Discrimination and Ethnic Identity: Establishing Directionality among Latino/a Youth

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Abstract

Ethnic identity is a consistent predictor of positive youth adjustment, whereas discrimination has been associated with negative outcomes among Latino/a youth. Scholars have proposed associations between ethnic identity and discrimination; however, directionality of effects remains unclear. Addressing this gap, the current study examined the directional relationship between ethnic identity and discrimination and their effects on psychosocial functioning utilizing a random-intercept cross-lagged model spanning 3 waves of data among 1,613 Latino/a adolescents (Mage=13.99, SD=.40 at baseline; 51.2% female). Results support a bidirectional association between ethnic identity and discrimination. Specifically, adolescents who reported higher levels of perceived discrimination reported higher levels of ethnic identity exploration one year later. Further, higher levels of ethnic identity belonging predicted more reported discrimination one year later. No differences in the longitudinal associations between ethnic identity and discrimination were found based on generational status. More experiences of discrimination were also associated with more alcohol and cigarette use and more depressive symptoms. Additionally, ethnic identity belonging was indirectly associated with increased substance use and depressive symptoms via elevated discrimination experiences. Implications for promoting coping strategies for perceived discrimination in efforts to promote ethnic identity are discussed.

Keywords

ethnic identity; perceived discrimination; adolescence; Latino; Adjustment

Identity formation is a critical developmental task faced during adolescence (Kroger, 2007) and serves to establish youth within a set of social roles, thereby facilitating the transition into adulthood and protecting them against aimlessness associated with depression (Crocetti, Rubini, Luyckx, & Meeus, 2008). However, in ethnicity-conscious societies like the United States (U.S.), identity development can be more complex for ethnic/racial minority youth compared with U.S.-born, ethnic majority youth (Azmitia, Syed, & Radmacher, 2008; Syed

& Mitchell, 2013). Indeed, in addition to the development of an general sense of self and identity, ethnic/racial minorities are also tasked with the establishment of an ethnic identity or an understanding of what their ethnic/racial groups mean to them (Meca et al., 2017). The establishment of ethnic identity is positively associated with adaptive psychosocial functioning and negatively associated with maladaptive adjustment (for comprehensive reviews, see Rivas-Drake et al., 2014; Umaña-Taylor, 2011). Given these links, and the fact that ethnic identity is a developmental process (Schwartz, Unger, Zamboanga & Szapocznik, 2010), longitudinal research examining ethnic identity and contextual influences is critical to understanding predictors of ethnic/racial minority youth's adjustment.

A growing body of research has focused on the influence of perceived discrimination on ethnic identity (Gonzales-Backen et al., 2018). On one hand, the *Rejection-Identification Model* (Branscombe, Schmitt, & Harvey, 1999) argues that perceived discrimination drives ethnic identity formation (Branscombe et al., 1999). As youth experience ethnic discrimination, they become more aware of their membership in a marginalized group and this salience drives ethnic identity formation. Conversely, the *Identification-Attribution Model* (Gonzales-Backen et al., 2018) argues that as individuals develop an ethnic identity, they are more aware of stigma against their ethnic group and better able to attribute negative social experiences to ethnic discrimination.

Given that 94% of Latino/a youth report perceived discrimination (Flores, Tschann, Dimas, Pasch, & de Groat, 2010) and ethnic identity has been associated with adaptive outcomes (Rivas-Drake et al., 2014; Umaña-Taylor, 2011), it is important to establish an understanding of the directional relationship between ethnic identity and discrimination. Such an understanding would be imperative for culturally-informed programs to support adolescent well-being. Should ethnic identity lead to greater perceived discrimination, interventions focusing on encouraging ethnic identity must also provide skills to young people for coping with discrimination. On the other hand, should discrimination lead to greater ethnic identity, interventions should focus on processing experiences of discrimination as a mechanism of encouraging ethnic identity and steer youth towards positive outcomes. Extending previous studies, the current study examined the directionality between ethnic identity and perceived discrimination, explored invariance across generation-status, and examined the longitudinal associations of both ethnic identity and perceived discrimination with substance use and depressive symptoms.

Conceptualizing Ethnic Identity

Ethnic identity is a multidimensional psychological construct that reflects individuals' beliefs and attitudes about their ethnic group membership, as well as the process by which these beliefs and attitudes develop over time (Umaña-Taylor et al., 2014). Many studies on ethnic identity have been grounded in Phinney's (1989) developmental perspective. Drawing on Marcia's (1966) operationalization of identity development and social identity theory (Tajfel & Turner, 1986), Phinney's conceptualization of ethnic identity development involves *exploration* (i.e., considering what it means to belong to a particular cultural group) and *belonging* (i.e., a clear and positive understanding of the meaning of ethnicity in one's life; Phinney, 1993). In general, studies have indicated ethnic identity belonging is positively

associated with well-being whereas studies have produced mixed findings regarding the relationship between ethnic identity exploration and mental health outcomes among Latino/a populations (for comprehensive reviews, Rivas-Drake et al., 2014; Umaña-Taylor, 2011).

The Relationship between Ethnic Identity and Discrimination

Two theoretical models have been proposed to conceptualize the relationship between ethnic identity and discrimination: the *rejection-identification model* (Branscombe, Schmitt, & Harvey, 1999) and the *identification-attribution model* (Gonzales-Backen et al., 2018). Below we review both theoretical models.

Rejection-Identification Model

The *rejection-identification model* has its roots in social identity theory (SIT, Tajfel, 1981).According to SIT, individuals strive to achieve a positive social identity by adopting positive attitudes toward the social groups to which they belong, in this case, their ethnic group. As individuals experience discrimination and marginalization, they become aware of their membership in a marginalized group (i.e., ethnic minority group) and this salience of group membership drives ethnic identity formation (Branscombe et al., 1999). As a whole, longitudinal studies have provided mixed support for the rejection-identification model among Latino/a adolescents and young adults. For example, Umaña-Taylor and Guimond (2010) and Cronin, Levin, Branscombe, van Laar, and Tropp (2012) found discrimination was correlated with ethnic identity among adolescent Latino boys and Latino college students. However, although both studies were longitudinal, only cross-sectional correlations were significant. In contrast, Fuller-Rowell, Ong, and Phinney (2013) found that discrimination predicted change in ethnic identity belonging among a sample of Latino college students providing longitudinal support for the rejection-identification model.

Identification-Attribution Model

On the other theoretical end of the spectrum is the *identification-attribution model* (Gonzales-Backen et al., 2018), which has its roots within ethnic identity literature. It has been argued that a more mature ethnic identity involves the development of a more nuanced and abstract understanding of the social implications of belonging to an ethnic minority group (Quintana, 1998). Thus, a more sophisticated ethnic identity may lead adolescents to recognize more instances of discrimination. As individuals develop their ethnic identity, they become more aware of the history, the reality of ethnic-racial stratification, and the stigma against their ethnic group and become more likely to attribute negative social experiences to ethnic discrimination. Indeed, research indicates that reports of experienced discrimination increase with age (for a review, see Umaña-Taylor, 2016). Although several cross-sectional studies have provided support (e.g., Concepcion, Kohatsu, & Yeh, 2013; Hall & Carter, 2006), only one longitudinal study has found evidence in favor of the *identification-attribution* model. Specifically, Sellers and Shelton (2003) found that ethnic-racial centrality predicted later discrimination among Black college students (Sellers & Shelton, 2003). Thus, college students who reported higher salience of ethnicity reported an increase in discrimination over time. However, it is important to note that ethnic identity centrality does not represent the developmental aspects of ethnic identity (i.e., exploration & belonging).

Comparing Models

Although some longitudinal work has provided some support for both the *rejection-identification model* and the *identification-attribution model*, to date, only three studies have concurrently explored both models (Cheon & Yip, 2019; Gonzales-Backen et al., 2018; Zeiders et al., 2017). Using a sample of recently (<5 years) immigrated Latino/a adolescents from Miami and Los Angeles, Gonzales-Backen et al. (2018) found ethnic identity exploration predicted greater discrimination one year later, supporting the *identification-attribution model*. On the other hand, Cheon and Yip (2019) found discrimination positively predicted centrality (i.e., relative importance ones' ethnicity) among Latino/a adolescents, supporting the *rejection-identification model* instead. In contrast to Gonzales-Backen et al. (2018) and Cheon and Yip (2019), Zeiders et al. (2017) found no evidence support of the *rejection-identification model* or the *identification-attribution model* in a sample of Mexican-origin adolescent mothers. However, results from Zeider et al.'s (2017) did indicate that discrimination predicted *lower* ethnic affirmation (i.e., positive feelings about ones' ethnicity) – a finding that directly contradicts the rejection-identification model. Finally, it should be noted, that Gonzales-Backen et al. (2018) and Cheon and Yip (2019) found that, respectively, ethnic identity belonging and private regard (i.e., positive feelings about ones' ethnicity) predicted less discrimination one year later – a finding that neither supports the *rejection-identification model* or the *identification-attribution model*.

Despite the promising findings, these studies have important limitations. To begin with, the study by Gonzales-Backen et al. (2018) focused exclusively on recently immigrated Latino/a youth. As a result, it is unknown whether these findings generalize to more established or even second-generation immigrants. In contrast, Cheon and Yip (2019) study largely consisted of second-generation immigrants (79.25%) and the small sample size prevented the examination of differences across generational status. As noted by Gonzales-Backen et al. (2018), U.S. born adolescents may have early experiences with discrimination that impact their ethnic identity formation, whereas immigrant adolescents may have their first encounters with discrimination in the context of their developing ethnic identity. Indeed, research has extensively documented the effects of nativity on both ethnic identity and discrimination (Douglass & Umaña-Taylor 2016; Geronimus et al. 2006). As such, it is critical for future research to systematically consider the moderating role adolescents' nativity plays in the relationship between ethnic identity and discrimination (Cheon & Yip, 2019).

Additionally, neither of these studies have examined the relative impact of discrimination and ethnic identity processes on youth adjustment. The lack of outcomes in their models limit researchers' capacity to understand the unique effects discrimination and ethnic identity processes have on outcomes and examine potentially important indirect effects, limiting our ability to identify strategic points of intervention (Maxwell & Cole, 2007). Indeed, although ethnic identity processes may positively predict youth adjustment directly, it may indirectly put youth at risk by making them more aware of discriminatory experiences (i.e., identification-attribution model). In summary, for the development of effective interventions, it is necessary to establish an understanding of the relationship between

discrimination and ethnic identity processes and their direct and indirect effects on youth adjustment.

The Current Study

The current study sought to further explore the directional relationship between ethnic identity processes (i.e., exploration and belonging) and discrimination and tested the rejection-identification model and the identification-attribution model in a diverse longitudinal sample of Latino youth. Given the inconsistencies in findings across prior studies, we relied primarily on theory to guide our hypothesis. As such, and consistent with both the rejection-identification and the identification-attribution models, we proposed a bidirectional relationship between ethnic identity processes (i.e., exploration and belonging) and discrimination. In addition, consistent with recommendations by both Gonzales-Backen et al. (2018) and Cheon and Yip (2019), the broader literature emphasizing differences in ethnic identity and discrimination across nativity, we sought to explore generational differences in the directional relationship between ethnic identity and discrimination.

Lastly, and building on these previous studies, we sought to examine the direct and indirect effects of ethnic identity processes (i.e., exploration and belonging) and discrimination on youth adjustment. Specifically, we sought to examine whether ethnic identity processes predict substance use and depressive symptoms through discrimination (i.e., Ethnic Identity Processes -> Discrimination -> Substance Use and Depressive Symptoms) or if discrimination predicts youth adjustment through ethnic identity processes (i.e., Discrimination -> Ethnic Identity Processes -> Substance Use and Depressive Symptoms). Our focus on substance use and depressive symptoms is driven by the extensive literature surrounding the relationship between ethnic identity and discrimination with these two outcomes (Benner et al., 2018; Rivas-Drake et al., 2014). Should evidence support the rejection-identification model, discrimination would lead to greater ethnic identity development, which would in turn would lead to better adjustment. In contrast, if findings are consistent with the identification-attribution model, then ethnic identity processes may lead to greater discrimination, in turn compromising adolescent adjustment.

Methods

Participants

The current study used data collected from Project RED (Reteniendo y Entendiendo Diversidad para Salud - Retaining and Understanding Diversity for Health; Unger, 2014), a longitudinal study of acculturation patterns and substance use among Latinos adolescents in Southern California. The sample consisted of 1,616 Latino youth (51.2% female, $M_{age}=$ 13.99 years, $SD = .40$, Range = 12 to 16). Approximately 13.4% (n = 218) of respondents were first-generation immigrants (i.e., born outside of the United States), 64.1% (n = 1043) were second-generation immigrants (i.e., born in the United States but both of their parents were born abroad), 9.9% (n = 161) were 2.5 immigrants (i.e., born in the United States but only one of their parents were born abroad), and 12.5% (n = 204) were third or later generation (i.e., participant and both parents were born in the United States).

Procedure

Data from Project RED (Unger, 2014) was collected from seven predominantly Latino/a high schools in the Los Angeles area. Surveys were completed in 9th, 10th, and 11th grades in 2005, 2006, and 2007, respectively. Inclusion of human subjects and study analyses were approved by the Institutional Review Board at University of Southern California (HS-09-00400; Family dynamics, identity formation, and drug use among Hispanic emerging adults). In 2005, all 9th-grade students in the 7 schools ($N = 3,218$) were invited to participate. Of those, 2,420 (75%) provided parental consent and student assent. Of those students providing consent and assent, 1,583 (65%) completed the baseline survey in the 9th grade and self-identified as Latino. We were able to retain 1,259 (79%) of the sample throughout 9th, 10th, and 11th grades. Participants with missing data did not differ from individuals with complete data in terms of gender [$\chi^2(1) = .720$, $p = .396$, Cramér's $V = .021$] and nativity [$\chi^2(2) = 5.619$, $p = .060$, Cramér's $V = .059$], The cases with complete data reported lower discrimination ($M = 1.690$, $SD = .547$) than those with missing data ($M = 1.791$, $SD = .625$), $F(1, 1507) = 3.384$, p = .001. Additionally, those with complete data reported higher ethnic identity exploration ($M = 2.482$, $SD = .551$) than those with missing data ($M = 2.398$, $SD = .602$), $F(1, 1507) = 2.352$, p = .007. Similarly, those with complete data also reported higher ethnic identity affirmation ($M = 3.079$, $SD = .571$) than those with missing data ($M = 2.945$, $SD = .656$), $F(1, 1507) = 5.958$, p < .001. However, the effect sizes for the differences ranged from .005 to .011, failing to meet the threshold for even a small effect, indicating these sample differences were negligible and did not account for much of the variance in the variables. Additionally, several ANOVAs were conducted to assess whether the observed variable means differed on the basis of the missing data pattern of any variable. As to be expected when data are missing at random (Enders, 2010), several significant mean differences emerged. However, effect sizes ranging from .004 to .005 suggested that those differences would not influence the estimation of model parameters in a substantive way. In the main analyses, we utilized Full-Information Maximum Likelihood Estimation (FIML; Collins, Schafer, & Kam, 2001) in Mplus v7.2 (Muthén & Muthén, 1998-2012) to handle the cases with partially missing data and accommodate missing-at-random data. Additionally, to improve the accuracy of the FIML estimates, we included completion as a covariate (0 = Completer versus non-completer) within the RI-CLPM.

Measures

Ethnic identity.

The Multigroup Ethnic Identity Measure (MEIM; Roberts et al., 1999) was used to measure ethnic identity exploration and belonging. Participants responded to items on a 4-pont Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*). The exploration subscale includes 5 items (e.g., "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs."). The belonging subscale includes 7 items (e.g., "I have a clear sense of my ethnic background and what it means for me."). Baseline alpha coefficients in the current study were .85 (exploration) and .92 (belonging).

Perceived Ethnic discrimination.

Discrimination was computed using a 10-item scale (Guyll, Matthews, & Bromberger, 2001) stating that some people feel they are treated differently because of their ethnic or cultural background, asking respondents to specify how often they perceive such treatment ("You are treated with less respect than other people"). Participants responded to items on a 4-pont Likert scale from 1 (*Never*) to 4 (*Often*). Baseline alpha coefficient in the current study was .86.

Substance use.

Substance use was assessed using a modified version of the Monitoring the Future survey (Johnston, O'Malley, & & Bachman, 2014). Adolescents were asked about frequency of alcohol use and cigarette smoking in the 90 days prior to each assessment point. The scale ranged from 0 (Never) to 4 (Always).

Depressive symptoms.

The 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) assessed adolescents' depressive symptoms (sample item: "I felt sad this week"). Items are rated on a 4-point scale ranging from 1 (seldom) to 4 (most of the time) and ask participants how often they experienced various depressive symptoms during the week prior to assessment. The CES-D has been used frequently with Hispanic individuals (e.g., Todorova, Falcón, Lincoln, & Price, 2010). Baseline alpha coefficient in the current study was .88.

Analytic Strategy

Analyses were conducted in Mplus v7.2 (Muthén & Muthén, 1998-2012). Model fit was evaluated using the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). According to values suggested by Little (2013), good fit is represented as CFI .950 and RMSEA .060. Although we report the χ^2 value, we did not use it to gauge model fit because it tests a null hypothesis of perfect fit, which is rarely plausible with large samples or complex models (Davey & Savla, 2010). The analytic process proceeded in six steps.

First, we established longitudinal invariance for the Multigroup Ethnic Identity Measure (MEIM) and the Perceived Discrimination Scale (PDS) (Brown, 2006). We did so because longitudinal analysis assume that the same construct is assessed over time (Little, 2013). It is also important to ensure that longitudinal change in a latent construct is a result of true change (rather than the latent construct measuring something different at each time point) (Brown, 2006; Little, 2013). As such, we evaluated configural (equal form), metric (equal factor loadings), and scalar (equal item intercepts) invariance prior to longitudinal analysis. To do this, we began with the least restrictive model for the Multigroup Ethnic Identity Measure (MEIM) and the Perceived Discrimination Scale, the configural model. Building on this model, we examined metric invariance model by constraining factor loadings to equality across time, and then scalar invariance by constraining intercepts and factor loadings to equality across time. We compared the configural, metric, and scalar invariance models using the CFI (CFI < .010) and RMSEA (RMSEA < .010; Little, 2013). The assumption of longitudinal metric and scalar invariance would be satisfied if the CFI < .01 and

RMSEA < .01[1]. Second, we calculated descriptive statistics and a correlation matrix for all study variables.

Third, we fit a Random Intercept Cross-Lagged Panel Model (RI-CLPM; Hamaker et al., 2015). A RI-CLPM is similar to a traditional CLPM, except it allows for the disentanglement of within-person versus between-person processes, whereas the CLPM does not provide this nuanced level of analyses (see Hamakger et al., 2015, for more details). This is important given that many psychological constructs can be characterized by stable individual differences. Moreover, by examining both within- and between-person relations, it is possible to avoid the ecological fallacy associated with traditional CLPM methods (i.e., drawing within-person conclusions using between-person analyses, or vice versa; see Curran & Bauer, 2011). Within a RI-CLPM model, within-person effects provide information on how change in a particular adolescents' ethnic identity relates to subsequent change in their own experiences of discrimination, and/or vice versa. In contrast, between-person correlations provide information on trait-like difference. For example, a between-person correlation between ethnic identity belonging and discrimination would indicate that individuals with higher ethnic identity belonging tend to also experience higher discrimination.

Fourth, to establish temporal invariance or non-varying cross-lagged paths across time (Allison, 1990), we imposed equality constraints on corresponding cross-lagged relationships in the final model. In doing so, temporal invariance produces one set of lagged path estimates corresponding to Time *t* and Time *t+1.* To evaluate the tenability of these stationarity constraints, we compared the fit of models with and without these constraints using the ΔCFI (>.010) and ΔRMSEA (>.010) criteria to determine whether the stationarity assumption should be statistically rejected. Fifth, we compared whether the findings differed across youth generation status (i.e., first-generation, second-generation, and third-generation). To do this, we first ran an unconstrained multigroup model, with estimates free to vary across generation status (i.e., first-generation, second-generation, and third-generation), and compared it to a fully constrained model, with all paths constrained to be equal across generation status. At each point, compared the fit of models using the ΔCFI (>.010) and ΔRMSEA (>.010) criteria (Little, 2013).

Sixth, to understand the direct and indirect effects of within-person ethnic identity processes (i.e., exploration and belonging) and discrimination on between-person substance use and depressive symptoms, we included both outcomes at T3, controlling for baseline levels in addition to gender, age, nativity, and completion (0 = Completer versus non-completer). Indirect effects where calculated using the RMediation package (Tofighi & MacKinnon, 2011) and within a single model to avoid Type I error inflation. Doing so provides more statistical power, and greater rigor, compared to the original Baron and Kenny (1986) approach to testing mediation (Fritz & MacKinnon, 2007). The RMediation package uses the asymmetric distribution of products test, which computes a 95% confidence interval around the product of the two path coefficients that comprise each potential mediating

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[1]Although we report the χ^2 test, because it tests the null hypothesis that two paths or models are exactly equivalent (Meade, Johnson, & Braddy, 2008), we did not rely on the χ^2 difference test in our interpretations.

pathway. If this confidence interval does not include zero, then mediation is assumed at p<.05 (MacKinnon, 2008).

Results

Establishing Longitudinal Invariance

As seen in Table 1, the configural invariance model for the Multigroup Ethnic Identity Measure was associated with good fit [χ^2 (543) = 2132.620, p < .001; CFI = .920; RMSEA = .042]. We then examined metric invariance by constraining factor loadings to equality across time and comparing this model with the configural invariance model. The assumption of metric variance was satisfied [χ^2 (24) = 37.676, p = .037; CFI < .001; RMSEA < .001]. Next, we examined scalar invariance by constraining intercepts and factor loadings to equality across time and comparing this model against the metric invariance model. The assumption of scalar invariance was supported [χ^2 (24) =135.679, p < .001; CFI = .006; RMSEA < .001].

Next, we sought to examine longitudinal invariance for the Perceived Discrimination Scale. The configural invariance model was associated with good fit [χ^2 (369) = 1462.181, p < .001; CFI = .924; RMSEA = .043]. Although the assumption of metric variance was satisfied [χ^2 (20) = 86.967, p < .001; CFI = .005; RMSEA < .001], the assumption of scalar invariance was not supported [χ^2 (20) =227.859 p < .001; CFI = .014; RMSEA = .002]. Moving forward, analysis sought to identify indicators that violated the assumption of scalar invariance. Results indicated that none of the individual item intercepts were considered nonequivalent providing evidence for partial scalar invariance. In sum, results provided evidence for longitudinal invariance for both the Multigroup Ethnic Identity Measure and the Perceived Discrimination Scale indicating any observed longitudinal change is a result of true change rather than the latent construct measuring something different at each time point (Little, 2013).

Establishing Directional Effects

Bivariate associations and descriptive statistics are presented in Table 2. The RI-CLPM model provided good fit to the data [χ^2(15) = 101.566, p<.007; CFI = .972; RMSEA = .061]. Next, we sought to examine temporal invariance in the cross-lagged relationships between ethnic identity exploration, ethnic identity belonging, and discrimination. Invariance tests suggested that the temporal invariance assumption could be retained [χ^2(6) = 10.805, p= .094; CFI=,001; RMSEA<001], indicating that the relationship between ethnic identity exploration, ethnic identity belonging, and discrimination are consistent overtime. Put another way, given the temporal invariance, the findings can be simplified to comparing the cross-lagged path coefficients between Times t and t+1.

As shown in Table 3, results indicated ethnic identity belonging at Time t positively predicted discrimination at Time t+1 (β = .094, p=.044, 95% CI = .002 to .187), providing support for the identification-attribution model. At the same time, and consistent with the rejection-identification model, results also indicated that discrimination at Time t positively predicted ethnic identity exploration at Time t+1 (β = .078, p=.049, 95% CI = .001 to .157).

Finally, results also indicated a unidirectional relationship between ethnic identity exploration and belonging, such that ethnic identity belonging at Time *t* positively predicted exploration (β = .160, *p* = .002, 95% CI = .060 to .259) at Time *t*+1.

Over and above these directional within-person effects, results also indicated a large between-person correlation between ethnic identity exploration and ethnic identity belonging (*r* = .638, *p*<.001, 95% CI = .520 to .756). Put another way, the between-person findings suggest that Latino youth with higher ethnic identity exploration tend to have higher ethnic identity belonging across time, and vice versa.

Establishing Invariance across Generation Status

Next, we examined whether these findings differed between first-, second-, and third-generation immigrants. The fully unconstrained model provided good-to-acceptable fit to the data [$\chi^2(36) = 120.179$, *p*<.001; CFI = .970; RMSEA = .071]. Building on this model, we constrained cross-lagged paths to be equal across generation status. Results indicated no significant change in model fit [$\chi^2(30) = 31.320$, *p* = .400;   CFI < .001;   RMSEA < .001]. As such, we concluded that findings were consistent across generation status.

Direct and Indirect Effects on Depressive Symptoms and Substance Use

As shown in Table 4, discrimination at Time 3 positively associated alcohol use (*OR* = 1.111, *p* = .024, 95% CI = 1.014 to 1.220), cigarette use (*OR* = 1.083, *p* = .046, 95% CI = 1.002 to 1.171), depressive symptoms (β = .256, *p*<.001, 95% CI = .178 to .335) at Time 3. There were no significant direct associations between ethnic identity processes and substance use or depressive symptoms. Next, we sought to establish indirect effects of ethnic identity processes and discrimination on both substance use and depressive symptoms. As indicated in Table 5, ethnic identity belonging, through discrimination, indirectly and positively predicted alcohol use (*OR* = 1.015, 95% CI = 1.001 to 1.037), cigarette use (*OR* = 1.012, 95% CI = 1.001 to 1.028), and depressive symptoms (β = .037, 95% CI = .012 to .067).

Discussion

Extensive research has highlighted the importance of ethnic identity (Rivas-Drake et al., 2014; Umaña-Taylor, 2011) and discrimination (Cano et al., 2015) in psychological adjustment among Latino/a youth. Although there is research indicating the effects of ethnic identity and discrimination on Latino/a youth adaptation, the directionality of effects between these two constructs is unclear. The literature has posited two theoretical models governing the directional relationship between these two cultural processes: the identification-attribution model (Gonzales-Backen et al., 2018) and the rejection-identification model (Branscombe et al., 1999). Despite the competing theories, only three previous studies have explored the directional relationship between these two processes in across very different samples, resulting in conflicting support (Cheon & Yip 2019; Gonzales-Backen et al., 2018; Zeiders et al., 2017). Extending previous findings, the current study explored the directional relationship between these two processes among a more heterogeneous sample of Latino immigrants and establish direct and indirect effects of

ethnic identity and discrimination on psychosocial functioning. Although the current study found evidence for a bidirectional relationship between discrimination and ethnic identity, consistent with the rejection-identification and the identification-attribution models, results also indicated that ethnic identity belonging places youth at risk for substance abuse and depressive symptoms vis-à-vis its effects on discrimination.

Directionality in the Relationship Between Ethnic Identity and Discrimination

To begin with, results from the current study provided support for the identification-attribution model. Scholars have argued that an increased identification with one's heritage culture may make youth more likely to recognize negative social interactions as ethnic discrimination. Consistent with previous cross-sectional research (Concepcion, Kohatsu, & Yeh, 2013; Hall & Carter, 2006; Sellers & Shelton, 2003), the current study provided further evidence for the concept that ethnic identity may lead group members to interpret negative interactions in intergroup terms, resulting in a greater likelihood of perceiving discrimination against their in-group. Specifically, findings indicated greater levels of ethnic identity belonging led to greater perceptions of discrimination. In sum, as youth develop a sense of belonging, they are likely to become more attuned to the ethnic salience of social interactions (Sellers & Shelton, 2003) and the negative portrayals of Latino youth in the media, that have often depicted Latino youth as economic and social burdens on society (Chavez, 2013), in turn increasing the likelihood for discrimination. At the same time, it is worth noting that youth who feel a strong sense of belonging to their ethnic heritage may also be more inclined to engage in cultural practices that differentiate them from mainstream culture, potentially making them targets for ethnic discrimination.

It should be noted that these findings do contradict those by Gonzales-Backen et al. (2018) & Cheon and Yip (2019) which found, respectively, that belonging and private regard negatively predicted discrimination. The discrepancies in these finding may be due to combination of Latino population and context. Whereas both Gonzales-Backen et al. (2018) and our study collected data from youth in predominately Latino communities, and although the study established generational invariance, our sample of first-generation participants was nonetheless more acculturated than that of Gonzales-Backen et al.'s (2018) recent immigrant sample. Indeed, 72% (n = 156) of first-generation Latinos in the current sample have lived in the United States since they were young children (six or younger at time of migration). Unfortunately, due to sample size limitations, it was not feasible to examine whether there were significant differences between recent immigrants and those who were more established. At the same time, although Cheon and Yip (2019) and our study was conducted with more acculturated youth, Cheon and Yip (2019) collected data from schools with greater ethnic/racial diversity. Future research should not only utilize multi-site data collect techniques to better capture diversity across context of reception, but should also ensure sufficient sample size across the spectrum of nativity and years in the US.

On the other hand, the rejection-identification model has argued that as individuals experience discrimination, they become aware of their membership in a marginalized group (i.e., ethnic minority group) and this salience of group membership drives ethnic identity formation (Branscombe et al., 1999). Consistent with previous cross-sectional research

(Fuller-Rowell, Ong, & Phinney, 2013; Cronin, Levin, Branscombe, van Laar, & Tropp, 2011; Umaña-Taylor & Guimond, 2010), the current study supported the rejection-identification model. Specifically, the current study found that discrimination predicted greater ethnic identity exploration. These findings are similar to those of Cheon and Yip (2019) which found that discrimination positively predicted greater ethnic identity centrality within their sample of largely (79%) second-generation Latinx but contrast those of Gonzales-Backen et al. (2018). Given that even our first-generation participants have largely grown in majority-Latino neighborhoods and schools for the majority of their lives, their status as marginalized minorities might not have been central to them until they experienced discrimination. In contrast, recently immigrated Latino youth, who have a conscious memory of immigrating to the US, are tasked with navigating an entirely new cultural context where they are very obviously "other" in terms of ethnicity and culture. For these youth, ethnic identity is likely salient from the moment of migration, and thus, discrimination is unlikely to further increase the salience of their group membership, the process hypothesized to drive ethnic identity formation (Branscombe et al., 1999).

Finally, in contrast to the rejection-identification model and Zeiders et al. (2017), discrimination did not predict greater ethnic identity belonging. In Zeiders et al. (2017) recent study, discrimination resulted in lower ethnic resolution and affirmation. Zeiders et al. (2017) argued that the direction of the findings indicated that as youth are confronted with negative messages about themselves, their positive sense of self suffers, and they are forced to reconsider the meaning of their own ethnic identity. In contrast to Zeiders et al. (2017), our findings indicated no significant relationship between ethnic discrimination and greater ethnic identification. The contrasting findings may be due to a number of reasons. To begin with, as noted by Zeiders et al. (2017), adolescent mothers' experiences may not generalize to other youths' developmental experiences. Indeed, studies have found that ethnic-racial aspects of identity become salient during the transition to parenthood (Hughes et al., 2006). Additionally, it should be noted that the use of the Multigroup Ethnic Identity Measure (MEIM; Roberts et al., 1999) limits our capacities to draw parallels between our findings and those of Zeiders et al. (2017) that used the Ethnic Identity Scale (EIS; Umaña-Taylor, Yazedjian, & Bámaca-Gómez, 2004). Specifically, the MEIM combines ethnic resolution (i.e., clarity regarding the role ones' ethnic identity plays in ones' lives) and ethnic affirmation (i.e., positive feelings towards ones' ethnic group membership) to form ethnic "belonging", whereas the EIS unpacks these components of ethnic identity such that they can be examined independently. Future studies should use measures better able at capturing the differences between these three ethnic identity processes (i.e., exploration, affirmation, and commitment).

The Effects of Ethnic Identity Processes and Discrimination on Psychosocial Functioning

In addition to establishing the directional relationship between ethnic identity processes and discrimination, the current study also sought to examine direct and indirect effect of these cultural processes on psychosocial functioning. Consistent with the broader literature (Araújo & Borrell, 2006; Delgado, Updegraff, Roosa, & Umana-Taylor, 2011; Lorenzo-Blanco, Unger, Baezconde-Garbanati, Ritt-Olson, & Soto, 2012; Okamoto, Ritt-Olson, Soto,

Baezconde-Garbanati, & Unger, 2009; Smokowski & Bacallao, 2006), our findings highlighted the negative impact of discrimination on youth functioning.

Counter to much of the literature on ethnic identity and its association with psychosocial outcomes (Miller-Cotto & Byrnes, 2016; Rivas-Drake et al., 2014), ethnic identity belonging increased maladaptive adjustment via increased discrimination. Specifically, ethnic identity belonging was found to indirectly and positively predict substance use and depressive symptoms through discrimination. It may be the case that ethnic identity formation and discrimination experiences must be further unpacked to understand the implications for psychosocial adjustment among Latino/a youth. Ethnic identity formation is embedded within contexts, including experiences of discrimination. As such, if discrimination is experienced during a sensitive period of ethnic identity formation, youth may be at elevated risk for maladjustment. As a whole, the current findings indicate that ethnic identity belonging may place youth at risk to experience or recognize greater discrimination which results in poor functioning. The current findings highlight the need for interventions to focus on providing Latino/a youth with skills necessary for coping with discrimination as they develop their ethnic identities.

Limitations and Future Directions

The present results should be interpreted in light of several limitations. The limitation to one particular context of reception, Los Angeles, limits the generalizability of the findings to other contexts of reception, where the opportunity structure, degree of openness versus hostility, and acceptance in the local community may differ. Indeed, Latinos are the largest ethnic group in Los Angeles (48.5%; U.S. Census, 2011) and primarily of Mexican origin (U.S. Census, 2011). Thus, whether these findings generalize to other contexts of reception, including rural receiving communities, or other sub-ethnic groups is a question for future research. As such, multi-site research is necessary to explore the directional relationship between ethnic identity and discrimination across the transition from adolescence to young adulthood across a wide variety of Latino sub-groups and contexts of reception. Moreover, although it was possible to examine whether there were generational differences within the directional associations between discrimination and ethnic identity, sample size limitations made it difficult to examine differences within first-generation immigrants who vary in terms of age of migration and years in US.

Additionally, our exclusive focus on exploration and belonging and our utilization of the MIEM represents another important limitation. Future research should not only utilize the EIS to unpack the differential effects resolution and ethnic affirmation, but consistent with Cheon and Yip (2019) draw on the identity content literature and include indicators of centrality and public regard. Moreover, research on cultural adaption has increasingly emphasized the importance of incorporating a bicultural model of cultural identity development, arguing the importance for exploring both ethnic identification and US identification (Schwartz et al., 2012). Indeed, scholars have argued that the development of an integrated sense of self and identity incorporates elements from one's ethnic group and the US (Berry, 1997). The focus solely on ethnic identity may mask the effect that US cultural adoption may have on perceptions of ethnic discrimination. Youth who are more

oriented towards US culture may spend more time interacting with the receiving culture, in turn experiencing greater exposure to discriminatory experiences (Umaña-Taylor & Updegraff, 2007) while concurrently, losing the protection of their community (Viruell-Fuentes, 2007). Moreover, although evidence indicated greater discrimination led to greater ethnic identity exploration it may also result in lower US identification, in turn encouraging youth to become more entrenched in their cultural moors (Meca, Reinke, & Schier, 2017). Given the significant research emphasizing the protective effects of biculturalism in adolescence and emerging adulthood (Chen, Benet-Martinez, & Bond, 2008; Chen, Benet-Martinez, Wu, Lam, & Bond, 2013; Schwartz, Unger, Baezconde-Garbanati, et al., 2015), future research incorporating a bicultural perspective is necessary.

Conclusion

Despite these limitations, the current study provides further insight into the complex relationship between ethnic identity and discrimination. Given that ethnic identity formation is a central developmental task among Latino adolescents (Branch, 2001) and positively associated with adaptive and negatively associated with maladaptive psychosocial functioning (for comprehensive reviews, see Rivas-Drake et al., 2014; Umaña-Taylor, 2011), ethnic identity should be encouraged. These findings demonstrate the contextual nature of ethnic identity formation such that ethnic identity and discrimination experiences may be inextricably linked. Put differently, given the stratification of ethnicity and race in the United States, we cannot understand ethnic identity formation outside of the context of discrimination and cannot ignore the implications for the developing ethnic identity for discrimination experiences. Given the links between ethnic identity exploration and discrimination, this study highlights the need for programs and interventions to support Latino youth with skills necessary for coping with discrimination as they develop their ethnic identities.

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Table 1

Model Fit and Comparison for Longitudinal Invariance Models

Model	χ^2 (df)	χ^2 (df)	CFI	CFI	RMSEA	RMSEA
MEIM						
Configural Model	2132.620 (543)*		.920		.042	
Metric Model	2170.296 (567)*	37.676 (24)*	.920	<.001	.042	<.001
Scalar Model	2305.975 (591)*	135.679 (24)*	.914	−.006	.042	<.001
PDS						
Configural Model	1462.181 (369)*		.924		.043	
Metric Model	1549.148 (389)*	86.967 (20)*	.919	−.005	.043	<.001
Scalar Model	1777.007 (409)*	227.859 (20)*	.905	−.014	.045	−.002

Table 2

Bivariate Zero-Order Correlations

	Mean (SD)	2	3	4	5	6	7	8	9
1. Belonging (T1)	3.050 (.597)	.386 *	.351 *	.599 *	.260 *	.255 *	−.100 *	.063 *	.084 *
2. Belonging (T2)	3.128 (.573)	1	.559 *	.243 *	.598 *	.418 *	−.042	.053	.123 *
3. Belonging (T3)	3.183 (.611)		1	.234 *	.362 *	.621 *	−.069 *	.030	.087 *
4. Exploration (T1)	2.461 (.572)			1	.336 *	.329 *	.014	.118 *	.093 *
5. Exploration (T2)	2.504 (.569)				1	.514 *	.040	.149 *	.137 *
6. Exploration (T3)	2.552 (.610)					1	.017	.134 *	.182 *
7. Discrimination (T1)	1.716 (.568)						1	.387 *	.348 *
8. Discrimination (T2)	1.553 (.559)							1	.492 *
9. Discrimination (T3)	1.558 (.582)								1

Note.

*
$p < .050$

Table 3

Cross-Lagged Paths for Temporal Invariance Model

Outcome (t+1)	Predictor (t)	Estimate[1]	*p*-value	95% CI
Ethnic Identity Belonging	Ethnic Identity Exploration	.027	.594	−.072 to .126
	Discrimination	.032	.474	−.056 to .121
Ethnic Identity Exploration	Ethnic Identity Belonging	.160	.002	.006 to .259
	Discrimination	.078	.049	.001 to .157
Discrimination	Ethnic Identity Exploration	.056	.190	−.028 to .141
	Ethnic Identity Belonging	.094	.044	.002 to .187

Notes. All estimates are standardized regression coefficient

Table 4

Effects of Ethnic Identity Processes and Discrimination on Psychosocial Functioning

Outcome	Predictor	Estimate	*p*-value	95% C.I.
Alcohol Use	Ethnic Identity Belonging	0.990	.870	0.883 to 1.110
	Ethnic Identity Exploration	0.921	.136	0.828 to 1.026
	Discrimination	1.111	.024	1.014 to 1.220
Cigarette Use	Ethnic Identity Belonging	0.996	.223	0.890 to 1.027
	Ethnic Identity Exploration	0.981	.620	0.909 to 1.059
	Discrimination	1.083	.046	1.002 to 1.171
Depressive	Ethnic Identity Belonging	0.006	.881	−0.074 to 0.086
Symptoms	Ethnic Identity Exploration	−0.010	.804	−0.086 to 0.067
	Discrimination	0.256	<.001	0.178 o 0.335

Table 5

Indirect Effects of Ethnic Identity Processes and Discrimination

Predictor	Mediator	Outcome	Estimate	95% CI
Ethnic Identity	Ethnic Identity	Alcohol Use	1.012	0.966 to 1.004
Belonging	Exploration	Cigarette Use	0.997	0.983 to 1.009
		Depressive Symptoms	−0.002	−0.015 to 0.011
	Discrimination	Alcohol Use	1.015	1.001 to 1.037
		Cigarette Use	1.012	1.001 to 1.028
		Depressive Symptoms	0.037	0.012 to 0.067
Ethnic Identity	Ethnic Identity	Alcohol Use	1.001	0.994 to 1.005
Exploration	Belonging	Cigarette Use	0.999	0.992 to 1.005
		Depressive Symptoms	0.001	−0.005 to 0.005
	Discrimination	Alcohol Use	1.006	0.997 to 1.020
		Cigarette Use	1.005	0.998 to 1.016
		Depressive Symptoms	0.012	−0.007 to 0.040
Discrimination	Ethnic Identity	Alcohol Use	0.999	0.991 to 1.007
	Belonging	Cigarette Use	0.997	0.988 to 1.003
		Depressive Symptoms	0.001	−0.006 to 0.008
	Ethnic Identity	Alcohol Use	0.992	0.975 to 1.003
	Exploration	Cigarette Use	0.998	0.988 to 1.007
		Depressive Symptoms	−0.001	−0.011 to 0.008