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Anxiety and Depression in Transgender Individuals: The Roles of Transition Status, Loss, Social Support, and Coping

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Objective: The purpose of the current study was to examine facilitative and avoidant coping as mediators between distress and transition status, social support, and loss. ***Method:*** A total of 351 transgender individuals (n = 226 transgender women and n = 125 transgender men) participated in this study. Participants completed measures on transgender identity, family history of mental health concerns, perceptions of loss, coping, depression, and anxiety. ***Results:*** The rates of depressive symptoms (51.4% for transgender women; 48.3% for transgender men) and anxiety (40.4% for transgender women; 47.5% for transgender men) within the current study far surpass the rates of those for the general population. Structural equation modeling (SEM) was used to analyze the data—2 separate models were hypothesized, based on reports of anxiety or depression. The SEM results suggest that the processes for transgender women and transgender men are primarily similar for depression and anxiety; avoidant coping served as a mediator between transition status and both distress variables. Social support was directly related to distress variables, as well as indirectly related through avoidant coping. ***Conclusion:*** Results suggest the need for practitioners to focus on interventions that reduce avoidant coping strategies, while simultaneously increasing social support, in order to improve mental health for transgender individuals. Individuals who are in the beginning stages of their transition will use different coping strategies than those who are in later stages; interventions should be adjusted on the basis of the transition status of transgender clients.

Keywords: transgender, anxiety, depression, coping, social support

Transgender individuals are particularly vulnerable to mental health concerns and psychological distress (Nuttbrock, Rosenblum, & Blumenstein, 2002). Regarding specific psychological distress, research has shown that transgender individuals report higher levels of both anxiety and depression than the population as a whole. Depression has been reported to affect 16.6% of the total population, and combined anxiety disorders affect 28.8% of the United States population (Kessler, Berglund, Demler, Jin, & Walters, 2005). Within the literature, rates of depression for transgender individuals range from 48% to 62% (Clements-Nolle, Marx, Guzman, & Katz, 2001; Nemoto, Bodeker, & Iwamoto, 2011; Nuttbrock et al., 2010). Anxiety and overall distress rates for transgender individuals range from 26% to 38% (Hepp, Kraemer, Schnyder, Miller, & Delsignore, 2005; Mustanski, Garofalo, & Emerson, 2010).

Although the rates of depression, anxiety, and overall distress indicate above-average rates for the transgender population, there are only several studies that examine potential explanations for these findings. Nuttbrock et al. (2010) report that there is a significant positive relationship between gender-related abuse and depression in transgender women. The authors note that social stressors and/or ostracism from peers can explain a large amount of the depression that is reported by the individuals in their study. Budge et al.'s (2012) qualitative study indicates that distress varies on the basis of several factors, including the individual's transition process, coping mechanisms used, and level of social support. Although both of these studies provide insight into possible explanations for contributing factors to transgender individuals' distress, there continues to be a lack of generalizable information regarding the actual process through which individuals cope with and experience depression and anxiety.

Coping mechanisms have been theorized to buffer the effects of psychological distress due to stigma, internalized homo(or trans)phobia, and experiences of discrimination and violence (Meyer, 2003). Internalized transphobia is a result of internalizing negative messages based on societal expectations of what is considered to be "normal" (i.e., not deviating from gender norms) (Bockting & Coleman, 2007). As transgender individuals negotiate in a world that is rarely accepting of them, it is critical that the types of coping mechanisms (both adaptive and maladaptive) are better understood. It has been theorized that there are two general categories of

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coping styles: (a) emotion-focused coping and (b) problem-focused coping (Lazarus & Folkman, 1984); for the purposes of this study, these are described as facilitative and avoidant coping, respectively. Avoidant coping occurs when individuals try to prevent an emotional response to the stressor, for example, using avoiding behaviors or cognitions, minimizing the problem, trying to detach oneself from the outcomes of a problem, or overeating or drinking. Facilitative coping occurs when an individual seeks social support, learns new skills, changes behavior to positively adapt, and finds alternative means to seek happiness.

The coping literature related to transgender individuals is sparse and primarily focuses on transgender youth. For transgender youth, the role of coping within the family unit was related to making meaning of gender within the family and accepting the youth's gender identity (Wren, 2002). Coping, via collective self-esteem, has been found to temper psychological distress related to the adoption of an adult transgender male identity (Sanchez & Vilain, 2009). Contrary to other findings, higher levels of aspects of facilitative coping were found to be related to higher levels of depression, trauma symptoms, mental health problems, and internalizing/externalizing problems for transgender youth (Grossman, D'augelli, & Frank, 2011). Although several of these studies link coping to distress, none indicate different types of coping mechanisms and their relationship to mental health concerns for transgender individuals.

Just as coping appears to play a central role during the process of gender transitioning, social support also appears to influence transgender individuals' well-being and smoothness of gender transition (Budge et al., 2012). The importance of social support is not unique to the transgender population; humans are social beings who form attachments from the moment they are born (Bowlby, 1969). Additionally, humans have a fundamental need to belong that is adaptive (Leary, Tambor, Terdal, & Downs, 1995). The buffering hypothesis provided by Cohen and Wills (1985) theorizes that others can provide direct support, and thus help individuals cope with stressful events by being able to reveal stress to others and have them take on part of the burden of the stress (by listening or providing material help).

Typically, social support is indicated to be important for cisgender (e.g., individuals whose sex assigned at birth is congruent with their gender identity) men and women; however, women tend to use social support more than men (Dwyer & Cummings, 2001). Social support for transgender individuals has been shown to be particularly important in order to learn about medical resources, speak out about political concerns, and use social networks (Pinto, Melendez, & Spector, 2008), yet there are major deficits in social support for many transgender individuals (Budge et al., 2012). Furthermore, transgender individuals perceive that they receive less social support from family members when compared with their nontransgender siblings (Factor & Rothblum, 2007). Lower levels of social support in transgender individuals are related to more unprotected anal sex in transgender women (Golub, Walker, Longmire-Avital, Bimbi, & Parsons, 2010) and also predict more depressive symptoms (Nemoto et al., 2011). Although the literature indicates that social support is important in decreasing distress for transgender individuals, it is unclear what types of social support (e.g., family, friends, romantic) contribute to lower levels of distress.

Research findings are clear in regards to social support—the more social support an individual experiences, the less distress will be evident. Although these findings have been replicated manifold in research, less is known about the experiences of loss related to not having social support. Budge et al.'s (2012) results indicate that many transgender participants in the study reported loss on a multitude of levels—from social support loss (family, friends, and romantic partners) to financial loss. It has been established that loss is greatly related to psychological distress (Park, 2008). When not in reference to the death of a loved one, loss is most often related to the shattering of assumptions, hopes, and worldview (Gluhoski & Wortman, 1996; Schwartzberg & Janoff-Bulman 1991). Harvey and Miller (1998) indicate that a "pile-up" of losses often leads to increased distress that will contribute to a need to adapt to and cope with significant stressors. Though preliminary investigations shed light on the concept that transgender individuals do indeed experience loss, the extent of loss and the outcomes from loss are unknown.

Loss and social support are interwoven in their contribution to psychological distress and well-being. In addition to these factors, it is also possible that transgender identity may contribute to the level of distress experienced. Social identity theory (Tajfel & Turner, 1986) postulates that there is a strong link between self-concept and group identification. When individuals feel that their identity is not positively perceived, they may seek to leave their group or find other ways to achieve a positive identity (R. Brown, 2000). Devor's (2004) theoretical model of transgender identity development indicates that, as transgender individuals move from anxiety regarding their nonconforming identity, they begin to accept their identity and eventually experience prideful feelings. Bockting and Coleman's (2007) theoretical model describes several processes of transgender identity development, such as pre-coming out, coming out, exploration, intimacy, and identity integration—this model indicates that transitioning is a developmental process whereby individuals will achieve more of a sense of self as they move through the stages. Research indicates that the further along transgender individuals are in their identity *and* transition process (hereafter referred to as *transition status*), the more well-being they report (Budge et al., 2012). Although these findings are informative, there is a dearth of information regarding specific mental health outcomes (e.g., depression and anxiety) and an understanding of the specific relationships that occur during the identity process, coping, social support, and loss.

In the current study, our objective was to determine the relationship of transition status, perceptions of loss, social support, and coping on the mental health outcomes of depression and anxiety for transgender men and women by using structural equation modeling (SEM). Although several studies have focused on social support and specific types of coping as they relate to depression and distress, none of these studies has included the amount of perceived loss and the transition status of transgender men and women. In addition, social support is typically included as the coping mechanism; in this study, we hypothesized that facilitative and avoidant coping would mediate the relationship between specific types of support and mental health outcomes. As well, we hypothesized that facilitative and avoidant coping would mediate the relationship between perceived loss, transition status, and mental health outcomes. Previous studies have determined gender differences for men and women related to social support and

coping (e.g., Dwyer & Cummings, 2001), thus we were interested in testing differences between transgender men and women in the current study.

Method

Participants

For the purposes of the current study, only transgender men (n = 125) and transgender women (n = 226) were included in the analyses. Participants' ages ranged from 18 to 78 (M = 40.28, SD = 12.85). For race/ethnicity, participants indicated the following: 86.3% White (n = 303), 2.6% Hispanic/Latino (n = 9), 1.1% Black/African American (n = 4), 1.1% Asian/Asian American (n = 4), 0.6% Native American (n = 2), 7.4% biracial (n = 26), and 0.6% multiracial (n = 2). Transgender women (n = 226) reported the following sexual orientations: 29.2% bisexual (n = 66), 32.7% lesbian (n = 74), 18.1% straight/heterosexual (n = 41), 4.4% queer (n = 10), 9.7% questioning (n = 22), 1.3% gay (n = 3), and 3.3% (n = 10) identified identities in an open-ended category (e.g., pansexual, asexual, etc.). Transgender men (n = 125) reported the following sexual orientations: 19.2% bisexual (n = 24), 4.0% lesbian (n = 5), 20% straight/heterosexual (n = 25), 37.6% queer (n = 47), 3.2% questioning (n = 4), 9.6% gay (n = 12), and 4.2% (n = 8) identified identities in the open-ended category.

Measures

Demographic questions. Participants identified their gender identity by filling out an open-ended question where they could provide the best fitting identity label; thus, individuals who exclusively identified with a binary gender identity (e.g., transgender man, male-to-female transsexual) were included in the current study. Participants' transition status was assessed via an item that asked respondents to rate on a 5-point scale where they felt they were in their transition process (e.g., from 1 = "I have been thinking about transitioning, but have not taken any steps to make any changes" to 5 = "I have made most of the changes I have wanted to make and consider myself living full time with my transgender identity"); this question was developed on the basis of transgender identity theory (e.g., Devor, 2004) and qualitatively tested (Budge et al., 2012). Family history of anxiety and depression were assessed by asking participants whether they had biological family members (limited to parents, siblings, and grandparents) who had been diagnosed with anxiety or depression and to indicate which family members were provided with the diagnosis. This question was asked due to the high heritability of depression and anxiety (Hettema, Neale, & Kendler, 2001; Sullivan, Neale, & Kendler, 2000), thus it was important to control for family history of these mental health concerns.

Multidimensional Scale of Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS is a 12-item, 7-point Likert scale with three 4-item subscales: Significant Other (SO), Family (F), and Friends (FR). Previous research (Yeh et al., 2008) has yielded coefficient alphas for each of the three subscales: .92 for SO, .87 for F, and .85 for FR. Sample items for this scale include: "My family tries to help me," "I can talk about problems with my friends," and "There is a special person who is around when I am in need." For the current study, the following coefficient alphas emerged: .95 for SO, .93 for F, and .93 for FR. Cronbach's alpha for the overall scale in the current study was .91. Item-level responses were included in the analyses.

Ways of Coping (Revised) (WC-R; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). The WC-R scale is a 66-item questionnaire that asks respondents about specific stressful encounters and the thoughts and acts that people use to cope with these stressful demands. Out of the eight scales, the following four are negative coping mechanisms: Confrontive Coping, Distancing, Self-Controlling, and Escape Avoidance. The last four scales are positive coping mechanisms: Planful Problem Solving, Accepting Responsibility, Positive Reappraisal, and Seeking Social Support. Examples of items include the following: "I try not to act too hastily or follow my first hunch," "Wish that I could change what is happening or how I feel," "Accept it, since nothing can be done," and "I'm changing or growing as a person in a good way." Participants respond to a 4-point Likert scale (0 = *does not apply and/not used*; 3 = *used a great deal*). The instrument is scored by summing the items that comprise each subscale. The scale was normed on a community sample of middle-aged heterosexual married couples (Folkman et al., 1986). Coefficient alphas from the validation of the original study ranged from .70 to .88 for the subscales.

As the validation study for the WC-R was based on heterosexual couples, it was anticipated that the transgender population may differ in meaningful ways from the validation sample; thus, an exploratory factor analysis (EFA) was conducted on all 66 items in the inventory. The fit of the model was adequate based on the root-mean-square error of approximation (RMSEA): $\chi^2(1645) = 2763.40$, $p < .001$; RMSEA = .039, CI_{90} [.036, .042]; standardized root-mean-square residual (SRMR) = .035. The item loadings were not similar to those from the original sample for which the measure was tested. It was our interpretation that two clusters were indicative of the true latent variables underlying the construct of coping. Thus, the EFA for a two-factor model was examined. The fit of the model was adequate for a two-factor model based on the RMSEA: $\chi^2(2014) = 5016.59$, $p < .001$; RMSEA = .058, CI_{90} [.056, .060]; SRMR = .061. For the first factor, 19 items loaded higher than .4 (.41–.73). For the second factor, 16 items loaded higher than .4 (.44–.73). All other items were not included, either because they did not load more than .4 on any item or if there were two or more loadings higher than .4 on any single item. Inspection of the items that loaded onto Factor 1 (Facilitative Coping) revealed that they clustered around the concept of facilitative coping as a coping mechanism; that is, the participants were able to use the coping mechanism to help them with their problem. An example of a facilitative coping item from the WC-R is as follows: "Looked for the silver lining, so to speak; tried to look on the bright side of things." The items that loaded onto Factor 2 (Avoidant Coping) clustered around the concept of avoidance; that is, the participants avoided their problems in order to ignore the problem or chose not to deal with the issue. An example of an item from this factor is as follows: "Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc." Subscale sum scores for Facilitative Coping and for Avoidant Coping were used in this study, and the coefficient alpha for the current study was .87 for each of those subscales.

Transgender Perception of Loss Scale. The Transgender Perception of Loss Scale is a nine-item scale that asks participants to "indicate the extent to which you have experienced loss that has occurred since you began to identify as transgender." This scale was created for the purposes of this study. Loss is measured in the following areas: employment, housing, finances, healthcare, parental, sibling, romantic partner, children, and friends. These constructs were created from qualitative themes derived from a data set related to transgender emotional and coping processes (Budge et al., 2012). Participants respond to a 5-point Likert scale (1 = *no loss at all*, 2 = *a little loss*, 3 = *some loss*, 4 = *much loss*, and 5 = *extreme loss*). Sum scores on the measure were used in the analysis. Cronbach's alpha for the current study was .80.

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D measures depressive symptoms in the general population. This scale is a 20-item measure that asks questions regarding the major components of depressive symptomatology, such as depressed mood, loss of appetite, sleep disturbance, and feelings of worthlessness. Sample items include the following: "I felt hopeful about the future" and "I was bothered by things that usually don't bother me." Respondents answer items on a 4-point Likert scale, where a 0 indicates *rarely or none of the time*, and a 3 indicates *most or all of the time* during the past week. This measure has been shown to have high internal consistency and concurrent validity with clinical diagnosis (Boisvert, McCreary, Wright, & Asmundson, 2003). The scale is scored by summing all of the items per respondent and using the total score to indicate the cutoff for depression. Previous studies have found internal consistency reliability at .90 for the general population (Katz, Petracca, & Rabinowitz, 2009; Schleichter, Harris, Catley, & Nazir, 2009). This scale has been used with transgender men and women, where the typical cutoff point of 16 was used to indicate depression (Clements-Nolle et al., 2001). Cronbach's alpha for the current study, which included the sum scores, was .94.

Burns Anxiety Inventory (BAI; Burns, 1998). The BAI is a 33-item inventory that assesses symptoms of anxiety. This self-report measure asks respondents to indicate feelings of stress or anxiety (thoughts, feelings, and physical symptoms) over the past 7 days. Examples of items on this scale include "Feeling tense, stressed, 'uptight' or on edge" and "Fears that something terrible is going to happen." Respondents answer items on a 4-point Likert scale, where 0 = *not at all* and 3 = *a lot*. The measure is scored by adding all items together for a total score. The inventory allows for valid inferences and reliable scores (Burns, 1998); it is a part of standard clinical practice, assesses a wide range of anxiety symptoms, and is sensitive to change during treatment (Persons, Roberts, & Zalecki, 2003). This measure has been found to have internal consistency of .92 (Kring, Persons, & Thomas, 2007; Stice, Presnell, & Spangler, 2002). Cronbach's alpha for the current study, which included the sum scores, was .95.

Procedure

The instruments were posted online. Participants were recruited through social networking sites, and e-mails were sent to university and community lesbian, gay, bisexual, transgender centers around the United States. After the survey was posted, participants were given 2 months to participate. All procedures were reviewed and approved by the Institutional Review Board at a large midwestern university. A total of 603 participants logged in to participate in the current study, with a completion rate at 74%. Because there can be risk of participants completing the survey more than one time, we checked participants' data with IP addresses to determine duplicates; this is recommended practice with data collected online (Kraut et al., 2004). There were four instances of repeated IP addresses—in two instances, the participant had stopped the survey after the demographic information, but had finished at the second try, thus the first responses were deleted. In the other two instances, demographic information differed among all responses and thus were retained; many computers are shared (e.g., roommates, libraries, families), and it is common practice to retain responses where the demographic information differs (Gosling, Vazire, Srivastava, & John, 2004). Only participants who completed the entirety of the survey were included in the final data set ($N = 446$), which included the following identities: transgender women, transgender men, genderqueer individuals (e.g., individuals who typically do not identify with the gender binary of male/female), and crossdressers. Because hypotheses were specific to comparing transgender women and men, genderqueer and crossdressing individuals were not included in the current study.

Analytic Strategy

All analyses were conducted using Mplus 7 (Muthén & Muthén, 1998–2011). First, we examined the hypothesized hybrid model for all participants. In this model (see Figure 1), the F, FR, and SO subscales of the MSPSS are latent constructs, each measured by the four items on the subscale. These three subscales are indicators of a higher order factor, Social Support. Transition Status, Loss, and Social Support were hypothesized to predict two different outcomes in two separate models: (a) Depression, controlling for family history of depression and (b) Anxiety, controlling for family history of anxiety. Family history was included as a control variable because previous research has indicated a possible genetic link between depression and anxiety (Hettema et al., 2001; Sullivan et al., 2000); we wanted to control for the possibility of genetic factors contributing to mental health concerns. We also included age and income as control variables (not included in the diagram for visual clarity). Additionally, the relationships between transition status, loss, and social support and the outcome were predicted to be mediated through both Facilitative Coping and Avoidant Coping. Finally, based on prior theory (e.g., affect phobia; McCullough et al., 2003), we specified that Avoidant Coping is a predictor of Facilitative Coping. Adequate fit of the model was indicated by a nonsignificant chi-square. In addition, the comparative fit index (CFI), the RMSEA, and the SRMR were used. We used Hu and Bentler's (1999) recommended guidelines for acceptable fit of CFI $\geq .95$, RMSEA $\leq .06$, and SRMR $\leq .08$. Additionally, we examined whether RMSEA was statistically significantly greater than .05 and whether the upper bound of the confidence value exceeded .10, which may indicate a serious problem (Browne & Cudeck, 1993). To identify potential misfit in the hypothesized measurement model, we examined modification indices combined with theoretical rationale. To examine whether being a transgender man or woman moderated the hypothesized processes in the model, we estimated a multiple-group hybrid model and assessed whether the estimated path coefficients varied across the two groups using the chi-square difference test for more

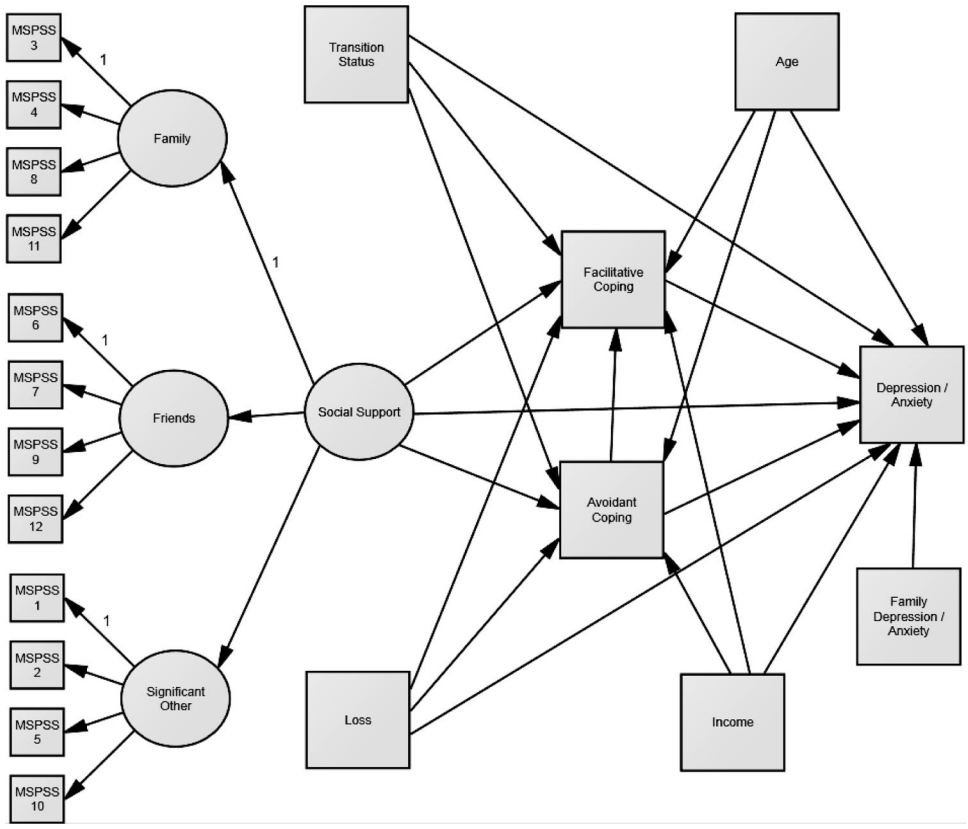

Figure 1. Hypothesized hybrid mediation model predicting depression and anxiety (separately). (Exogenous variable correlations omitted for visual clarity.) MSPSS = Multidimensional Scale of Social Support.

restrictive models and using the Wald test to examine specific parameters in the model.

Results

Preliminary Results

Prior to conducting SEM analyses, frequencies and independent *t* tests were performed on the psychological distress measures to determine the extent of distress, as well as differences between groups. A total of 51.4% ($n = 116$) of transgender women reported symptoms of depression higher than or at the clinical cutoff of 16 points ($M = 20.08$, $SD = 13.81$); similarly, 48.3% ($n = 65$) of transgender men reported depression symptoms higher than the cutoff ($M = 19.03$, $SD = 13.44$). For anxiety, 40.4% ($n = 91$) of transgender women reported significant anxiety symptomatology (e.g., higher than or at the clinical cutoff of 21) results ($M = 21.94$, $SD = 17.76$), whereas 47.5% ($n = 64$) of transgender men reported significant anxiety symptomatology ($M = 24.91$, $SD = 19.35$). The *t*-test results between transgender men and women were not statistically significant for depression, $t(322) = 0.66$, $p = .51$, or anxiety, $t(309) = -1.38$, $p = .17$. Means, standard deviations, and correlations among measures are presented in Table 1.

Primary Results: Depression

Measurement model. Using the two-step approach recommended by Kline (2011), we first examined a measurement model with no structural paths (i.e., the structural portion was just-identified with all correlations) to examine model fit prior to estimating the full structural model. The original hypothesized model had the following model fit: $\chi^2(139) = 406.98$, $p < .001$; RMSEA = .074, CI_{90} [.064, .083], $p < .001$; CFI = .940; SRMR = .049. With the exception of SRMR, all fit indices indicated that the model fit was not in the a priori-specified acceptable range. Thus, we examined the modification indices and the wording of the items on the MSPSS to determine potential respecifications. We added three residual correlations between MSPSS items (one for each subscale): (a) MSPSS3 ("My family really tries to help me") with MSPSS11 ("My family is willing to help me make decisions"), unlike the other two items on the F subscale, these items were about the respondent's family actively trying or being willing to help; (b) MSPSS9 ("I have friends with whom I can share my joys and sorrows") and MSPSS12 ("I can talk about my problems with my friends"), unlike the other two items on the FR subscale, these items were about communicating with friends; and (c) MSPSS5 ("I have a special person who is a real source of comfort to me") and MSPSS10 ("There is a special person in my life who cares about my feelings"). Additionally, we added a residual correlation between the FR subscale and the SO subscale given that individuals have more choice over who their friends and significant others are than they do over their family; thus, individuals are likely to choose friends and significant others who provide a certain level of support, whereas they cannot choose their family based on the level of support. The measurement model

Table 1
Means, Standard Deviations, and Correlations Among Major Variables

Scale	*M*	*SD*	α	1	2	3	4	5	6	7	8	9	10	11
1. Family History of Depression	1.56	0.50		—										
2. Family History of Anxiety	1.75	0.43		.43**	—									
3. Age	40.28	13.85		.14*	.14*	—								
4. Income	3.72	2.11		.13*	.11	.41**	—							
5. Transition Status	39.68	13.66	.94	−.07	−.03	.07	−.15*	—						
6. CES-D	56.06	18.42	.95	.21**	−.15**	−.11*	−.20**	−.22**	—					
7. BAI	16.69	7.88	.80	−.29**	−.27**	−.20**	−.24**	−.14*	.81**	—				
8. Loss	44.84	9.43	.87	−.11	−.11	.14*	−.10	.26**	.27**	.23**	—			
9. Facilitative Coping	34.12	9.59	.87	−.02	−.07	.02	.02	.13*	−.18**	−.08	.11*	—		
10. Avoidant Coping	58.17	16.46	.91	−.18**	−.16**	−.21**	−.25**	−.26**	.67**	.65**	.19**	−.01	—	
11. MSPSS	39.68	13.66	.94	−.04	−.02	−.12*	.11*	.15**	−.41**	−.28**	−.28**	−.25**	−.30**	—

Note. Income was assessed on an 8-point scale, with 3 = $20,000–$29,999 and 4 = $30,000–$39,999. CES-D = Center for Epidemiologic Studies Depression Scale; BAI = Burns Anxiety Inventory; MSPSS = Multidimensional Scale of Social Support.
* $p < .05$. ** $p < .01$.

with these four additional correlations had the following model fit: $\chi^2(135) = 275.89$, $p < .001$; RMSEA = .055, CI_{90} [.045, .064], $p = .20$; CFI = .969; SRMR = .044, indicating good model fit.

Multiple-group analysis. We estimated the full hybrid model and conducted the multiple-group analyses, beginning with establishing measurement invariance or partial measurement invariance between the two groups (transgender women and men) and then examining whether there were differences in the structural paths. The full hypothesized structural model (with the respecifications to the measurement model) provided good model-data fit, $\chi^2(142) = 299.34$, $p < .001$; RMSEA = .057, CI_{90} [.048, .066], $p = .11$; CFI = .964; SRMR = .050. Next, we estimated a model in which all parameters were unconstrained between the two groups. The model fit indices were still within the acceptable ranges, $\chi^2(284) = 460.18$, $p < .001$; RMSEA = .060, CI_{90} [.050, .070], $p = .05$; CFI = .960; SRMR = .059.

We established measurement invariance with the exception of one residual correlation. When we constrained the factor loadings and all residual covariances to be equal between the two groups, the model fit was slightly less than adequate, $\chi^2(297) = 479.89$, $p < .001$; RMSEA = .060, CI_{90} [.050, .070], $p = .05$; CFI = .958; SRMR = .061. Unconstraining MSPSS3 and MSPSS11 from the F subscale but constraining the other three residual correlations to be equal resulted in good model fit indices, $\chi^2(296) = 464.34$, $p < .001$; RMSEA = .058, CI_{90} [.047, .067], $p = .11$; CFI = .962; SRMR = .060, and also was preferred over the unconstrained model, $\chi^2(12) = 4.16$, $p = .98$, and the model with all correlations constrained, $\chi^2(1) = 15.55$, $p < .001$, thus indicating that the measurement models were equivalent for transgender men and women with the exception of the residual correlation between MSPSS3 and MPSS11.

Before examining whether the specified structural paths were moderated by being a transgender woman or man, we examined whether the correlations among the exogenous variables, which were in the model as an assumption, could be constrained between the two groups. When we constrained all of those correlations (among Transition Status, Loss, Social Support, Age, and Income), the CFI was .958, and the chi-square difference test indicated that the model with those correlations unconstrained was preferred, $\chi^2(10) = 28.03$, $p = .002$; however, with the correlations between Transition Status and Social Support and among Social Support, Loss, Age, and Income constrained to be equal and with the correlations between Transition Status and Loss, Age, and Income freely estimated in the two groups, the model was preferred over the model with all correlations constrained, $\chi^2(3) = 22.05$, $p < .001$, and over the model with none of these correlations constrained, $\chi^2(7) = 5.98$, $p = .54$. Although most of the exogenous variable correlations were equivalent for transgender men and women, there was a positive relationship between Transition Status and Loss and between Age and Transition Status and a negative relationship between Income and Transition Status for transgender women, whereas there was no relationship between Transition Status and Loss, Age, or Income for transgender men.

Our primary interest was in the structural paths in the model and whether those were moderated by group (transgender men or women). To do this, we first examined the structural paths in the final model, with all loadings and most correlations constrained to be equal. The structural paths from this model are provided in Table 2. Next, we conducted Wald tests to examine whether each structural path was equal between the two groups. As shown in Table 2, the only structural paths that were statistically significantly different between the two groups were Depression regressed on Facilitative Coping and Depression regressed on Income. Thus, we reran the model with all other structural paths constrained to be equal. This final model had adequate model fit, $\chi^2(320) = 488.39$, $p < .001$; RMSEA = .055, CI_{90} [.045, .065], $p = .19$; CFI = .962; SRMR = .064, and was preferred over the more parameterized model without the structural paths constrained to be equal, $\chi^2(17) = 18.07$, $p = .38$, and over the more parsimonious model with all structural paths constrained to be equal, $\chi^2(2) = 6.04$, $p = .049$. Therefore, we used this as our final model to examine the hypothesized relationships.

Final model. The final structural model with unstandardized path estimates is shown in Figure 2. As expected, family history of depression has a positive relationship with one's current level of depression, hence the need to control for this variable. The model explains 55% and 59% of the variability in depression in transgender women and men, respectively, and it explains 23% and 22% of the variability in Facilitative Coping and 32% and 31% of the variability in Avoidant Coping in transgender men and women, respectively (with all these R^2 values being statistically significant). As shown in Table 3, Loss does not have a statistically

Table 2
Structural Paths (Unstandardized) From Depression and Anxiety Models With Measurement Constraints and Test of Equality of Those Paths Between Groups

		Depression				Anxiety			
DV	IV	Trans women estimate (*SE*)	Trans men estimate (*SE*)	Wald test	*p*	Trans women estimate (*SE*)	Trans men estimate (*SE*)	Wald test	*p*
Facilitative Coping	Transition Status	0.33 (1.12)	−1.10 (1.54)	0.60	.44	0.18 (1.22)	−0.95 (1.52)	0.35	.55
	Loss	0.39 (0.13)**	0.53 (0.23)*	0.32	.57	0.41 (0.14)**	0.49 (0.22)*	0.09	.77
	Social Support	5.49 (1.70)**	4.31 (2.19)*	0.19	.66	5.86 (1.96)**	4.14 (2.17)	0.36	.55
	Avoidant Coping	0.27 (0.10)**	−0.06 (0.14)	3.79	.05	0.31 (0.11)**	−0.06 (0.14)	4.45	.04
	Age	0.06 (0.06)	−0.06 (0.09)	1.22	.27	0.09 (0.07)	−0.06 (0.10)	1.71	.19
	Income	−0.21 (0.49)	−0.67 (0.96)	0.19	.66	−0.38 (0.52)	−0.92 (1.02)	0.24	.62
Avoidant Coping	Transition Status	−2.99 (0.98)**	−1.82 (1.42)	0.40	.53	−2.54 (1.06)*	−1.75 (1.41)	0.21	.65
	Loss	0.11 (0.11)	−0.16 (0.21)	0.04	.85	0.06 (0.12)	0.18 (0.21)	0.24	.62
	Social Support	−3.19 (1.15)**	−2.69 (1.64)	0.06	.80	−3.62 (1.27)**	−2.78 (1.64)	0.17	.68
	Age	−0.10 (0.05)*	−0.23 (0.08)**	1.90	.17	−0.14 (0.05)*	−0.24 (0.08)**	1.18	.28
	Income	−0.89 (0.42)*	−0.78 (0.89)	0.013	.91	−0.46 (0.45)	−0.45 (0.94)	0.00	.99
Distress	Facilitative Coping	0.01 (0.11)	−0.39 (0.14)**	5.01	.03	0.11 (0.16)	−0.23 (0.19)	1.79	.18
	Avoidant Coping	0.72 (0.11)***	0.57 (0.13)***	0.78	.38	0.90 (0.17)***	1.20 (0.17)***	1.48	.22
	Transition Status	−0.25 (1.10)	−0.82 (1.61)	0.09	.77	−0.57 (1.57)	−1.61 (2.13)	0.15	.69
	Loss	−0.03 (0.15)	0.35 (0.25)	1.82	.18	0.18 (0.21)	0.19 (0.33)	0.00	.98
	Social Support	−5.19 (2.07)*	−0.55 (2.01)	2.63	.11	−3.29 (2.77)	−0.52 (2.73)	0.51	.48
	Family History	2.59 (1.33)	4.02 (1.86)*	0.39	.53	9.22 (2.38)***	3.75 (2.70)	2.32	.13
	Age	−0.07 (0.06)	−0.04 (0.10)	0.05	.83	−0.06 (0.09)	−0.10 (0.14)	0.06	.81
	Income	0.51 (0.49)	−2.91 (1.11)**	8.01	.005	0.30 (0.75)	−3.57 (1.45)*	5.63	.02

Note. DV = dependent variable; IV = independent variable; trans = transgender.
* $p < .05$. ** $p < .01$. *** $p < .001$.

significant direct, indirect, or total effect on Depression. Although Transition Status does not have a statistically significant direct effect on Depression, it does have a statistically significant negative indirect effect on it through Avoidant Coping. Finally, the level of Social Support that one receives has statistically significant direct, indirect, and total effects on Depression. The greater the Social Support one receives, the lower their Depression. The indirect effect between Social Support and Depression goes through Avoidant Coping, with the indirect effect explaining 36% of the total relationship between Social Support and Depression for transgender women and 32% of that relationship for transgender men (i.e., partial mediation). Thus, Avoidant Coping serves as a mediator for the relationship between Transition Status and Depression and between Social Support and Depression. However, Facilitative Coping does not serve as a mediator for the relationship between any of the predictors and Depression.

In the examination of the moderating effect of being a transgender man or woman, six parameters were found to be different. In this final model, the correlation between MSPSS3 and MPSS11 on the F subscale was only .108 ($p = .26$) for transgender women, but it was .539 ($p < .001$) for transgender men, suggesting a stronger residual correlation between these two indicators of Family Support. The correlation between Transition Status and Loss was statistically significant for transgender women ($r = .334$, $p < .001$), suggesting that the further along they are in their transition status, the greater their feelings of loss; however, that relationship was not statistically significant for transgender men ($r = .091$, $p = .28$). Additionally, although age and income were not related to Transition Status for transgender men ($r = .003$, $p = .97$; $r = .05$, $p = .61$; respectively), they were related to Transition Status for transgender women ($r = .19$, $p = .002$; $r = -.19$, $p = .002$; respectively), meaning that for transgender women, there is a small relationship indicating that older individuals and individuals with less income are further in their transition status. However, Income predicted Depression in transgender men ($\beta = -0.15$, $p = .049$), indicating that transgender men with greater income are slightly less depressed, but not in transgender women ($\beta = 0.03$, $p = .55$). Finally, although the effect of Facilitative Coping on Depression was found to be different using the Wald test, the structural path for both groups was not statistically significant and did not result in different conclusions concerning direct, indirect, and total effects in the model.

Primary Results: Anxiety

Measurement model. Similar to the Depression analyses, we used the two-step approach recommended by Kline (2011) and first examined a measurement model with no structural paths (i.e., the structural portion was just-identified with all correlations) to examine model fit prior to estimating the full structural model. The original hypothesized model had the following model fit: $\chi^2(139) = 417.91$, $p < .001$; RMSEA = .076, CI_{90} [.067, .084], $p < .001$; CFI = .937; SRMR = .050. With the exception of SRMR, all fit indices indicated that the model fit was not in the a priori-specified acceptable range. Thus, we made the same respecifications for this model as we did with the Depression measurement model. The measurement model with the four additional correlations (MSPSS3 with MSPSS11, MSPSS9 with MSPSS12, MSPSS5 with MSPSS10, and Friends with Significant Other) had the following model fit: $\chi^2(135) = 284.24$, $p < .001$; RMSEA = .056, CI_{90} [.047, .065], $p = .13$; CFI = .966; SRMR = .044, indicating good model fit.

Multiple-group analysis. Having established the measurement model for the Anxiety model, we then estimated the full

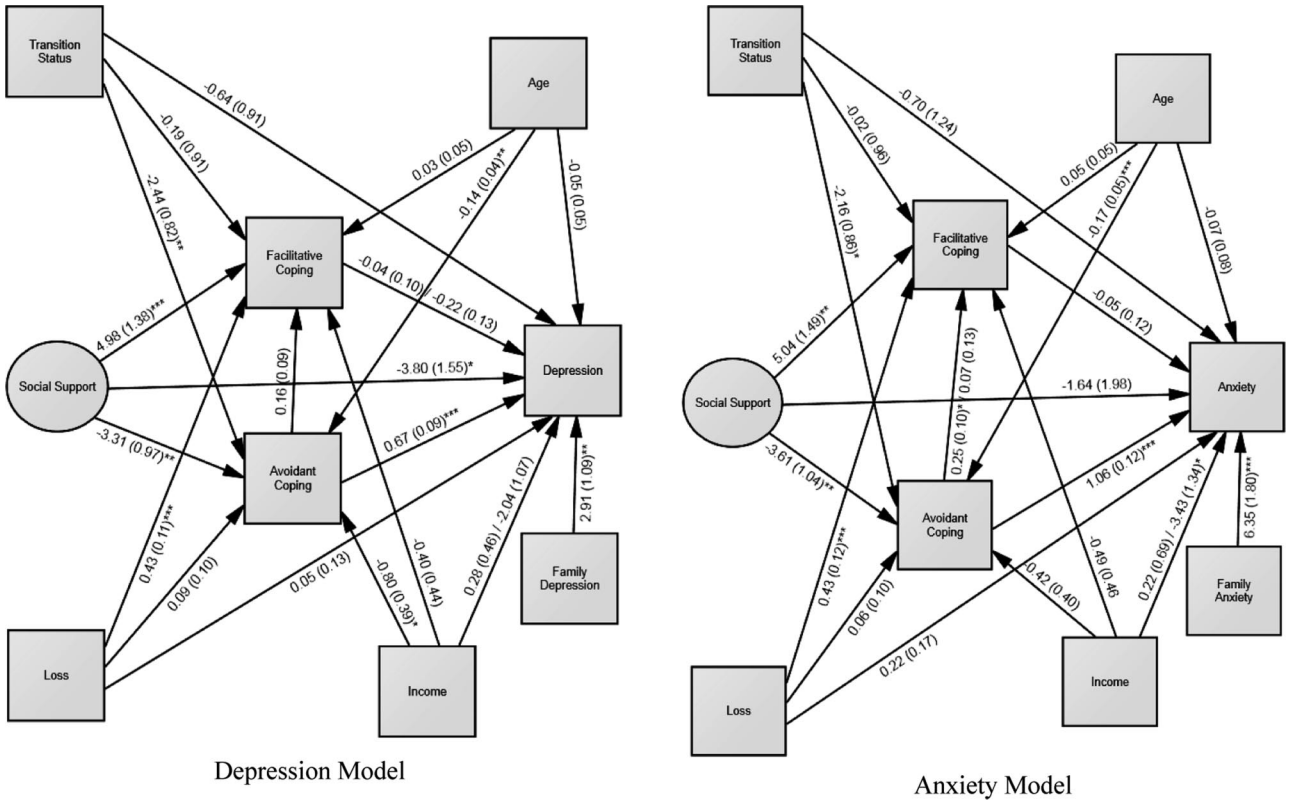

Figure 2. Unstandardized path coefficients (*SE*) for structural causal paths in final constrained Depression and Anxiety models. Several parameters were not constrained to be equal between groups. For those parameters, the first estimate (*SE*) is for transgender women, and the second is for transgender men. (Exogenous variable correlations omitted for visual clarity.) * $p < .05$. ** $p < .01$. *** $p < .001$.

hybrid model and conducted the multiple-group analyses. First, we established measurement invariance or partial measurement invariance between the two groups (transgender men and women), and then we examined whether there were differences in the structural paths. The model fit statistics for the full hypothesized structural model (with the respecifications to the measurement model) indicated good model-data fit, $\chi^2(142) = 296.24$, $p < .001$; RMSEA = .056, CI_{90} [.047, .065], $p = .12$; CFI = .964; SRMR = .048. Additionally, a model in which all parameters were unconstrained between the two groups exhibited good model fit, $\chi^2(284) = 449.43$, $p < .001$; RMSEA = .058, CI_{90} [.048, .068], $p = .09$; CFI = .962; SRMR = .056.

Similar to the Depression model, we established measurement invariance but allowed one residual correlation to vary between the two groups. When we constrained the factor loadings and all residual covariances to be equal between the two groups, the model fit was adequate, $\chi^2(297) = 469.69$, $p < .001$; RMSEA = .058, CI_{90} [.048, .068], $p = .09$; CFI = .960; SRMR = .057. However, given the finding with the Depression outcome regarding the residual correlation between MSPSS3 and MSPSS11 from the F subscale, we tested whether allowing it to be freely estimated but constraining the other three correlations to be equal resulted in better model. Indeed, the partial measurement invariance model had strong model fit indices, $\chi^2(296) = 453.56$, $p < .001$; RMSEA = .056, CI_{90} [.045, .066], $p = .18$; CFI = .964; SRMR = .057; was preferred over the model with that correlation constrained, $\chi^2(1) = 16.13$, $p < .001$; and was preferred over the unconstrained model as well, $\chi^2(12) = 4.16$, $p = .98$, thus indicating that the models were equivalent for transgender women and men with the exception of the residual correlation between MSPSS3 and MPSS11.

Similar to the Depression model, we could not constrain all three correlations among the exogenous variables to be equal across the two groups, with the CFI being .959, and the chi-square difference test indicating that the model with those correlations unconstrained was preferred, $\chi^2(10) = 29.95$, $p = .001$; however, a model that constrained correlations between Transition Status and Social Support and among Social Support, Loss, Age, and Income and that allowed correlations between Transition Status and Loss, Age, and Income to be freely estimated in the two groups was preferred over the model with none of these correlations constrained, $\chi^2(7) = 5.19$, $p = .64$, and over the model with all of these correlations constrained, $\chi^2(3) = 24.76$, $p < .001$. This indicates that the exogenous variable correlations were equivalent for transgender men and women with the exception of the correlation between Transition Status and Loss, Age, and Income, in the same direction as was found in the Depression analyses.

We were primarily interested in the structural paths in the model and whether those paths were moderated by group (transgender women and men). We first examined the structural paths in the

Table 3
Total, Indirect, and Direct Unstandardized Effects for Final Depression and Anxiety Models (With Measurement and Structural Constraints)

Effect	Depression trans women estimate (*SE*)	Depression trans men estimate (*SE*)	Anxiety trans women estimate (*SE*)	Anxiety trans men estimate (*SE*)
Between Loss and Distress				
Total	0.09 (0.15)	0.01 (0.16)	0.27 (0.19)	0.27 (0.20)
Indirect	0.04 (0.08)	−0.04 (0.09)	0.05 (0.12)	0.04 (0.12)
Through Facilitative Coping	−0.02 (0.04)	−0.09 (0.06)	−0.02 (0.05)	−0.02 (0.05)
Through Avoidant Coping	0.06 (0.07)	0.06 (0.07)	0.07 (0.11)	0.07 (0.11)
Through Avoidant Coping & Facilitative Coping	−0.001 (0.001)	−0.003 (0.004)	−0.001 (0.002)	0.000 (0.001)
Direct	0.05 (0.13)	0.05 (0.13)	0.22 (0.17)	0.22 (0.17)
Between Transition Status and Distress				
Total	−2.25 (1.19)	−2.15 (1.24)	−2.95 (1.63)	−2.97 (1.65)
Indirect	−1.62 (0.63)*	−1.52 (0.69)*	−2.25 (0.97)*	−2.27 (0.99)*
Through Facilitative Coping	0.01 (0.04)	0.04 (0.20)	0.001 (0.05)	0.001 (0.05)
Through Avoidant Coping	−1.64 (0.63)*	−1.64 (0.63)*	−2.28 (0.98)*	−2.28 (0.98)*
Through Avoidant Coping & Facilitative Coping	0.02 (0.04)	0.08 (0.06)	0.03 (0.07)	0.008 (0.02)
Direct	−0.64 (0.91)	−0.64 (0.91)	−0.70 (1.24)	−.70 (0.57)
Between Social Support and Distress				
Total	−6.23 (1.56)***	−6.99 (1.71)***	−5.65 (1.96)**	−5.68 (1.93)**
Indirect	−2.43 (0.73)**	−3.19 (0.83)***	−4.01(1.26)**	−4.04 (1.30)**
Through Facilitative Coping	−0.22 (0.45)	−1.08 (0.60)	−0.25 (0.60)	−0.25 (0.60)
Through Avoidant Coping	−2.23 (0.60)***	−2.23 (0.60)***	−3.81 (1.11)**	−3.81 (1.11)**
Through Avoidant Coping & Facilitative Coping	0.02 (0.05)	0.11 (0.10)	−0.04 (0.11)	0.01 (0.04)
Direct	−3.80 (1.55)*	−3.80 (1.55)*	−1.64 (1.98)	−1.64 (1.98)

Note. trans = transgender.
* $p < .05$. ** $p < .01$. *** $p < .001$.

final model, with the constraints described above applied to the model (see Table 2). Similar to in the Depression model, there was a statistically significant difference between the two groups for Anxiety when regressed on Income. However, unlike in the Depression model, there was not a statistically significant difference between the two groups for Anxiety when regressed on Facilitative Coping. Although in the Depression model the difference between the two groups for Facilitative Coping on Avoidant Coping was just above our alpha level, in the Anxiety model, there was a statistically significant difference in the effect of Avoidant Coping on Facilitative Coping. As a result, we reran the model with all structural paths constrained to be equal besides Anxiety regressed on Income and Facilitative Coping regressed on Avoidant Coping. This final model had adequate model fit, $\chi^2(320) = 472.41$, $p < .001$; RMSEA = .053, CI_{90} [.042, .063], $p = .32$; CFI = .965; SRMR = .062, and was preferred over the more parameterized model without the structural paths constrained to be equal, $\chi^2(17) = 13.66$, $p = .69$, and over the more parsimonious model with all structural paths constrained to be equal, $\chi^2(2) = 8.20$, $p = .02$. Therefore, we use this as our final model to examine the hypothesized relationships.

Final model. The final structural model with unstandardized path estimates is shown in Figure 2. As expected, family history of anxiety has a positive relationship with one's current level of anxiety, hence the need to control for this variable. The model explains 47% of the variability in anxiety in transgender women and 53% of the variability in anxiety in transgender men. Additionally, it explains 23% and 26% of the variability in Facilitative Coping and 33% and 34% of the variability in Avoidant Coping in transgender women and men, respectively (with all these R^2 values being statistically significant). As shown in Table 3, Loss does not have a statistically significant direct, indirect, or total effect on Anxiety, just as it did not have any effects on Depression. Although Transition Status does not have a statistically significant direct effect on Anxiety, it does have a statistically significant negative indirect effect through Avoidant Coping. Finally, the level of Social Support that one receives has statistically significant indirect and total effects on Anxiety, but once the indirect effect is accounted for, there is not a statistically significant direct effect of Social Support on Anxiety. The greater the Social Support one receives, the lower one's Anxiety. The indirect effect between Social Support and Anxiety goes through Avoidant Coping. Although the direct effect between Social Support and Anxiety is not statistically significant, the indirect effect only explains 67% of the total effect between the two constructs. Thus, Avoidant Coping serves as a mediator for the relationship between Transition Status and Anxiety and between Social Support and Anxiety, but Facilitative Coping does not serve as a mediator for the relationship between any of the predictors and Anxiety.

In the examination of the moderating effect of being a transgender man or woman, six parameters were different in the Anxiety model. The correlations that were different between the two groups were the same as those found in the Depression model: correlation between MSPSS3 and MPSS11 = .108 ($p = .26$) for transgender women, .544 ($p < .001$) for transgender men; correlation between Transition Status and Loss = .334 ($p < .001$) for transgender women, .076 ($p = .37$) for transgender men; correlation between Transition Status and Age = .208 ($p = .001$) for transgender women, .007 ($p = .94$) for transgender men; and correlation between Transition Status and Income = −.201 ($p = .001$) for transgender women, .041 ($p = .66$) for transgender men. Again, this suggests a stronger residual correlation between these

two indicators of Family support for transgender men that the further along transgender women are in their transition status, the greater their feelings of loss, the older they are, and the less income they have (without the same relationships holding for transgender men). Additionally, Income predicted Anxiety in transgender men ($\beta = -0.18$, $p = .008$), indicating that transgender men with greater income are slightly less anxious, but not in transgender women ($\beta = 0.02$, $p = .75$). Finally, although Avoidant Coping did not predict Facilitative Coping for transgender men ($\beta = 0.07$, $p = .57$), it did for transgender women ($\beta = 0.24$, $p = .01$). However, that did not result in different conclusions concerning the direct, indirect, and total effects in the model.

Discussion

Our primary goal in this study was to examine depression and anxiety in transgender male and female populations—with emphasis given to understanding the relationships among loss, social support, transition status, and coping that contribute to, or alleviate, distress. Prior to testing our main hypotheses, our results indicate that 51% of transgender women and 48% of transgender men report significant depressive symptomatology. These rates are in line with other studies that have examined depression rates for transgender men and women (Clements-Nolle et al., 2001; Nemoto et al., 2011; Nuttbrock et al., 2010). However, the rates of anxiety for this study appear to be greater than those that have been previously reported in the literature; 47% of transgender men and 40% of transgender women report significant anxiety symptomatology, both of which are higher than any of the upper limits of 26%–38% reported within the literature (Hepp et al., 2005; Mustanski et al., 2010).

Both the anxiety and depression models indicate similar results. This finding is not surprising on the surface, as there is a large amount of comorbidity between depression and anxiety (Mathew, Pettit, Lewinsohn, Seeley, & Roberts, 2011). However, according to minority stress theory, individuals who have invisible minority identities may experience more anxiety due to hypervigilance and experiences of discrimination (Meyer, 2003). Instead, it appears that both anxiety and depression are indicative of distress for transgender men and women and that avoidant coping served as a mediator between transition status and depression/anxiety. Transition status was negatively related to avoidant coping, indicating that the further along individuals were in their identity process, the less avoidant coping they used, but that the more avoidant coping individuals used, the more depression and anxiety they reported. Thus, it appears that individuals who are in the beginning stages of their transition process use more avoidant coping, and thus experience more distress. Previous studies have shown that more distress may be exhibited in the beginning stages of the gender transition process (Budge et al., 2012). Studies have also shown that using more cognitive avoidant coping strategies increases symptoms of depression and anxiety for nontransgender populations (Blalock & Joiner, 2000; Holahan, Moos, Holahan, Brennan, & Schutte, 2005). However, previous studies have not looked at any of these variables in the context of how identity, coping, and distress influence and relate to one another.

The multigroup model results also indicate that social support is directly and indirectly related to depression and anxiety, with avoidant coping as a mediating variable. There is a large body of research that indicates that more social support is related to lower levels of depression and anxiety (Wareham, Fowler, & Pike, 2007; Wester, Christianson, Vogel, & Wei, 2007; Wright & Perry, 2006); this finding was also present in the current study. Social support is less commonly researched as being related to distress measures with coping as a mediating variable. However, Valentiner, Holahan, and Moos (1994) indicate that coping *should* be conceptualized as a mediating variable, especially when personal and social resources are directly predicting mental health outcomes. The findings in this study indicate that the less social support a transgender individual has available, the more avoidant coping he or she will use, and in turn, more depressive and anxiety symptoms will be reported.

It should be noted that facilitative coping was not seen as a mediator in either of the models in which social support and transition status indirectly predicted depression and anxiety. This null finding is of particular importance, given that several of the main interventions for depression and anxiety incorporate facilitative coping mechanisms into treatment planning (e.g., Coping With Depression course; Lewinsohn, Clarke, Rohde, Hops, & Seeley, 1996). Instead, it appears that it is the absence of avoidant coping that may result in less psychological distress. This finding is logical when considering how avoidance causes distress. Research has shown that the avoidance of emotional experiences, via suppression, may not have an impact on subjective experiences but leads to increases in sympathetic arousal (Gross, 1998; Gross & Levenson, 1997). Conceptualized as "ironic process" (Wegner & Zanakos, 1994), the more an individual attempts to avoid a situation, the more they will think about what they have been attempting to repress. This process appears to be used often with transgender individuals—Budge et al. (2012) found that denial and suppression of transgender identity were central to the beginning stages of transgender identity and emotional avoidance. It is possible that interventions that have been focusing on increasing facilitative coping may be able to reconceptualize treatment planning to intervene on avoidance strategies used for coping.

An additional finding from this study was that gender identity moderated several variables within the models. In both models, transgender men endorsed using more family help with making decisions and providing support than transgender women. There is limited research regarding transgender men and family members, thus there is not current scholarly evidence that is consistent with this particular finding. It is possible that transgender men were socialized to be more involved with their families when they were being raised female, as women's roles in families are more prescribed than men's (Knudsen & Wærness, 2001), thus, transgender men may gain some advantages of support from this process. Transitioning to being male has been perceived as more acceptable, due to the power status of men in society (Schilt, 2010), which may be easier for family members to provide support to transgender men. An additional variable that was moderated by gender identity was loss as it relates to transition status. As transgender women proceeded through their transition process, they reported experiencing more loss than transgender men. Transgender women may experience more distressing emotions, discrimination, and relationship concerns related to not being able to pass (e.g., be perceived as women; Gagné & Tewksbury, 1998). Not being able to pass has been linked to specific losses, such as job loss (Budge, Tebbe, & Howard, 2010); at the same time,

transgender individuals have reported that the further along they are in their identity process, the more hopes for the future they exhibit—such as being read as female (Budge et al., 2012). Therefore, it is possible that the further along transgender women are within their transition process, the more loss they will also report due to their hopes about their appearance not coming to fruition.

Additional findings that were gender specific were related to age and income. Results from this study indicate that when transgender women are further along in their transition, they tend to be older and have less income. Grant et al. (2011) report that 15% of transgender women report yearly household income of $10,000 or less and that 16% of transgender men report the same level of income; it is possible that the findings from this study indicate that age and transition status are important factors to consider when providing treatment to transgender women when compared with transgender men. Also related to income, transgender men who reported having higher incomes also reported less depressive symptomology. It appears that income is a protective factor for transgender men, but not transgender women; higher incomes and income disparities are highly related to traditional masculinity (Coughlin & Wade, 2012); thus, it may be that transgender men experience less depression when they feel they are fulfilling gender roles. The final finding from this study was that avoidant coping predicted facilitative coping as they relate to anxiety for transgender women, but not transgender men. As noted in the literature review, women seek social support at higher rates than men (Dwyer & Cummings, 2001); thus, it could be that transgender women are also able to access social support after they have first used avoidance mechanisms, because gender socialization deems this an acceptable trajectory of coping for women (Rosario, Shinn, Mørch, & Huckabee, 1988).

This study is the first of its kind to examine transgender distress and transitioning processes through the types of coping mechanisms used. Nonetheless, as with all studies, several limitations can be identified. First, the sample was fairly homogenous regarding racial identification. The experiences and results represented in this study are more likely representative of White transgender populations and may not encompass the transitioning processes and experiences of distress for transgender individuals of color. It would be beneficial to conduct a study regarding distress and well-being for individuals of color to understand the complex dynamics of minority stress for both race and transgender identity.

Furthermore, recruitment and access issues can be considered limitations of this study. It may be considered a limitation to conduct research online, as there are many individuals who do not have access to the Internet or have the knowledge to navigate online survey systems. Also, because this population is marginalized and transgender identities can remain invisible, the sample likely represents individuals comfortable enough with their identities to respond to a survey about identity, instead of individuals at the beginning of their transition process who were not yet ready to answer questions regarding their transition. As with all online research, it is also difficult to verify the identity of participants; we checked all IP addresses to ensure that participants only took the survey once. However, as with most self-report data, it is impossible to verify whether participants are being truthful about their transgender identity. In order to address issues related to comfort with identity, future research should focus on conducting studies of individuals who are in the beginning stages in order to understand more about the process of what it is like for them at the formative stages of their transgender identity.

In addition, genderqueer and crossdressing individuals were excluded from the analyses for this study. Crossdressers' internal gender identity typically matches their sex assigned at birth, but their gender expression is typically indicative of a different gender; genderqueer individuals most often do not identify as male or female, but somewhere in-between, or they reject the notion of gender completely. Because of these identity factors, comparing these participants with transgender men and women does not fit the scientific rationale for the current study. However, genderqueer and crossdressing individuals are often ignored within scientific literature. Research regarding coping mechanisms and mental health outcomes for *all* transgender populations are essential in order to understand the spectrum of gender identities and their multifaceted psychological processes.

There were limitations related to the measurement of social support. The MSPSS scale assesses for the social support of transgender individuals' families of origin, as well as friends and significant others. We were primarily interested in the presence or lack of social support from different types of relationships; however, this does not capture whether or not transgender individuals are gaining social support from families of choice. Future research should assess both family-of-origin support and family-of-choice support.

The results from this study can meaningfully impact the interventions that are used with transgender individuals. First, mental health professionals should be aware that the identity process of the client, regardless of transgender male or female identity, is related to the amount of avoidant coping used and the level of distress they experience. This is particularly important for interventions, given that identity processes are often not at the forefront of many types of interventions. In addition, preventative interventions may be particularly useful in order to help reduce the amount of loss that is experienced by transgender women. Determining areas where clients are worried about loss (e.g., potential loss of employment in the future) may lead to interventions such as writing a letter to a human resources department (see M. L. Brown & Rounsley, 1996). Because social support appears to be an essential component of mental health, it is important that interventions match the clients' entire system, and does not exclusively focus on the individual. Depending on the age and family makeup of the client, family/couple therapy can be particularly useful. For example, family therapy with clients who are younger and are possibly dealing with individuation from their family will look different from family therapy with clients who are older and have a partner and children. Raj (2002) notes that, from a theoretical standpoint, a client-centered approach to working with transgender clients is the most applicable. He states that psychotherapy must provide an affirmative stance related to the clients' identity and that this is essential to promoting a sense of support and, ultimately, better mental health. Affirmative stances include using correct language related to the clients' identity, normalizing transgender identity, and promoting self-empowerment (Raj, 2002). Beyond interventions, it is important to raise awareness that the rates of distress within the sample of the current study are staggeringly high—which indicates that there are factors that are contributing above and beyond what would be experienced within the general population. This does not indicate that transgender

individuals should be more pathologized—instead, it supports the hypothesis that marginalized populations will experience distress at higher rates. This is indicative that societal changes must occur in order to ease distress experienced by transgender populations.

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