


## Shift and Persist in Mexican American Youth: A Longitudinal Test of Depressive Symptoms

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This paper tested whether shift-&-persist coping, or coping involving the combination of cognitive reappraisal, acceptance, and optimism (Chen & Miller, *Perspectives on Psychological Science*, 2012, 7, 135), attenuates the risks presented by economic hardship and ethnic discrimination for change in depressive symptoms from 9th to 12th grade, in a sample of 674 Mexican American youth (Mage W1 = 10.86; 50% female; 72% US born) and whether this effect depends on ethnic pride. Structural equation modeling indicated that, when accounting for economic hardship, shift-&-persist was associated with fewer concurrent depression symptoms. Youth with lower ethnic pride who endorsed high levels of shift-&-persist were protected against the negative impacts of peer ethnic discrimination on depressive symptoms. Future research on ethnic discrimination should examine patterns of coping and identity that can mitigate risk.

Key words: Latinx – peer discrimination – internalizing – shift-&-persist – identity

Although Latinx<sup>1</sup> youth made up 25% of the under 18 population in the United States in 2018 (Federal Interagency Forum on Child & Family Statistics, 2019), there continues to be a paucity of research examining protective processes for this growing population. Latinx youth and Mexican American youth, more specifically, face a wide range of uncontrollable stressors relative to non-Latinx Whites, including a greater likelihood (62%) of living in poverty (Population Reference Bureau, 2016)

and exposure to ethnic discrimination (Jones, Cox, Fisch-Friedman, & Vandermaas-Peeler, 2018). These stressors among others have resulted in significant mental health disparities for Latinx youth (e.g., Alegría et al., 2015). Yet, many Mexican American youth thrive socially, academically, and psychologically (e.g., Berkel et al., 2010), and thus, more research is needed to identify the specific coping processes that mitigate the development of negative outcomes in the context of adversity. Models of resilience in minoritized youth have posited that ethnic-racial identity processes coalesce with coping to disrupt the harmful impact of discrimination (Garcia Coll et al., 2016; Neblett, Rivas-Drake, & Umaña-Taylor, 2012; Spencer, 2006), but few studies have explicitly tested how these processes work in tandem, especially longitudinally. Our study tested how coping and ethnic identity may buffer the impacts of economic hardship and ethnic discrimination on depressive symptoms across high school in a longitudinal sample of Mexican American youth. In terms of coping, we build on existing work that has pointed to shift-&-persist coping (cognitive reappraisal of uncontrollable stressors combined with optimism and purpose in life; Chen & Miller, 2012) as a promising set of coping factors that protect against negative health outcomes in

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<sup>1</sup>We use the term Latinx for its inclusivity of all members of the Latinx community (i.e., members of the LGBTQ+ community; Salinas & Lozano, 2017) and because gender inclusive identities were not specifically assessed. We acknowledge that all Latinx/a/o may use different terms (including other terms like Chicano/a/x, Hispanic) to label their ethnic-racial group membership, but we use this term to bring attention to gender diversity within the community.

the context of socioeconomic stress (Chen, Lee, Cavey, & Ho, 2013; Chen, McLean, & Miller, 2015; Chen et al., 2011). The purpose of the current study was to test whether shift-&-persist coping moderates potential associations between economic hardship and peer ethnic discrimination on depressive symptoms over the course of high school in Mexican-origin youth. Further, we tested whether this moderation varied by levels of ethnic pride (an important facet of ethnic identity).

### Depressive Symptoms in Latinx Youth

Latinx youth tend to report greater depressive symptoms relative to other ethnic-racial groups in the United States (Twenge & Nolen-Hoeksema, 2002). A burgeoning literature points to economic hardship and exposure to greater ethnic discrimination as predicting worse depressive symptomatology cross-sectionally and longitudinally in Mexican American samples (Berkel et al., 2010; Prelow, Loukas, & Jordan-Green, 2007; Stein, Gonzalez, & Huq, 2012). Although depressive symptoms tend to decrease across time for Latinx youth, peer ethnic-racial discrimination predicts elevated levels relative to the average trajectory suggesting that it is important to identify factors that foster resilience over time (e.g., Delgado, Nair, Updegraff, & Umaña-Taylor, 2019; Sirin et al., 2015). The intersection of cultural and coping processes may indeed contribute to this longitudinal resilience. For example, distraction coping processes coupled with low Anglo orientation mitigated the effects of discrimination on internalizing symptoms in Mexican-origin youth (Brittian, Toomey, Gonzales, & Dumka, 2013). However, the vast majority of work asking these questions focuses either solely on identity-based processes (e.g., Umaña-Taylor, Tynes, Toomey, Williams, & Mitchell, 2015; Umaña-Taylor & Updegraff, 2007) or coping processes (Basáñez, Warren, Crano, & Unger, 2014; McDermott, Umaña-Taylor, & Zeiders, 2019). Additionally, for Latinx youth, the risks presented by economic stressors and ethnic-racial discrimination for depressive symptoms depends differentially on cognitive and coping processes (Christophe et al., 2019; Stein et al., 2012). Given these findings, it is imperative to identify factors that reduce the cascading impact of adversity and depressive symptoms across adolescence with special attention to the intersection of coping and identity processes. In particular, it is important to differentiate whether unique combinations of psychological resources are necessary depending on the type of stressor. First,

we turn to coping processes that may be better fit to uncontrollable stressors like ethnic-racial discrimination and economic stress, and then we consider how ethnic identity may be an important factor to consider when experiencing the stress of peer ethnic discrimination (a racialized stressor).

### Shift-&-Persist

In the health psychology literature, Chen and Miller (2012) proposed shift-&-persist as a set of coping characteristics that leads to positive adaptation in youth exposed to uncontrollable stressors. The model, based on extensive research on coping and resilience, was developed specifically to consider the unique combination of coping resources necessary to counter the negative health ramifications of poverty and economic stress (Chen, 2012). Drawing from the coping literature, Chen and Miller (2012) argued that not all coping resources may be effective to mitigate the body's stress response in the face of uncontrollable stress, and fitting coping characteristics to the controllability of stressors is necessary to uncovering their long-term protective effects. For controllable stressors (e.g., doing poorly in a class), forms of coping that primarily focus on changing the stressor (e.g., problem-solving) would be the best fit as youth could have an impact on their stressor thereby improving their environment and subsequently lessening their stress response. Yet, for uncontrollable stressors, Chen & Miller posited that directly engaging with the stressor would be ineffective, and instead youth need to *shift*, or divert attention away from an uncontrollable stressor, and at the same time *persist*, or maintain a sense of optimism, an orientation toward the future, and connect to meaning in life. Youth who employ both of these strategies together would have a bolstered stress response leading to less physiological reactivity to stressors and ultimately to improved psychological and physical health profiles over time (Chen & Miller, 2012). In Chen and Miller's theoretical work, they argued that beneficial long-term stress-dampening effects of shift-&-persist would be evident for both physical and mental health outcomes, but their work (and that of others) has mostly focused on physical health outcomes in early to mid-adolescence (Chen et al., 2013, 2015). Indeed, shift-&-persist has shown protective effects in multiple samples against economic stress on the following outcomes: asthma (Chen et al., 2011); allostatic load (Chen, Miller, Lachman, Gruenewald, & Seeman, 2012); inflammation (Chen

et al., 2013); and BMI (Kallem et al., 2013). Although there is now a measure of shift-&-persist developed by Chen et al. (2015), the majority of research on shift-&-persist has measured the construct using subscales of coping measures focusing on shift (e.g., distraction; reappraisal) and additional measures focusing on either meaning in life or optimism for persist (e.g., Chen et al., 2011, 2013). Importantly, this work has also found that both shift and persist strategies are necessary for the protective effect (Chen & Miller, 2012, 2013). Further, the protective effects of shift-&-persist have been tested using moderation analyses, which has illustrated whether the impact of shift-&-persist coping (as measured as described above) on outcomes is dependent on the level of economic stress or socioeconomic status (Chen et al., 2013, 2015; Chen & Miller, 2012).

Given the role of altered stress regulation patterns in the prediction of depressive symptoms (Slavich & Irwin, 2014), shift-&-persist coping strategies may be particularly important in mitigating the impact of uncontrollable stressors on depressive symptoms. To our knowledge, our team has conducted the only two studies testing whether shift-&-persist coping strategies confer benefits for *mental health* functioning in adolescence. Consistent with theory, shift-&-persist moderated the relation between economic hardship and depressive symptoms in a cross-sectional sample of 175 Latinx youth ( $M_{\text{age}} = 14$ ; 100% Latinx), where the positive relation between economic hardship and depressive symptoms was attenuated for youth high in shift-&-persist, but not those with lower levels of shift-&-persist (Christophe et al., 2019). Another recent cross-sectional study also found that shift-&-persist moderated the relation between discrimination and depressive symptoms in a college student sample such that for those highest in shift-&-persist the discrimination-depressive link was completely mitigated but not those at mean or below the mean of shift-&-persist (Christophe, Stein, Martin Romero, Patel, & Sircar, 2021). Thus, our team has established cross-sectional studies in different data sets that shift-&-persist confers protective mental health effects in the face of economic stress and discrimination. Our cross-sectional findings suggest that by early adolescence, some youth have developed the necessary coping and cognitive capacity to utilize and benefit from *shifting* and *persisting* in the face of uncontrollable stressors and understanding the variability in how youth employ these strategies can contribute to our understanding of mental health outcomes in Latinx youth.

Although one of the central arguments in shift-&-persist literature is its long-term protective effects through the dampening of the stress response system, few studies have tested this question longitudinally, with only one in early adolescence and none with mental health outcomes. The one longitudinal study in adolescents found that the protective effects of shift-&-persist as measured at one time point in early adolescence indeed endured over a short time. In a sample of 121 children with asthma ( $M_{\text{age}} = 12.6$ ; 61% non-Latinx White, 25% Asian, 13% 'other'), shift-&-persist was associated with less inflammation at baseline and less functional impairment because of asthma at 6-month follow-up (Chen et al., 2011). Similar to cross-sectional work examining shift-&-persist, this association was only significant for low-SES youth such that shift-&-persist did not predict these outcomes in high SES youth. Thus, the protective effect of shift-&-persist coping strategies for low SES youth can last over time, but whether these protective effects extend to mental health functioning remains untested. Further, it is not clear whether this buffering role is also evident for another frequent uncontrollable stressor for Mexican American youth: ethnic discrimination.

### Peer Ethnic Discrimination and Ethnic Pride

Although most work on shift-&-persist has focused on socioeconomic stress, Lam et al. (2018) extended the shift-&-persist paradigm by examining whether shift-&-persist coping strategies were associated with better functioning when youth are faced with unfair treatment. In this longitudinal daily-diary study of 308 adolescents ( $M_{\text{age}} = 13$ ; 50% non-Latinx White, 20% Black, 8% Asian, 8% Latinx, 14% Multiracial), youth who experienced more unfair treatment experienced better asthma control and higher quality of life over time when they endorsed high levels of shift-&-persist, but shift-&-persist was not protective for those who experienced lower levels of unfair treatment. Although this study was an important first step extending the shift-&-persist paradigm to other types of uncontrollable stressors, the study did not specifically assess ethnic discrimination and half the sample was non-Latinx White.

Shift-&-persist is thought to be an effective coping response for uncontrollable stressors, thus, it may offer some protective effect for ethnic discrimination. However, it is important to consider other protective factors that may be more closely matched to the specific stress of ethnic discrimination. Protective

coping processes that function for socioeconomic stress may not extend to racism and systemic oppression as these stressors may require additional identity-based resources to counter the pernicious effects of racialized stressors (Neblett et al., 2012). Furthermore, identity-based peer stressors uniquely contribute to psychosocial adjustment in addition to other types of peer stress (Earnshaw et al., 2018) also suggesting that identity-based resources may be necessary for youth to counter the damaging impact of racialized stressors. Because many Latinx youth in the United States experience both economic stress and ethnic discrimination (Heppner, Wei, Neville, & Kanagui-Muñoz, 2014), it is imperative to understand how shift-and-persist strategies can potentially buffer the effects of both types of stressors while also taking into account identity-based processes.

Ethnic identity is a multidimensional construct that captures one's attitudes and beliefs surrounding one's ethnic group membership, and the positive affect, affirmation, and pride one feels in that membership is a cornerstone of all major theories of ethnic and/or racial identity (Rivas-Drake, Seaton, et al., 2014; Rivas-Drake, Syed, et al., 2014). Ethnic pride refers to this affirmational component of ethnic identity (i.e., positive feelings toward one's group membership including feelings of pride and happiness as well as feelings of attachment and connection to that group; Phinney, 1992), and meta-analytic work has found that ethnic pride is a robust promotive factor that has been associated with fewer depressive symptoms as main effects (Rivas-Drake, Syed, et al., 2014). Theoretical models of resilience processes in minoritized youth have emphasized the critical role of the affective and attitudinal components of ethnic identity in promoting positive developmental outcomes, arguing that minoritized youth draw on their strong sense of connection to and pride in their ethnic-racial group to combat the effects of discrimination (Neblett et al., 2012; Spencer, 2006). However, many of these models have also elucidated that ethnic identity processes, including ethnic pride, can be most protective as they intersect with adaptive coping responses. For example, in Phenomenological Variant of Ecological Systems Theory (PVEST), identity processes provide an important cognitive frame for youth as they make meaning of their daily experiences and dynamically influence the resultant coping processes (Spencer, 2006). Depending on the stressor and context, youth may need to harness different sets of coping processes leading to resilient outcomes (Spencer, 2006). In the

same vein, Brondolo, Ver Halen, Pencille, Beatty, and Contrada (2009) model of coping with racism also posits that individuals respond to the racialized stressors by employing various coping behaviors, including calling on aspects of ethnic-racial identity such as ethnic pride, and cognitively based coping strategies to support mental health. The key to this model is the notion that individuals do not use singular strategies to cope with discrimination stressors; it is through the combined influence of multiple coping strategies that youth may have the best chance of combatting ethnic discrimination. However, other work has suggested that a high racial centrality where race is an integral part of one's self-concept may serve not as a coping resource but instead as a risk factor exacerbating the damaging impact of ethnic discrimination (Yip, 2018). This is consistent with work of Latinx youth finding that ethnic-racial identity serves as a risk for Latinx youth such that those with higher ethnic-racial exploration reported greater perceived discrimination overtime (Gonzales-Backen et al., 2018). Together, this points to the fact that more empirical work is needed to test whether ethnic-racial identity processes serve to promote better outcomes when facing discrimination or may serve to increase risk, and the current study will be able to tease apart how shift-&-persist and ethnic pride work in tandem when considering different types of uncontrollable stressors.

In one of the few studies examining this question in a sample of Latinx youth (Christophe et al., 2019), shift-&-persist was protective against economic stress in predicting depressive symptoms, consistent with Chen & Miller's theory (2012). However, a significant three-way interaction with ethnic-racial identity, peer ethnic discrimination, and shift-&-persist coping indicated that shift-&-persist in the face of high peer ethnic discrimination was only an asset for youth with lower levels of ethnic-racial identity (measured by private regard, or positive feelings about one's racial group and centrality, or the relative importance of one's racial group; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). In other words, high peer ethnic discrimination predicted greater depressive symptoms across most Latinx youth but was not predictive of depression for youth *low* in private regard and centrality and high in shift-&-persist coping. However, for youth *high* in private regard and centrality, discriminatory peer experiences were not aided by shift-&-persist coping and were still positively associated with greater depressive symptoms. This finding would then suggest that coping processes are indeed dependent on

ethnic-racial identity for racialized stressors, but instead of adding to its protective effect, coping processes served as protective for youth whose race was not as central to their identity, consistent with Yip's (2018) theorizing. We sought to extend the work done by our team in an emerging immigrant context (i.e., North Carolina) to a larger, longitudinal sample of Latinx youth in a traditional immigrant receiving area (i.e., California) where there may be differences in the experiences of ethnic peer discrimination as they link to adolescent well-being (e.g., Potochnick, Perreira, & Fuligni, 2012). We also sought to extend our work with a longitudinal design to see if the benefits of shift-&-persist coping extended across the high school period. Finally, we also extended this work by testing ethnic pride as a potential moderator. Past work examining ethnic-racial identity at the start of high school suggests that it may serve to protect youth across the high school period by mitigating the impact of peer ethnic discrimination on depressive symptom trajectories (Stein, Supple, Huq, Dunbar, & Prinstein, 2016; Tummala-Narra & Claudius, 2013). Building off this work, we tested whether ethnic pride and coping resources at the start of high school would not only be associated with fewer depressive symptoms cross-sectionally but also predict growth/change in depressive symptoms across time. As with past work, we examined how the stressor statistically interacted with coping and identity to test this question.

### Current Study and Hypotheses

Longitudinal work has indicated that the shift-&-persist coping strategies protect low-SES youth and youth faced with unfair treatment from poor physical health outcomes (Chen et al., 2011; Lam et al., 2018), and cross-sectional work has indicated that shift-&-persist coping strategies are associated with lower youth depressive symptoms (Christophe et al., 2019, 2021). However, the shift-&-persist paradigm has yet to be extended to mental health outcomes longitudinally in adolescence. We extend past work by testing three-way interactions examining whether the hypothesized protective effects of shift-&-persist on growth/change in depressive symptoms across high school depend on the *type* of stressor and on the *strength* of ethnic pride for Latinx youth. Following past work testing this question, we analyzed the two three-way interactions within the same model (Christophe et al., 2019).

Given past work by Christophe et al. (2019), we first hypothesized that shift-&-persist coping would buffer the relation between economic hardship and

depressive symptoms, but that this relation would not be moderated by ethnic pride (i.e., no significant three-way interaction, and only one significant two-way interaction with economic hardship and shift-&-persist coping) both for baseline symptoms and longitudinal growth. We hypothesized that the protective effects would be evident at baseline whereby shift-&-persist would mitigate risk immediately and would also have a longitudinal benefit showing a protective prospective effect (less problematic growth in symptoms). We then hypothesized that shift-&-persist would buffer the relation between peer ethnic discrimination and depressive symptoms for those lower in ethnic pride, yet would not protect against peer ethnic discrimination for those with high levels of ethnic pride (i.e., a significant three-way interaction). This is a tentative hypothesis given the thin literature and contradictory theoretical assertions. We also hypothesized these effects would be cross-sectional and longitudinal (i.e., intercept and slope effects).

## METHOD

### Sample and Procedure

Data were from the California Families Project (e.g., Taylor, Widaman, & Robins, 2018), a longitudinal study of 674 Mexican-origin youth recruited from school rosters in Northern California provided directly by school districts and inclusive of all students enrolled in the school at the time. The first wave of data collection was conducted when the youth were in fifth grade ( $M_{\text{age}} = 10.86$ ,  $SD = 0.51$ ; 50.0% male; 50.0% female) during the 2006 to 2007 and 2007 to 2008 school years, with annual assessments still ongoing into young adulthood. Children and parents were interviewed annually at home in their language of choice (English or Spanish) for all waves. Most of the children were born in the US (72%) to a Mexican-origin parent (62% second generation children of immigrants, 10% third generation). Those children who were born in Mexico had lived in the United States for an average of 11.57 years at Wave 1 ( $SD = 2.67$ , range = 3–17). Median family income at Wave 1 was approximately \$37,500 (range = \$5000 to >\$90,000). In the present study, we utilize data from Waves 5 to 8, when the adolescents were in high school (9th–12th grades; 4 waves), as measures used to assess shift-&-persist were not available before Wave 5 (mean age at Wave 5 = 14.75,  $SD = 0.49$ ). Retention was good; 89.7% of the original sample ( $N = 605$ ) participated in the Wave 5 (ninth grade) survey, with a similarly high

percentage of the total sample contributing data on depressive symptoms through Wave 8 (87.2% Wave 6, 88.9% Wave 7, 88.7% Wave 8). The sample retained at Wave 5 was similar in composition to the Wave 1 sample on sex ( $\chi^2(1) = .79, p = .37$ ), generational status ( $\chi^2(1) = .39, p = .53$ ), parent education ( $t(658) = 1.46, p = .14$ ), and on their reports of those study variables that were measured at Wave 1 ( $t_{\text{ethnic pride}}(638) = .08, p = .93$ ;  $t_{\text{peer ethnic discrimination}}(72.189) = -1.08, p = .29$ ;  $t_{\text{depressive symptoms}}(641) = .57, p = .57$ ).

## Measures

All measures were available in both Spanish and English versions, according to participant preference. If a measure was not already available in Spanish, a version was created by bilingual Mexican American project staff with forward and backward translation to confirm accuracy (Robins, Donnellan, Widaman, & Conger, 2010).

**Demographic covariates.** Control variables included child sex (0 = male, 1 = female) and mother report of total annual per capita family income (self-reported income/number of household members) reported at ninth grade to assess the association of economic hardship above actual income.

**Peer ethnic discrimination.** Adolescents' experiences of perceived peer discrimination were measured using five items reported by youth at ninth grade (Johnston & Delgado, 2004). Three items ("You have heard kids at school making jokes or saying bad things about Mexicans/Mexican-Americans"; "Kids at school think bad things about Mexicans/Mexican Americans"; "Kids at school dislike Mexicans/Mexican Americans") asked about discrimination without specifying a time-frame, with response options ranging from 1 (*not at all true*) to 4 (*very true*). Two additional items asked about the past 3 months ("How often have kids at school excluded you from their activities, like not inviting you to go out with them, not inviting you to their houses, or not letting you join their games, because you are Mexican/Mexican-American?"; "Have kids at school called you names because you are Mexican/Mexican-American?") using response options ranging from 1 (*almost never or never*) to 4 (*almost always or always*). These five items were averaged to yield a measure of peer ethnic discrimination, where higher numbers indicated greater perceived discrimination ( $\alpha = .92$ ).

**Economic hardship.** Adolescent perceptions of economic hardship were computed as a mean of 12 items ( $\alpha = .79$ ) administered at ninth grade tapping the adolescent's perceptions of the family's ability to make ends meet, financial stressors, and unmet material needs (Conger et al., 1991). Adolescents reported their level of agreement on a 5-point Likert type scale, with greater numbers indicating greater economic hardship. Items included "Because you do not have much money, your family has a hard time paying bills" and "You often worry about your family's poor financial situation."

**Shift-&-persist.** The California Family Project did not include an explicit measure of shift-&-persist, but, consistent with other studies (Chen & Miller, 2012), we created a measure of shift-&-persist using items that reflected relevant domains. These relevant items were first available at Wave 5, when youth were in ninth grade, precluding an analysis of shift-&-persist's impact on depressive symptoms before that time. We drew five items from a measure of adolescents' coping (Sandler, Tein, Mehta, Wolchik, & Ayers, 2000), which we determined reflected aspects of *shift* (i.e., diverting attention to focus on the positive rather than dwell on the negative; "You tried to notice or think about only the good things in your life"; "You told yourself that it would be ok"; "You thought about what you could learn from the problem", "You told yourself that things would get better", "You reminded yourself about all the things you have going for you"). We used 6 optimism items to measure *persist* (Scheier, Carver, & Bridges, 1994; "In uncertain times you usually expect the best"; "You are always optimistic about your future"; "If something can go wrong for you, it will" (reverse scored); "You hardly ever expect things to go your way" (reverse scored); "Overall, you expect more good things to happen to you than bad; you rarely count on good things to happen to you" (reverse scored). Coping response options ranged from 1 (*almost never or never*) to 4 (*almost always or always*). Optimism response options ranged from 1 (*strongly disagree*) to 4 (*strongly agree*).

Consistent with past shift-&-persist studies (Lam et al., 2018), we conducted a confirmatory factor analysis (CFA) with two correlated factors: shift and persist. We used Mplus version 8 (Muthén & Muthén, 1998–2017) with MLR estimation, which produces standard errors robust to non-normality. Fit of this initial 2-factor CFA was poor ( $\chi^2(43) = 171.836, p < .00001$ ; RMSEA = .070

[CI = .060 to .082]; CFI = .904; SRMR = .058). The 3 reverse-scored items on the *persist* subscale demonstrated high residual covariances and modification indices suggested that allowing these items to correlate beyond their shared *persist* factor variance would improve model fit. These results, along with past research suggesting that negatively worded items can be confusing and lead to poor internal consistency, especially in low-literacy and non-English translations (Barnette, 2000; Roszkowski & Soven, 2010) led us to drop these three items. A final CFA (Figure 1) demonstrated that this 2-factor model fit adequately  $\chi^2(19) = 42.509$ ,  $p = .0015$ ; RMSEA = .045 [90% Confidence Interval = .027 to .064]; CFI = .978; SRMR = .025). Factor scores, which essentially give each participant approximate numerical values on latent variables, were computed for shift-&-persist separately, and then averaged to yield one shift-&-persist score used in the subsequent structural model. Using factor scores is often suggested in the case of complex statistical analyses (see Ng & Chan, 2019 for review).

*Ethnic pride.* Mexican-American ethnic pride was assessed at ninth grade using a mean score of an 8-item scale adapted from Phinney (1992), which measures the adolescent's self-reported positive affirmation toward his/her ethnic background (e.g., "You have a lot of pride in your Mexican roots"; "You feel a strong attachment towards your

own ethnic group"). Items were rated on a 4-point scale from 1 (*not at all true*) to 4 (*very true*) ( $\alpha = .83$ ).

*Depressive symptoms.* Adolescent depressive symptoms were measured using the adolescent's self-report on the major depressive disorder module of the National Institute of Mental Health DISC-IV, a structured interview developed to assess 30 psychiatric diagnoses for children and adolescents in both English and Spanish (Shaffer, Prudence, Lucas, Dulcan, & Schwab-Stone, 2000). The major depressive disorder module consists of 22 items, which were administered annually at Waves 1 to 8, and assessed features of childhood depression (e.g., "Was there a time when you felt grouchy/irritable, and little things made your mad?"). Most items asked children to report whether they had experienced a symptom within the past year (0 = *no*, 1 = *yes*). Symptom count variables were calculated for each wave by computer algorithm consistent with scoring protocols for the DISC-IV. The present study utilizes depression symptom counts from 9th to 12th grades.

## Data Analysis

All analyses were conducted using Mplus 8 (Muthén & Muthén, 1998–2017) with maximum likelihood estimation with standard errors robust to non-normality, and full information maximum

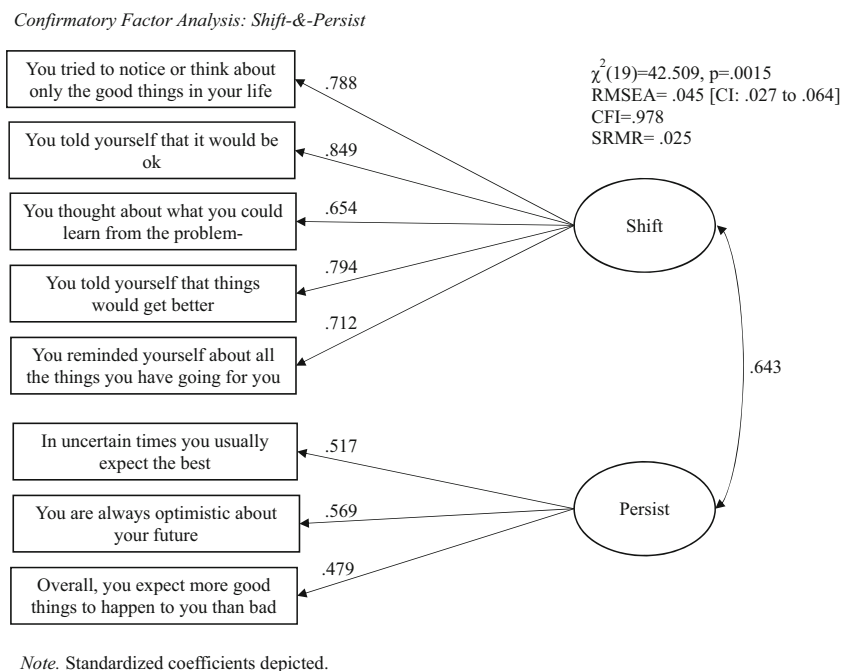


FIGURE 1 Confirmatory factor analysis: shift-&-persist. Note. Standardized coefficients depicted.

likelihood to account for missing data. Means, standard deviations, and correlations for all study variables, including depression measures at all four waves, are included in Table 1. We used growth curve analyses to model change in depressive symptom over the course of high school (9th–12th grades) with all predictors measured in ninth grade. Past research in this sample, which did not test coping processes, has shown that depressive symptoms in this sample declined over the course of Waves 1–8, with a slow decline over the high school years (and steeper declines among boys; Cruz et al., 2021).

Given the non-normal count-type distribution of depressive symptoms, we used a negative binomial specification to model the depressive symptoms outcome, which provided the best fit for the count data distribution of depressive symptoms in (Cruz et al., 2021) prior study of longitudinal growth in depression symptoms in this sample. A model of linear growth fit better than the intercept-only model ( $\chi^2(6) = 70.76, p < .001$ ), but a model of quadratic growth did not fit significantly better than the linear model ( $\chi^2(4) = 5.32, p = .26$ ; this comparison used the MLF estimator because of estimation errors in MLR) and thus the primary analyses here examine linear change in depressive symptoms over the course of high school. In this linear model, we fixed the ninth grade slope factor loading to zero (thus the model intercept estimates average ninth grade depressive symptoms), 10th grade to one, 11th grade to 2, and 12th grade to 3, to model linear change over time. Covariance terms were estimated between the intercept and slope factors.

Next, we tested the study hypotheses in a single structural equation model (see Figure 2), with ninth grade predictors including peer ethnic discrimination, economic hardship, shift-&-persist, and ethnic pride (alongside demographic controls of sex and family income). To test our first hypothesis, we tested the potential three-way interaction between economic hardship, shift-&-persist, and ethnic pride (along with all lower order two-way interactions) on the intercept (ninth grade) and slope of depressive symptoms over the course of high school. To test our second hypothesis, we tested the three-way interaction between peer ethnic discrimination, shift-&-persist, and ethnic pride (along with all lower order two-way interactions) on the intercept (ninth grade) and slope of depressive symptoms over the course of high school. All predictors included in interactions were mean centered. Significant interactions were probed using a

TABLE 1  
Descriptive Statistics and Correlations

	Ethnic Discrimination (9th)	Economic Hardship (9th)	Shift-&-Persist (9th)	Ethnic Pride (9th)	Depression 9th	Depression 10th	Depression 11th	Depression 12th	Gender (5th)	Family Income (9th)
Ethnic discrimination (9th)	1									
Economic hardship (9th)	0.085*	1								
Shift-&-persist (9th)	-0.043	-0.256*	1							
Ethnic pride (9th)	<.001	-0.094*	0.275*	1						
Depression 9th	0.248*	0.257*	-0.222*	-0.058	1					
Depression 10th	0.153*	0.274*	-0.147*	-0.053	0.595*	1				
Depression 11th	0.146*	0.211*	-0.074	-0.013	0.515*	0.573*	1			
Depression 12th	0.128*	0.237*	-0.101*	-0.048	0.466	0.525	0.577	1		
Sex (5th)	-0.048	-0.091*	-0.034	-0.11*	-0.276*	-0.262*	-0.23*	-0.22*	1	
Family income (9th)	0.01	-0.234*	0.151*	-0.008	-0.059	-0.022	-0.073	-0.046	0.051	1
Mean	1.295	2.016	0.000	3.391	4.080	3.794	3.361	2.958	0.50	7166.740
SD	0.364	0.413	0.373	0.503	4.218	3.882	3.763	3.405		6009.000

Note. \* $p < .05$ .



## Structural Model Tested

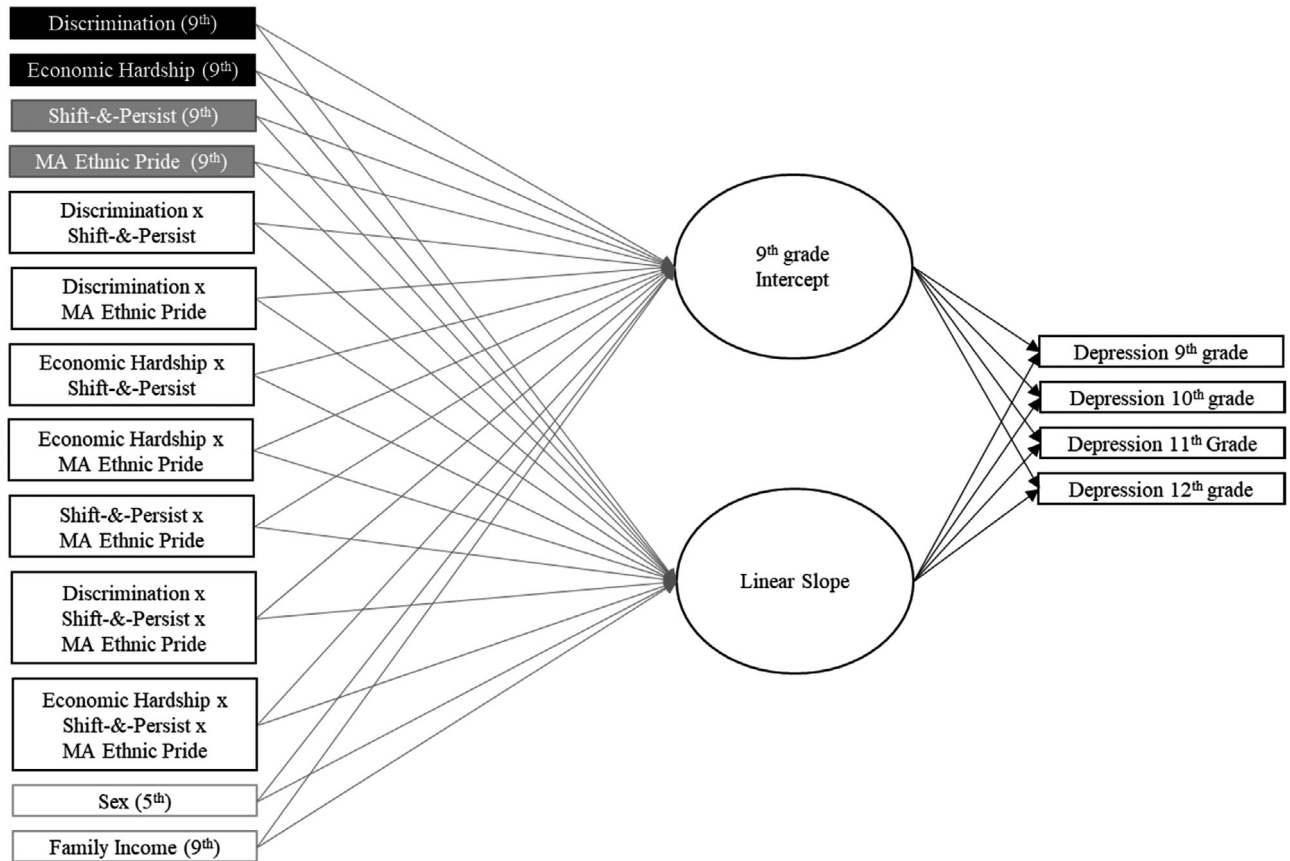


FIGURE 2 Structural model tested. *Note.* Shift-&-persist computed as the mean of shift and persist factor scores generated from confirmatory factor analysis.

simple slopes approach (Lorah & Wong, 2018) at 1 *SD* above and below the mean of the relevant moderator(s).

## RESULTS

Adjusting for covariates (sex and income), depressive symptoms declined slowly on average over the course of high school (ninth grade average intercept = 1.075,  $SE = .058$ ,  $p < .001$ ; average slope =  $-.143$ ,  $SE = .025$ ,  $p < .001$ ), with significant interindividual variability in both the intercept ( $\sigma^2 = .794$ ,  $SE = .103$ ,  $p < .001$ ) and slope ( $\sigma^2 = .037$ ,  $SE = .017$ ,  $p = .030$ ).

Table 2 includes the results for the full model with all predictors and interactions. In terms of covariates in the full model, female sex was related to more depressive symptoms at the ninth grade intercept (intercept  $b = -0.630$ ,  $SE = .084$ ,  $p < .001$ ), but not significantly related to the slope of depression over the course of high school (slope

$b = 0.018$ ,  $SE = .034$ ,  $p = .586$ ). Family income was unrelated to either the intercept or the slope of depressive symptoms (intercept  $b = 0.001$ ,  $SE = .001$ ,  $p = .111$ ; slope  $b < .001$ ,  $SE < .001$ ,  $p = .470$ ). On average, shift-&-persist ratings in ninth grade were associated with fewer ninth grade depressive symptoms (intercept  $b = -0.434$ ,  $SE = .122$ ,  $p < .001$ ), but not significantly related to the slope of depressive symptoms over time (slope  $b = 0.096$ ,  $SE = .052$ ,  $p = .063$ ).

### Economic Hardship

Contrary to our hypotheses, there were no significant three-way nor two-way interactions between economic hardship, shift-&-persist, and ethnic pride predicting the intercept or slope of depressive symptoms over the course of high school (see Table 2). Overall, youth who reported perceiving more economic hardship in ninth grade were more likely to report more depressive symptoms at this

TABLE 2  
Model Results

	Depressive Symptoms				
	Intercept: 9th Grade				
	b (SE)	P	CI	β	β
	Slope				
	b (SE)	P	CI	b (SE)	β
Discrimination (9th)	<b>0.593 (.105)</b>	<b>&lt;.001</b>	<b>0.387, 0.799</b>	.225	-.073 (.050)
Economic hardship (9th)	<b>0.650 (.116)</b>	<b>&lt;.001</b>	<b>0.423, 0.876</b>	.279	.015 (.042)
Shift-&-persist (9th)	<b>-0.434 (.122)</b>	<b>&lt;.001</b>	<b>-0.674, -0.194</b>	-.168	.096 (.052)
Ethnic pride (9th)	-0.063 (.098)	.522	-0.256, 0.130	-.033	.007 (.036)
Discrimination × Shift-&-persist	<b>-0.836 (.309)</b>	<b>.007</b>	<b>-1.443, -0.230</b>	-.109	.142 (.176)
Discrimination × Ethnic pride	0.172 (.221)	.438	-0.262, 0.605	.034	-.107 (.084)
Shift-&-persist × Ethnic pride	0.299 (.212)	.159	-0.117, 0.715	.060	-.002 (.075)
Discrimination × Shift-&-persist × Ethnic pride	<b>1.478 (.556)</b>	<b>.008</b>	<b>0.387, 2.568</b>	<b>.103</b>	<b>-.480 (.243)</b>
Economic hardship × Shift-&-persist	0.108 (.290)	.709	-0.459, 0.675	.018	.091 (.108)
Economic hardship × Ethnic pride	0.110 (.236)	.642	-0.353, 0.572	.022	-.132 (.086)
Economic hardship × Shift-&-persist × Ethnic pride	<b>-1.169 (.650)</b>	<b>.072</b>	<b>-2.443, 0.105</b>	-.092	.333 (.228)
Sex (5th)	<b>-0.630 (.084)</b>	<b>&lt;.001</b>	<b>-0.795, -0.466</b>	-.328	.018 (.034)
Family income (9th)	0.001 (.001)	.111	<.0001, 0.003	.073	<.0001 (>.0001)

Note. Raw negative binomial regression coefficients (b), standard errors (SE), and the 95% confidence intervals (CI) for b reported alongside standardized negative binomial regression coefficients (β). Significant values (p < .05) are bolded.

same time point (intercept  $b = 0.650$ ,  $SE = .116$ ,  $p < .001$ ), but economic hardship was not associated with the slope of depressive symptoms over time (slope  $b = 0.015$ ,  $SE = .042$ ,  $p = .728$ ).

### Peer Ethnic Discrimination

Overall, peer ethnic discrimination was associated with more depressive symptoms at ninth grade (intercept  $b = 0.593$ ,  $SE = .105$ ,  $p < .001$ ), but not the slope of symptoms over time (slope  $b = -0.073$ ,  $SE = .050$ ,  $p = .148$ ). However, this overall association between ninth grade peer ethnic discrimination and depressive symptoms over the course of high school was moderated by both shift-&-persist and ethnic pride, as evidenced by significant three-way interactions for the ninth grade intercept ( $b = 1.478$ ,  $SE = .556$ ,  $p = .008$ ) and the slope ( $b = -0.480$ ,  $SE = .243$ ,  $p = .048$ ). Figure 3 plots the estimated change in depression across high school at varying levels of peer ethnic discrimination, shift-&-persist, and ethnic pride. Youth in ninth grade who reported lower levels of shift-&-persist (solid lines) and higher levels of ethnic discrimination (black lines) also report more depressive symptoms in the ninth grade. Those youth who were at the highest risk of ninth grade depressive symptoms reported experiencing high amounts of ethnic discrimination, alongside low shift-&-persist coping resources and low ethnic pride (thin solid black line). One interesting nuance to this pattern is that those youth who have low ethnic pride and high shift-&-persist (the dotted black line) were protected against this effect of discrimination; their ninth grade depressive symptoms were relatively similar to the depressive symptoms of those youth who reported low amounts of ethnic discrimination (gray lines) in ninth grade.

For the most part, the slopes of depressive symptoms over the course of high school were similar for most youth (regardless of discrimination experiences), with one exception evident when the three-way interaction was probed at high and low levels of ethnic pride and shift-&-persist: Youth who were experiencing high amounts of peer ethnic discrimination in the ninth grade and were low on both shift-&-persist and ethnic pride (the thin solid black line) had a slope that decreased more steeply than the youth with lower levels of discrimination (the thin solid gray line). This may seem

*Change in Depressive Symptoms over High School, by Discrimination, MA Ethnic Pride, and Shift-&-Persist*

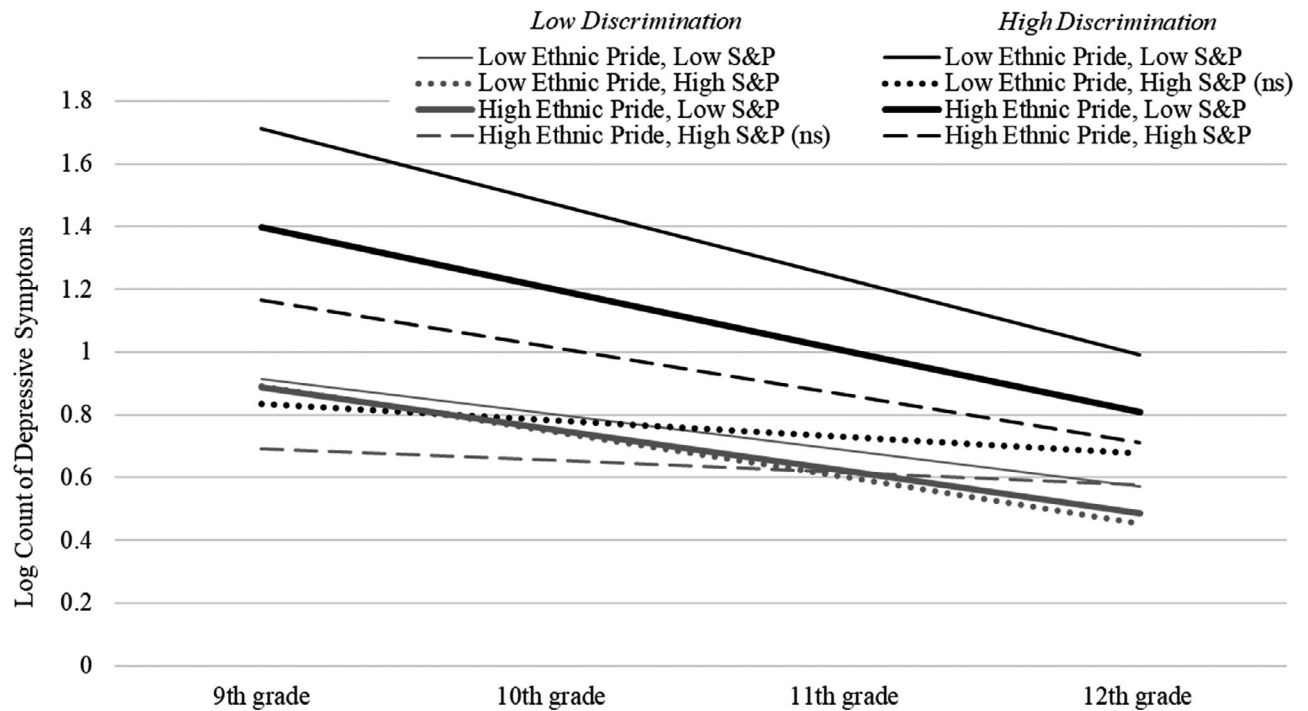


FIGURE 3 Change in depressive symptoms over High School, by discrimination, MA ethnic pride, and shift and persist.

counter-intuitive but may be because of the fact that they report such high depression at ninth grade and are regressing to the mean “catching up” with their peers over the course of high school. However, the depression symptoms of youth who experienced high discrimination at ninth grade never quite catch up to those of the youth with low ninth grade discrimination experiences in the study window, which suggests that ninth grade discrimination experiences may leave a lasting mark across high school.

### Sensitivity Analysis

To explore whether associations with economic hardship were potentially obscured by including both economic hardship and peer ethnic discrimination in the same model, we ran a sensitivity analysis in which we separately examined associations between economic hardship, shift-&-persist, ethnic pride (and the two- and three-way interactions between these predictors), and change in depressive symptoms across the course of high school (both ninth grade intercepts and slopes over time); findings were largely unchanged.

When we examined the parallel model for peer ethnic discrimination, which tested associations

between perceived ethnic discrimination, shift-&-persist, ethnic pride (and the two- and three-way interactions between these predictors), and change in depressive symptoms across the course of high school (without including economic hardship in the model), the pattern of results for the ninth grade intercept remained unchanged. The only significant effect on the slope was that youth with higher shift-&-persist had depression slopes that tended to decrease less rapidly over the course of high school ( $b = 1.510$ ,  $SE = .604$ ,  $p = .012$ ), likely because of youth high on shift-&-persist starting out lower on depression in the ninth grade and thus having less room to decrease over time (i.e., a floor effect).

### DISCUSSION

This study contributes to our understanding of protective processes in Mexican-origin youth by testing the intersection of coping (shift-&-persist) and identity processes (ethnic pride) as buffering the associations of a nonracialized (i.e., economic hardship) and racialized (i.e., peer ethnic discrimination) stressors with depressive symptoms. First and foremost, shift-&-persist served as a coping resource for Mexican-origin youth at the start of

high school, but the constellation of coping and identity processes did not exert any longitudinal benefits across the high school period. Second, as hypothesized, the protective benefits of shift-&-persist were indeed distinct for racialized and non-racialized stressors, highlighting the importance of specifying protective mechanisms for stressors that intersect with identity processes as suggested by Neblett et al. (2012). Consistent with past work (Christophe et al., 2019), in the face of peer ethnic discrimination, the protective effect of shift-&-persist was only evident with those endorsing lower levels of pride in their Mexican American identity. Our study adds significantly to the literature by replicating this counterintuitive effect in a different sample and suggests that coping processes that may be protective for non-racialized stressors do not work similarly for discrimination stressors when youth endorse high levels of ethnic pride.

### Peer Ethnic Discrimination, Ethnic Pride, and Shift-&-Persist

One of the primary purposes of this paper was to understand whether shift-&-persist coping moderated the association between ethnic discrimination and depressive symptoms, and whether this moderation was dependent on identity-based processes. For Latinx youth, the far-reaching negative effects of ethnic-racial discrimination in high school aged have been well-documented (e.g., Delgado et al., 2019; Sirin et al., 2015), but most studies testing coping processes as moderators of the discrimination-depressive links do not also examine identity-based processes (e.g., McDermott et al., 2019). Our findings suggest that for youth experiencing high levels of peer ethnic discrimination, neither shift-&-persist and/or ethnic pride buffered the damaging associations between discrimination and depressive symptoms cross-sectionally or over time. Youth with the highest risk and the least resources demonstrated the worst ninth grade symptoms, as those most at risk for depressive symptoms were youth who faced the highest levels of ethnic discrimination and who were low in both ethnic pride and shift-&-persist coping strategies, suggesting that these processes may offer some psychological benefit. However, as with the only other study testing this question in another sample (Christophe et al., 2019) and consistent with our hypothesis, lower ethnic pride and higher shift-&-persist demonstrated a protective cross-sectional association such that Mexican American youth

with lower levels of ethnic pride and higher shift-&-persist reported similar levels of depressive symptoms as those who reported less peer ethnic discrimination. This association, where low ethnic pride served a protective function when coupled with other coping resources, may be because of the fact that Latinx youth with low levels of pride also have lower centrality; ethnic discrimination has been theorized to be less psychologically harmful for youth for whom race/ethnicity is not an important part of their sense of self (Yip, 2018). If youth indeed had lower centrality and were thus slightly less personally affected by ethnic discrimination, these youth may have been able to better take advantage of shift-&-persist strategies to overcome racially based discriminatory events.

Our overall findings can be understood within the PVEST framework (Spencer, 2006) that contends that ethnic identity processes provide an important lens through which youth interpret and respond to stress. For youth who feel a sense of pride and belonging to a minoritized group that faces systemic, cultural, and interpersonal racism, these experiences of peer discrimination (where they were teased, excluded, and disliked because of their group membership) were related to feelings of sadness, hopelessness, and distress that could not be mitigated by shift-&-persist coping processes. The PVEST model would suggest that when faced with these negative experiences, because of their connection to their group, youth cannot enact the protective resources of shifting away from the stressor or engage in their optimism in what they potentially perceive as omnipresent oppression for their group because of the meaning they attach to their group membership. On the other hand, youth who feel less pride and connection to their marginalized group facing these same experiences are able to cognitively shift away potentially because of the fact that it is less central to their identity. In line with this reasoning, past work with Latinx college students suggests that cognitive reappraisal was associated with more depressive symptoms when students identified more strongly as an oppressed minority, but this cognitive reappraisal was protective when students endorse lower levels of oppressed minority ideology (Perez & Soto, 2011). Importantly, Christophe et al. (2019) measured private regard and centrality and our study measured ethnic pride using a modified MEIM (Multigroup Ethnic Identity Measure) that assessed commitment, attachment, and pride. Taken together, these two findings suggest that shift-&-persist processes are not protective when

high identity Latinx youth face peer discrimination across different conceptualizations and measurement of ethnic-racial identity and two completely different samples (e.g., high school sample California; middle school sample in North Carolina).

Ultimately, because minoritized youth tend to endorse high levels of ethnic-racial commitment, pride, and centrality (Rivas-Drake, Seaton, et al., 2014), it is imperative that research continues to understand the psychological coping resources that serve to protect youth when facing ethnic discrimination and endorsing a strong, committed ethnic-racial identity (Neblett et al., 2012). It may be that the shift-&-persist coping processes most relevant for minoritized youth facing discrimination are not captured in the current measure and may need to be informed by other work on resilience processes in minoritized groups (Heppner et al., 2014). For example, shift-&-persist processes may be inherent in critical civic engagement (Hope & Spencer, 2017) whereby youth reappraise ethnic discrimination from being individually related to them to broader inequities (shift) and then engage in behaviors to make system change that foster meaning and optimism (persist). Indeed, critical civic engagement was protective for Latinx youth when facing discrimination in relation depressive symptoms (Hope, Velez, Offidani-Bertrand, Keels, & Durkee, 2018). Similarly, spiritually based coping also involves shifting away from the stressor and providing deeper meaning and purpose (persist) (Sumner, Burrow, & Hill, 2018). There is emerging evidence from a different sample of college students that shift-&-persist coupled with critical civic engagement and spiritually based coping may mitigate the impact of discrimination on depressive symptoms, indicating that these coping resources may be necessary components needed to overcome the negative mental health impacts of discrimination (Christophe et al., 2021). Future work should consider other constellation of coping resources that are embedded in the daily lives of minoritized youth that can serve as net protective factors in the toxic environment of racism and discrimination (Spencer, 2006).

Finally, for Latinx youth in particular, there may be a unique impact of familial factors influencing the effects of discrimination on mental health outcomes, and the enactment of familism values may be particularly important to consider. Although on their own familism values do not moderate the impact of discrimination on depressive symptoms (e.g., Ayón, Marsiglia, & Bermudez-Parsai, 2010; Stein, Gonzalez, Cupito, Kiang, & Supple, 2015),

engaging in familistic behaviors may help Latinx youth shift away from discrimination and connect with meaning and purpose in their homes (Stein, Mejia, Gonzalez, Kiang, & Supple, 2020). Supporting this notion, familial obligations and providing familial assistance is associated with fewer daily internalizing symptoms in for Mexican-origin youth (Telzer, Tsai, Gonzales, & Fuligni, 2015). Furthermore, Latinx youth with greater familism values engaged in greater coping when facing higher levels of stress relative those with lower familism values (Santiago, Torres, Brewer, Fuller, & Lennon, 2016). At the same time, recent work has also highlighted familial experiences of discrimination can further exacerbate the discrimination-depression link for Mexican-origin adolescents (Park, Du, Wang, Williams, & Alegría, 2018; Park, Wang, Williams, & Alegría 2018) and coping with discrimination processes are embedded within familial processes (Martin Romero et al., 2021). Not surprisingly, familial resilience buffered the impact of discrimination on depressive symptoms for Latinx youth (Ramos et al., 2021). Therefore, as more research examines how Latinx families cope with discrimination, it will be important to consider the role of familism values and familial coping in terms of shift-&-persist processes to test whether these do offer additional benefits for Latinx youth.

### Shift-&-Persist and Economic Hardship

Overall, across all levels of economic hardship in this Mexican-origin sample, shift-&-persist was related cross-sectionally to fewer depressive symptoms. Indeed, there was a promotive association between shift-&-persist and depression that was clear in the sensitivity analyses (when ethnic peer discrimination was not included in the model). Our finding differs from past work in other samples finding that the protective effects of shift-&-persist were only evident for those at the highest economic risk (e.g., low socio-economic status; Chen et al., 2015). These discrepant results may be because of the fact that this current sample is, on the whole, lower SES compared with the past samples where shift-&-persist was assessed. For example, this sample had a mean income of \$30,000 to \$35,000 at the time of the study (relative to US median income of \$48,451 in 2006) versus Chen et al. (2015) sample where there was diversity in income and where median income was more comparable to the median in Canada at the time (median of sample \$65,000 vs. median of Canada \$79,600). Because our sample is at greater economic risk overall, this

finding suggests that shift-&-persist is advantageous for lower income Latinx youth.

These results were different also from Christophe et al. (2019) study, which did find that shift-&-persist protected against economic stress among Latinx adolescents. Both the current study and the Author cite study used measures of perceived economic pressure, albeit slightly different ones (Conger et al., 1991 vs. Barrera et al., 2001). However, these studies differed in controlling for income. Consistent with the family stress model (Conger et al., 1991), negative psychological ramifications of economic stress result from the perceived economic pressure while taking into account income. Our findings suggest that, in this lower-resourced sample, perhaps once you take into account both income and economic pressure, shift-&-persist serves a promotive effect. Finally, another difference between these two studies is the measure of shift-&-persist, such that the present study used a measure that focused on optimism while the Author cite study included a measure of meaning in life. However, other work using only an optimism sub-scale as a measure of persist found an interaction between SES and shift-&-persist (Chen et al., 2011). Further, other work has suggested that either optimism or meaning in life result in a similar protective effect (Mello, Wiebe, & Berg, 2019). Taken together, how experiences of economic stress and ethnic discrimination intersect with the identity and meaning-making processes for adolescents to result in the enactment coping processes needs further research attention to best understand how to support Latinx students. Our findings suggest that, depending on the stressor and concomitant identity processes, coping resources may vary in their benefits, and more nuanced research should also consider how youth adapt cognitively, emotionally, and behaviorally to different types of stressors, especially as they intersect with identity processes.

Our paper contributes to theorizing on the intersection of coping and identity processes and how shift-&-persist can be incorporated into how we consider resilience in minoritized populations. Taken together with past findings on shift-&-persist in minoritized youth, this set of coping resources may be critical for youth facing uncontrollable stressors as hypothesized by Chen and Miller (2012), but potentially, minoritized youth may face more uncontrollable stressors because of the omnipresence of oppression. This would potentially explain the promotive versus protective effect that was found cross-sectionally. However, for

racialized stressors, aspects of identity need to be considered concurrently with coping as suggested by Brondolo et al.'s model (2009), PVEST, and Neblett et al.'s model (2012), an assertion that has not been tested frequently. Our findings suggest that shift-&-persist's protective effects are contingent on identity processes, and research still needs to uncover what factors serve to protect youth with high levels of ethnic pride when facing discrimination. Other work by our team in other samples finds that a culturally congruent shift-&-persist may be protective, whereby other culturally embedded coping that follows the tenets of shift-&-persist are protective (e.g., critical civic engagement, religious coping) (Christophe et al., 2021). Future work should continue to test how cognitive coping processes (e.g., disengagement, reappraisal, acceptance), familial coping, factors that contribute to meaning in life, and optimism coalesce with identity processes to result in thriving and growth for Latinx youth.

### Longitudinal Associations

In addition to cross-sectional associations, there was some limited evidence of longitudinal interplay among discrimination, ethnic pride, and shift-&-persist in their associations with change in depressive symptoms over the course of high school. This was most evident for those adolescents experiencing high discrimination alongside the lowest psychological and identity resources at baseline (who also evidenced the highest levels of ninth grade depression). This pattern was such that, although their depression symptoms decreased more rapidly from initially high levels over time, this decrease was not enough to entirely wipe out differences by the 12th grade differences (with those adolescents experiencing high discrimination at ninth grade continuing to report higher levels of depression at the end of high school). This finding is consistent with past longitudinal work on Mexican-origin adolescents where declines in risk trajectories were evident across time for those at the highest risk, yet their outcomes never reach the low-risk group (Delgado et al., 2019). Of note, we treated shift-&-persist and ethnic pride as time-invariant (measured at a single ninth grade timepoint), but it may be that for mental health outcomes growth and change in coping and identity processes are more important for mental health than these resources at a single static point in time. Indeed, a recent meta-analysis found that secondary control coping (including aspects of shift) is

associated with fewer concurrent internalizing symptoms but coping (including secondary control or distraction strategies) did not predict internalizing symptoms longitudinally (Compas et al., 2017). Thus, future work should potentially look at joint trajectories of mental health symptoms and shift-&-persist and identity processes to more fully examine longitudinal interplay among protections and risk. Future work should continue to test whether the protective effect of shift-&-persist for mental health symptoms is mostly evident cross-sectionally, and in particular, how this relates to health markers that have been studied in the shift-&-persist literature (e.g., Chen et al., 2015). By combining the cross-sectional and longitudinal health and mental health outcomes in one study, research can begin to identify the key developmental mechanisms that undergird the promotive and protective effects of shift-&-persist, potentially using developmental cascade models across multiple systems.

### LIMITATIONS AND FUTURE DIRECTIONS

Although our study provides some insights into the intersection of shift-&-persist, peer ethnic discrimination and ethnic-racial identity, much more work is needed to elucidate protective factors in the Latinx community. Although we found that low ethnic pride mitigated some of the negative effects of ethnic discrimination as long as youth had high shift-&-persist resources, more work needs to continue to test the role of ethnic pride in youth development. The reality is that Latinx youth tend to report high levels of ethnic pride and affirmation (Cruz, King, Cauce, Conger, & Robins, 2017; Umaña-Taylor, Vargas-Chanes, Garcia, & Gonzales-Backen, 2008), and thus, it important to continue to examine what coping strategies would be most effective in concert with ethnic pride and private regard as suggested by recent theory (Neblett et al., 2012). Coping efficacy and coping competence may also be important to consider as protective in the face of racialized stressors (Anderson & Stevenson, 2019), as low perceived ability to cope likely impedes the effectiveness of the actual coping strategies youth employ. Furthermore, familial-based processes will likely also be important to consider in conjunction with coping. Thus, understanding how youth perceive their ability to cope with racialized stressors using shift-&-persist type model would be important to test in future work. The literature on coping with ethnic discrimination is limited in that few measures exist that

explicitly assess coping with ethnic discrimination, and shift-&-persist items may need to be modified explicitly for discriminatory events. Finally, drawing on other cultural strengths like cultural values, sense of community, and critical civic engagement may be important to further consider as important to the constellation of how Latinx youth cope with discrimination, and given the current sociopolitical climate that is devastating the health of the Latinx community in the United States (e.g., Roche, Vaquera, White, & Rivera, 2018), this work is imperative. Peer ethnic discrimination and other risks for maladjustment among Latinx youth may be nested within specific schools and neighborhoods. Although an exploration of the nested nature of these risks was beyond the scope of our study, future work using multilevel modeling could examine the effectiveness of different coping strategies in protective against depression for youth in schools high in peer discrimination versus youth in schools with minimal discrimination.

Additionally, our measure of shift-&-persist did not include meaning and purpose, but focused primarily on optimism, and while that has been done in past literature, the meaning and purpose subscales may be very important to minoritized and marginalized youth (Sumner et al., 2018). As noted above, considering the constellation of protective factors in these youth, activities that serve to promote meaning and purpose in the context of marginalization may be critical in the face of discrimination and could couple with ethnic-racial pride to be the most protective. Future work should include both the shifting components as well as unique meaning making for marginalized youth. For example, work with Latinx youth may focus on the meaning making the context of their religious beliefs (Ai, Carretta, & Aisenberg, 2017) or family contributions (Telzer et al., 2015) in the face of economic stress. Furthermore, it may also be critical to consider optimism specific to racial/ethnic relations as key to the protective effects of shift-&-persist in the face of ethnic discrimination. It may be that a specific type of optimism is most protective (e.g., racial relations will improve; things will be better in terms of race relations for my kids). Future work should potentially examine whether this type of optimism may be protective and how that intersects with civic engagement. Further, the shift-&-persist measure was created using an average of the shift-&-persist factor scores, as opposed to using a full secondary factor model, which could better account for measurement error. Finally, Latinx youth in our sample

endorsed low levels of depression overall without much variability, making it difficult to predict the variability in longitudinal depressive symptoms that did exist. Future work in clinical samples of Latinx youth followed over time may be better suited and more highly powered to detect potential interactions between shift-&-persist coping and discrimination on depressive trajectories.

It is clear from the current results that shift-&-persist serves as a cross-sectional protective factor for Mexican American youth as it was associated with fewer depressive symptoms. Indeed, youth at the greatest risk for depressive symptoms were those with the lowest levels of psychological, coping, and cultural resources and highest levels of peer ethnic discrimination. Yet, when facing high levels of peer ethnic discrimination, shift-&-persist is indeed protective when youth endorsed low levels of ethnic pride. Taken together, this suggests that although shift-&-persist can provide some level of protection for marginalized youth, when facing discrimination, these effects are attenuated and depend on ethnic-racial identity processes. The complexity of our findings belies the difficulty in understanding how youth facing multiple oppressive systems and uncontrollable stressors navigate these contexts and flourish. Practitioners may want to consider helping youth use shift-&-persist processes for non-racialized stressors (e.g., cognitively disengaging from stressors and investing cognitive resources in finding where there is optimism in their lives) and consider other types of coping that may be enacted in the face of discrimination, especially because Latinx youth tend to endorse high levels of ethnic pride. It would be important to work with youth building on the cultural resources available to youth and their families to support their ability to shift-&-persist more effectively when endorsing higher levels of ethnic pride.

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### AUTHOR CONTRIBUTIONS

All authors contributed significantly intellectually to the current manuscript. GLS conceived the current study from an existing data set, helped plan the statistical analyses, and drafted the majority of the manuscript. MJ conducted the statistical

analyses, wrote the Data Analysis and Results sections, and made the table and figures. RC contributed to the statistical analyses and edited the Data Analyses and Results sections. KC and MC contributed to the literature review, interpretation of data, and manuscript preparation. RR conceived and designed the original study, secured funding, coordinated data collection, and helped draft the manuscript. All authors read and approved the final manuscript.

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