

DISCRIMINATION AND CULTURAL SOCIALIZATION AMONG TRANSRACIALLY
AND INTERNATIONALLY ADOPTED ADOLESCENTS: A LONGITUDINAL STUDY

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ABSTRACT

DISCRIMINATION AND CULTURAL SOCIALIZATION AMONG TRANSRACIALLY AND INTERNATIONALLY ADOPTED ADOLESCENTS: A LONGITUDINAL STUDY

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The current study examined how experiences of discrimination relate to adjustment outcomes in a sample of internationally, transracially adopted adolescents from the Minnesota Sibling Interaction and Behavior Study (SIBS; $N=456$ adolescents; M age at T1=14.9, M age at T2=18.3, M age at T3=22.3). The moderating roles of racial and ethnic socialization by parents were also examined. A longitudinal, cross-lagged design was used. Results indicated that discrimination predicted higher levels of internalizing and externalizing problems in adolescents experiencing low levels of racial socialization. In adolescents experiencing high levels, associations were not significantly different from zero. Ethnic socialization did not moderate these associations. Such findings provide important information for adoptive parents regarding how to prepare their children to cope with discrimination.

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Introduction

Of the 2 million adopted children living in the U.S. today, nearly 25% were adopted internationally (U.S. Department of Health and Human Resources, 2009). Nearly 80% of internationally adopted children in the U.S. are from Asia, Latin American, or Africa, while approximately 90% of internationally adoptive parents are White (U.S. Department of Health and Human Resources, 2009). As a consequence, the vast majority of international adoptions are also transracial, in which the children differ in race and/or ethnicity from their adoptive family members. Transracial adoption is considered to be the most visible form of adoption due to the obvious physical differences between adoptive parents and children (Lee, 2003).

To date, efforts to understand the adjustment outcomes of internationally adopted youth have largely focused on preadoption risk factors (e.g., age at adoption, institutionalized care, abuse/neglect) that may lead to maladjustment (Lee, 2003). The specific racial and ethnic experiences of internationally adopted children and adolescents have been significantly understudied. This gap in the literature is particularly surprising since transracial, international adoptees face a unique set of challenges growing up in White households. They must navigate the paradox of both being a part of, yet separate from, their adoptive families and the dominant White society (Lee, 2003). Moreover, the absence of a shared racial and ethnic culture with White parents can create the feeling of a loss of ethnic or racial culture and difficulties in developing a positive ethnic identity and coping with experiences of discrimination (Lee & Miller, 2009). This is similar to the concept of “cultural homelessness” reported by many individuals of mixed ethnic backgrounds, in which they experience feelings of isolation and a lack of belonging to a unified cultural community (Vivero & Jenkins, 1999). Clearly, racial and

ethnic experiences are an important piece of the puzzle for internationally, transracially adopted youth that remain unexplored.

Discrimination

Discrimination may be an especially important racial and ethnic experience that influences outcomes for transracially, internationally adopted children (Lee, 2003). A large body of literature has shown that perceived discrimination is harmful to psychological well-being, predicting outcomes such as anxiety, depression, distress, lower self-esteem, lower life satisfaction, and lower positive affect across multiple populations in a wide range of cultural contexts (as examples, see Schmitt, 2014; Williams & Mohammed, 2009). Moreover, discrimination has been shown to be an especially salient stressor during adolescence, increasing the risk of internalizing and externalizing behaviors and substance use (Coll et al., 1996).

To date, however, only a small number of studies have examined the effects of racial and ethnic discrimination on mental health outcomes in transracially, internationally adopted individuals. Furthermore, all studies were restricted to cross-sectional analyses. Lee et al. (2015) found that discrimination was positively associated with internalizing and externalizing problems and substance use in a sample of 136 internationally, transracially adopted Korean-American youth. Cederblad et al. (1999) examined 211 internationally adopted youth and found that perceived discrimination among ethnic minority adopted youth in Sweden was related to behavior problems, distress, and lower self-esteem. These results were largely replicated in Lee (2010)'s study of 1,579 adopted youth in the U.S. Similarly, Reinoso (2013) assessed 48 adopted children's thoughts and feelings about adoption and found that perceived discrimination was an especially salient issue for transracial adoptees compared to same-race adoptees, as they reported higher levels of perceived discrimination and negative interactions with peers, suggesting that a

lack of a shared racial and/or ethnic background with parents may magnify the experience of discrimination for transracial adoptees. In a study examining school adjustment, discrimination was found to be negatively associated with a sense of school belonging and engagement (Seol et al., 2016). The current study sought to build on this nascent literature, evaluating whether and how experiences on discrimination affected mental health outcomes over time in a large sample of transracially and internationally adopted youth.

Ethnic and Racial Socialization

An important, and related, line of research focuses on the role of parents in the promotion of positive ethnic and racial identity development, a practice known as cultural socialization (Hughes & Chen, 1997; Hughes et al., 2006; Lee, 2006). Cultural socialization is a common practice in minority families, as parents attempt to help their children achieve high self-esteem and racial pride and develop strategies for coping with experiences of bias and discrimination (Hughes et al., 2006). Importantly, however, cultural socialization is a multidimensional construct consisting of both ethnic and racial forms of socialization. Although these terms are often used interchangeably to refer to the general process through which parents transmit information regarding race and ethnicity to their children, many researchers view these concepts as separate and distinct constructs (Rivas-Drake, 2011; Banerjee, Harrell, Johnson, 2011). Ethnic socialization refers to parents' communication and transmission of ethnic and racial values, beliefs, and behaviors to the child (Hughes et al., 2006). Research on ethnic socialization originated in studies of Latino and Asian immigrant groups in the United States, and specifically their efforts to promote children's cultural retention and identity achievement while facing competing pressures to assimilate to the dominant White society (Knight, Bernal, Cota, et al., 1993; Knight, Bernal, Garza, et al., 1993; Ou & McAdoo, 1993; Quintana & Vera, 1999). Racial

socialization, on the other hand, refers to the process by which parents teach children about their racial identity and prepare them to cope with experiences of discrimination (Hughes, 1997).

Racial socialization has most often been studied in African American families and focuses on understanding how parents promote children's self-esteem and prepare them to understand racial barriers and systems of oppression in the United States (Boykin & Toms, 1985; Peters, 1985, 2002; Spencer, 1983; Spencer & Markstrom-Adams, 1990; Tatum, 1987; Thornton et al., 1990).

Meta-analyses have indicated that both ethnic and racial socialization are associated with higher self-esteem, fewer externalizing problems, and higher academic achievement for minority children and adolescents (Hughes et al., 2006). Studies have found that racial socialization protects minority youths against the effects of discrimination, and is associated with lower levels of distress among adolescents who report experiencing frequent racial discrimination (Miller, 1999; Fischer & Shaw, 1999; Neblett et al., 2008). Racial socialization has also been found to serve as a protective buffer against the effects of peer and teacher discrimination on grade point average among African American adolescents (Wang & Huguley, 2012). For its part, ethnic socialization is associated with the development of a more positive ethnic identity and a sense of ethnic pride, which may help foster resilience in the face of discrimination (Hughes et al., 2006). Even so, there is growing evidence that cultural socialization practices may differ depending on the sex of the adolescent. Female adolescents report higher levels of parental racial and ethnic socialization than their male counterparts, which may lead to more positive mental health and academic outcomes (Brown, 2010).

In line with research on cultural socialization more broadly, a few recent studies have suggested that it is beneficial for adoptive parents to discuss issues of race and ethnicity openly with their transracially adopted children. Ample parental support of ethnic socialization has been

shown to predict greater psychosocial well-being of transracial, internationally adopted children (Yoon, 2004). Furthermore, there is evidence that parental minimizing, rather than acknowledgment, of ethnic and racial differences can lead to negative outcomes for children. For example, adolescents whose families acknowledged ethnic and racial differences evidenced fewer delinquent behaviors than adolescents whose families held discrepant views about the importance of discussing ethnic and racial differences (Anderson et al., 2015). Similarly, in a qualitative study by Samuels (2009), transracially adopted adolescents reported that parental ‘color blind’ attitudes caused them to feel racially alienated and invalidated, highlighting the importance for adoptive parents to recognize and be supportive of their children’s differences. Cultural socialization has also been found to have a moderating role in the relationship between discrimination and adjustment outcomes for adoptees. In one study, Arnold et al. (2016) found that in a sample of 83 transracially adopted youth, ethnic socialization by parents moderated the relationship between discrimination and depression. Similarly, Leslie et al. (2013) examined 59 transracially adopted children, and found that discrimination was associated with increased feelings of stress; however, this association was moderated by effective racial socialization by parents. Although the analyses were cross-sectional, these studies suggest that racial and ethnic socialization by adoptive parents may be important moderators of the associations between experiences of discrimination and mental health outcomes in transracially and internationally adopted adolescents.

Current Study

Although the aforementioned studies collectively suggest an important role for discrimination in the outcomes of transracially, internationally adopted youth, as well as an important role for adoptive parents in supporting and communicating about their children’s racial

and ethnic identities and challenges, more work is clearly needed before firm conclusions can be drawn. As noted, the transracial, internationally adopted samples of youth examined to date have been exclusively cross-sectional, making it difficult to confirm either the direction of discrimination's effect (from discrimination to maladjustment or vice versa) or the moderating role of ethnic and racial socialization by parents. Moreover, we know of no study that has directly examined how parental cultural socialization may moderate the effects of discrimination to influence internalizing and externalizing symptoms (as opposed to more general adjustment outcomes) in transracially adopted youth.

The current study aims to fill these critical gaps in the literature, examining associations among discrimination, cultural socialization (including both ethnic and racial socialization), and adolescent psychopathology in a large and longitudinal sample comprised exclusively of transracially and internationally adopted adolescents. We excluded the domestic adoptees from our sample, focusing solely on the international adoptees, in order to ensure we fully captured the experience of adolescents who differ in both race and country of origin from their parents. Furthermore, we examined both internalizing and externalizing psychopathology, rather than focusing on the broader adjustment outcomes examined in extant research. Because discrimination is associated with higher levels of both internalizing and externalizing symptoms, it is important to understand how parental practices may influence these associations.

Analyses were conducted using a longitudinal, cross-lagged design, allowing us to estimate cross-time effects of discrimination on maladjustment while controlling for within-time associations and stability coefficients. We specifically hypothesized that discrimination would predict depression and antisocial behavior over time, and that this association would be

moderated by parental engagement in cultural socialization, such that higher levels of cultural socialization would decrease the association between discrimination and later psychopathology.

Methods

Participants

Participants included male and female sibling pairs who participated in the Sibling Interaction and Behavior Study (SIBS), a population-based, longitudinal study of adoptive and biological adolescent siblings and their parents in the state of Minnesota. Adoptive families living in the Twin Cities greater metropolitan area were contacted based on records for the three largest adoption agencies in Minnesota (averaging between 600 and 700 placements a year), and were selected to have (1) an adopted adolescent placed as an infant (less than 2 years of age) and first assessed between the ages of 11 and 19 years, and (2) a second adolescent sibling falling within the same approximate age range and non-biologically related to the first. Adopted adolescents had a mean age of placement of 4.8 months ($SD=4.7$ months). Other eligibility requirements included living within driving distance of the Minneapolis-based laboratory, siblings no more than 5 years apart in age, and the absence of cognitive or physical handicaps that would preclude completion of the daylong intake assessment. Among eligible families, 63% of adoptive families participated. There were no significant differences between participating and non-participating adoptive families in parental education, occupational status, or marital dissolution (McGue et al. 2007). More information on subject recruitment and participation rates is available in McGue et al. (2007).

The sample in the current study consisted of 274 adoptive families with internationally and transracially adopted youth. The sample was restricted to Korean-American adolescents, as they made up the largest racial group of the total sample (93%). There were 182 adoptive families in which both adolescents were transracially and internationally adopted and 92 families in which only one adolescent was transracially and internationally adopted (for a total of 456

youth in 274 families). The adoptive parents were broadly representative of the ethnic composition of the Minnesota population at the time they were born; approximately 95% identified as White.

The intake assessment was completed by all 456 adolescents at a mean (SD) age of 14.9 years (1.9). The first follow-up assessment was also completed by all 456 adolescents at an average age of 18.3 years (2.1). The second follow-up assessment was completed by 442 adolescents (in 260 families) at an average age of 22.3 years (1.8). Over half of the sample was female (61%). A summary of the sample sizes, ages, and measures administered at each wave of assessment are presented in Table 4.

Measures

Antisocial Behavior Symptoms. Antisocial behavior was assessed at all 3 times points using one of the two symptom dimensions (i.e., criterion A and C) that comprise DSM-IV Antisocial Personality Disorder. At time 1, we examined the sum of endorsed or partially-endorsed criterion C symptoms (i.e., the Conduct Disorder symptoms) consistent with the young age of the adolescents. At times 2 and 3, we examined the sum of endorsed or partially-endorsed criterion A symptoms (i.e., the adult-specific antisocial behavior (AAB) symptoms of Antisocial Personality Disorder; available for 392 participants at time 2, as those younger than 16 were not administered the AAB interview). Interviewers had either a B.A. or M.A. in psychology or a related field and underwent training and evaluation prior to administering the clinical interviews. CD was assessed using the Diagnostic Interview for Children and Adolescents-Revised (DICA-R) (Reich, 2000; Welner et al., 1987). Of the possible 13 symptoms of CD, symptom 9 (“has forced someone into sexual activity with him or her”) was not assessed. AAB was assessed via the Structured Clinical Interview for personality disorders (SCID-II) (Spitzer et al., 1987). The

reporting period for CD was infancy until age 15 (the age cutoff specified in the DSM-IV), while the reporting period for AAB at time 2 was since age 15. Therefore, the reporting periods did not overlap across times 1 and 2. AAB symptoms at time 3 were assessed since the time 2 visit.

Our focus on CD at intake but AAB at follow-up allowed us to accommodate (at least some of) the developmental change in antisocial behavior from early-adolescence through late-adolescence/emerging adulthood, while maintaining a focus on clinically-meaningful levels of these behaviors. In particular, the behavioral manifestation of antisocial behavior changes rather dramatically from childhood to adulthood. As children, antisocial youth are likely to lie, steal, destroy property, set fires, and to be physically cruel. By early adolescence, these same youth are also likely to be truant from school, break curfew, and run away from home, behaviors that are quite rare prior to adolescence (Loeber & Hay, 1997; Renk, 2008). While some of these behaviors continue to characterize antisocial individuals in adulthood (e.g., stealing, lying, and physical cruelty), others are either no longer applicable (e.g., truancy, breaking curfew) or are expressed less frequently (e.g., fire setting). The DSM-IV captured (some of) this developmental change in its diagnostic criteria for Antisocial Personality Disorder (i.e., CD is assessed until age 15, while AAB is assessed since age 15).

Following the interview, a clinical case conference was held in which the evidence for every symptom was discussed by at least two advanced (second year and beyond) clinical psychology doctoral students. As necessary, audio tapes from the interview were replayed or the participant was re-contacted for clarification. Given our focus on symptom counts rather than diagnoses, duration rules were excluded. Symptoms judged to be definitely present (i.e., they were clinically significant in both severity and frequency) were counted as one full symptom. Symptoms judged to be partially-endorsed (i.e., they were clinically significant in either severity

or frequency, but not both) were counted as half of a symptom. The reliability of the consensus process was good, with kappas of 0.79 for diagnoses of CD and .82 for “diagnoses” of AAB. To correct for positive skew in the data (skewness ranged from 1.28 to 2.81), the measures were log transformed prior to the analyses (standardized skewness coefficients following the transformation ranged from .29 to 1.64).

Depressive Symptoms. Symptoms of Major Depressive Disorder were assessed at all three time points using the *Structured Clinical Interview for the DSM-III-R Diagnosis* (SCID), updated to cover DSM-IV criteria (Spitzer, Williams & Gibbon, 1987). Consistent with the DSM-IV, we made use of “gateway symptoms” (i.e., depressed mood and anhedonia) in our administration of the MDD interview. Specifically, if the gateway symptoms were denied (i.e., symptoms were neither endorsed nor partially-endorsed), the remaining seven symptoms were not assessed. Given our focus on symptom counts rather than diagnoses, duration rules were excluded. Symptoms judged to be definitely present (i.e., they were clinically significant in both severity and frequency) were counted as one full symptom. Symptoms judged to be probably present (i.e., they were clinically significant in either severity or frequency, but not both) were counted as half of a symptom. The reliability of the consensus process was good, with a kappa of 0.82 for diagnoses of MDD. The number of symptoms ranged from 0-9, with higher values representing more severe depression. To correct for positive skew in the data (skewness ranged from 1.38 to 2.98), the measures were log transformed prior to the analyses (skewness following the transformation ranged from 1.27 to 2.44).

Discrimination and Cultural Socialization. Adolescents completed the Race and Culture questionnaire, which measures experiences of discrimination and ethnic and racial socialization. The Race and Culture questionnaire used here was based on the Adoptive Parental

Support of Adoptee's Ethnic Socialization Scale developed by Yoon (2004), which assesses the extent to which parents support and communicate with their adoptive children about their racial and ethnic background. At the time this scale was developed, no existing instruments were found that measured cultural socialization by adoptive parents. All other items on the Race and Culture questionnaire were created/adapted for the SIBS study. Items were similar to those in other measures of ethnic identity (e.g., Multigroup Ethnic Identity Measure (MEIM), which assesses the way individuals think and feel about their ethnic identity; Phinney, 1992). A complete list of items on the Race and Culture questionnaire is presented in Table 5.

In order to determine whether the Race and Culture questionnaire did indeed assess the three domains of discrimination, ethnic socialization, and racial socialization, respectively, the dataset was split in half so that exploratory and confirmatory factor analyses could be run independently. A maximum likelihood exploratory factor analysis with Direct Oblimin rotation was performed on the first subset of the data, allowing the factors to correlate with one another. Using eigenvalues greater than 1 and scree plot examination, results indicated that there were three factors underlying the data. The first factor had an eigenvalue of 4.89 and explained 35.5% of the variance, the second factor had an eigenvalue of 2.09 and explained 15.1% of the variance, while the third factor had an eigenvalue of 1.77 and explained 12.6% of the variance. The 4 items that measured discrimination loaded more or less cleanly onto the first factor, with factor loadings ranging from .31 to .93. Cross-loadings on the second and third factors were very low (ranging from -.01 to .08). The 6 items that measured ethnic socialization fully loaded onto the second factor, with factor loadings ranging from .78 to .90. Cross-loadings on the first and third factors were low (ranging from -.20 to .13). The 4 items measuring racial socialization also loaded cleanly onto the third factor, ranging from .40 to .74, with low cross-loadings on the other

two factors (ranging from -.23 to .18). Overall, results from the exploratory factor analysis suggested that there were three factors underlying the data, and the items loaded relatively cleanly onto their hypothesized factors.

A confirmatory factor analysis (CFA) was then conducted on the other subset of the data to confirm the results of the exploratory factor analysis. The variance of the factors was fixed at 1 so that each item's factor loading could be freely estimated, and factors were allowed to correlate. Fit indices suggested acceptable model fit of the three-factor model ($\chi^2(74) = 157.83$, TLI = .92, CFI = .94, RMSEA = .07, AIC = 247.83). We also tested a two-factor model, in which the items for ethnic and racial socialization were loaded onto a single factor ($\chi^2(75) = 246.17$, TLI = .84, CFI = .88, RMSEA = .10, AIC = 334.17). The three factor model provided a superior fit to the data by all five fit indices, indicating that racial and ethnic socialization are indeed separable constructs. Factor loadings for the three-factor model (see Table 5) ranged from .27 to .98, suggesting the items loaded onto their respective factors relatively well.

At times 2 and 3 (see Table 4), adolescents completed the 4-item scale on the Race and Culture questionnaire that measured experiences of discrimination. Items were rated on a 4-point scale ranging from 1 (*definitely true*) to 4 (*definitely false*). Items were reversed coded so that higher scores represented more experiences of discrimination. The scale demonstrated acceptable internal consistency reliabilities, with alphas of .74 across the first and second follow-up assessments.

At time 2 (see Table 4), adolescents completed the 6-item scale on the Race and Culture questionnaire measuring parental engagement in ethnic socialization, which allowed us to assess adolescents' perceptions of parental engagement. They also completed a 4-item scale measuring parental engagement in racial socialization. (At time 3, they completed a shortened version of the

Race and Culture questionnaire, which did not include either of the cultural socialization scales). Items for both scales were rated on a 4-point scale ranging from 1 (*definitely true*) to 4 (*definitely false*). Items were reversed coded so that higher scores represented more parental engagement in ethnic or racial socialization, respectively. The scales demonstrated acceptable internal consistency reliabilities, with an alpha of .68 to .90.

Analyses

Cross-lagged models (see conceptual model in Figure 4) were used to examine the temporal associations between discrimination and antisocial behavior/depression. This design allows us to determine the direction of association between discrimination and psychopathology over time, independent of their preexisting relationships and stabilities over time. The cross-age, within-trait coefficients (i.e., b_{22} , b_{33} , b_{44}) measure the stability of discrimination and psychopathology, respectively, over time. The age-specific correlations (i.e., r_2 , r_3) evaluate the relationship between discrimination and psychopathology at each specific time point. Lastly, the cross-lagged coefficients (i.e., b_{21} , b_{34} , b_{43}) allow us to examine whether discrimination and psychopathology at Times 1 and 2 independently impact each other at Time 3, controlling for the stability of each trait over time. The model was run separately for depression and antisocial behavior. Initial models included the entire sample of internationally, transracially adopted adolescents, adjusting for the non-independence of sibling pairs by modeling them as dyads (actual statistical model is presented in Figure 5). The singleton participants were treated as sibling pairs with missing sibling data.

We then fitted multi-group comparisons to assess how ethnic and racial socialization at Time 2 might moderate these associations. For these analyses, ethnic and racial socialization were each split at their median value, and adolescents were either assigned a “low” or “high”

value for each. As it proved very difficult to parameterize a moderated extension of our initial cross-lagged model given the complexities of the data (e.g., cultural socialization varied both between and within families), we conducted our analyses in three steps. Our first set of analyses restricted the sample to those sibling pairs in which both were experiencing either high or low levels of cultural socialization. To control for the non-independence of the siblings, we again analyzed the sibling pairs as dyads. Our second set of models included only those cases in which an adolescent did not have a sibling who was also internationally, transracially adopted. Finally, we ran the analyses a third time in a separate sub-sample of families, evaluating possible moderation in those families in which siblings were experiencing different levels of parental cultural socialization (i.e., one high and one low). In this case, non-independence between siblings was accommodated directly via the constrained model. Models were fit separately for depression and antisocial behavior, controlling for the effects of adolescent age and sex¹.

To statistically evaluate the presence of moderation, we calculated changes in the chi-square index of fit. Non-significant changes in chi-square indicate that the more restrictive model provides a better fit to the data. Model fit was also evaluated using the Akaike's Information Criterion (AIC; Akaike, 1987). A lower AIC indicates a better fitting model.

¹ To ensure that our decision to collapse across sex was empirically justified, we briefly evaluated biological sex as a

Results

Descriptive data for discrimination, cultural socialization, depression, and antisocial behavior are presented in Table 6. Paired sample t-tests indicated that reports of discrimination significantly increased from Time 2 to Time 3 ($p < .01$). MDD symptom counts significantly increased from Time 1 to Time 2 ($p < .01$) and then stabilized. Symptoms of antisocial behavior ($p < .01$) significantly increased across each time point.

Correlations

Correlations among the variables were computed at each time point (see Table 1). Self-reported experiences of discrimination were quite stable over time ($r = .52, p < .01$). Depression demonstrated moderate levels of stability over time (r s ranged between .16 and .28, $p < .01$), and was positively associated with antisocial behavior at all three time points (r s ranged from .10 to .27, $p < .05$). Antisocial behavior demonstrated moderate-to-high levels of stability over time (r s ranged from .39 to .64, $p < .01$). Experiences of discrimination as reported at Times 2 and 3 were positively, if modestly, associated with depression at all three time points (r s ranged from .07 to .22, $p < .05$). Only the association between discrimination at Time 3 and depression at Time 2 was not significantly greater than zero. Experiences of discrimination at Times 2 and 3 were also positively and more moderately associated with antisocial behavior at all three time points (r s ranged from .15 to .25, $p < .01$). Lastly, parental ethnic and racial socialization were generally not associated with discrimination, or with depression or antisocial behavior. However, ethnic and racial socialization were negatively associated with one another ($r = -.41, p < .01$).

Cross-Lagged Analyses

We used cross-lagged models to evaluate the relationship between discrimination and each of the two forms of psychopathology over time. Although these analyses centered on the dyadic version of the model (i.e., the one based on sibling pairs that adjusts for the non-independence of the siblings; see Figure 5), results are presented via the conceptual model (see Figure 4) to promote ease of interpretation. Path estimates are illustrated in Figure 1. The model provided a good fit to the depression outcome data ($\chi^2(70) = 126.94, p < .01, \text{TLI} = .83, \text{CFI} = .89, \text{RMSEA} = .05, \text{AIC} = 224.94$). Depression evidenced stability over time, both from Time 1 to Time 2 ($\beta = .28, p < .01$), as well as from Time 2 to Time 3 ($\beta = .19, p < .01$). There was also evidence of a high level of stability in discrimination from Time 2 to Time 3 ($\beta = .51, p < .01$). Depression at Times 1 and 2 did not predict discrimination at Times 2 or 3 ($\beta = .05, p = .33; \beta = .01, p = .77$, respectively). However, discrimination at Time 2 did predict depression at Time 3 ($\beta = .10, p = .04$), collectively suggesting that discrimination predicts increased levels of depression, but depression does not predict experiences of discrimination.

The model provided a similarly good fit to the antisocial behavior outcome data ($\chi^2(70) = 128.77, p < .01, \text{TLI} = .88, \text{CFI} = .92, \text{RMSEA} = .056, \text{AIC} = 226.77$) and indicated a high level of stability in antisocial behavior over time ($\beta = .36, p < .01$ from Time 1 to Time 2, $\beta = .65, p < .01$ from Time 2 to Time 3). As above, antisocial behavior at Times 1 and 2 did not predict discrimination at Times 2 or 3 ($\beta = .08, p = .08; \beta = .04, p = .42$, respectively), but discrimination at Time 2 did predict antisocial behavior at Time 3 ($\beta = .08, p = .04$), suggesting that, as with depression, discrimination predicts increased levels of antisocial behavior, but antisocial behavior does not predict experiences of discrimination.

Moderation models

Ethnic Socialization. To test for a moderating effect of ethnic socialization, we first compared sibling pairs in which both siblings reported low levels of ethnic socialization (N=57 pairs) with those pairs in which both siblings reported high levels of ethnic socialization (N=75 pairs). We fitted the model to the depression outcome data both allowing for differences in parameter estimates across high and low levels of ethnic socialization, as well as constraining them to be equal across the groups (see Model 1a in Table 2). Constraining the path estimates to be equal across groups resulted in a non-significant change in chi-square and a lower AIC value, indicating that the constrained or “no ethnic socialization differences” model provided a better fit to the data. Very similar results were obtained for the antisocial behavior outcome data (see Model 1b in Table 2). In short, there was little evidence that parental ethnic socialization moderated the association between experiences of discrimination and adolescent psychopathology outcomes.

To supplement these findings, the model was refitted by re-running analyses on singletons (i.e., those participants without an internationally, transracially adopted sibling; 45 were experiencing low levels of ethnic socialization and 47 were experiencing high levels of socialization). Our results, presented under Models 2a and 2b in Table 2, did not differ significantly from the initial model. The non-significant change in chi-square and lower AIC value indicated that the constrained model provided a better fit to both the depression and the antisocial behavior data.

We next compared the independent sub-sample of sibling pairs (N=50 pairs) in which one sibling reported low levels of ethnic socialization while the other reported high levels of ethnic socialization, a particularly strong test of moderation given that we are comparing youth

within families (i.e., controlling for the many differences between families), rather than between families as above. The model was fitted to the depression and antisocial behavior outcome data, respectively, allowing for differences in parameter estimates across high and low levels of ethnic socialization. As seen in Table 2 (models 3a and 3b), constraining the paths to be equal resulted in a nonsignificant change in chi square. We can thus conclude that, in all models for both outcome variables, path estimates can be constrained to be equal across adolescents experiencing low and high levels of parental ethnic socialization. Such findings strongly suggest that there is no moderating effect of parental ethnic socialization in the relationship between discrimination and adolescent psychopathology.

Racial Socialization. To test for a moderating effect of racial socialization, we first compared sibling pairs in which both siblings reported low levels of racial socialization (N=58 pairs) with those pairs in which both siblings reported high levels of racial socialization (N=51 pairs). For both depression and antisocial behavior, constraining the path estimates to be equal across groups resulted in a significant change in chi-square and a higher AIC value (see Models 1a and 1b in Table 3), indicating that the unconstrained or “racial socialization differences” model provided a better fit to both the depression and antisocial behavior data. Path estimates are presented in Figures 2 and 3, separately across high and low levels of parental racial socialization. As seen there, discrimination at Time 2 predicted depression at Time 3 in adolescents who reported low levels of racial socialization, ($\beta = .25, p < .01$), but not in adolescents who reported high levels of racial socialization ($\beta = .06, p = .64$). Nearly identical results were seen when examining racial socialization as a moderator of associations between discrimination and antisocial behavior outcomes.

As with ethnic socialization, these findings for racial socialization were supplemented by re-running analyses on singletons (i.e., adolescents without an internationally, transracially adopted sibling; 40 were experiencing low levels of racial socialization and 52 were experiencing high levels of socialization). Our results and conclusions remained unchanged (see Models 2a and 2b in Table 3). We next compared the sample of sibling pairs (N=73 pairs) in which one sibling reported low levels of racial socialization while the other reported high levels of racial socialization. As before, constraining the paths to be equal across low and high levels of racial socialization resulted in a significant change in chi square and a higher AIC value for both depression and antisocial behavior (see Models 3a and 3b in Table 3). We can thus conclude that, in all models for both outcomes, constraining path estimates to be equal across adolescents with low and high levels of parental racial socialization resulted in a worsening of model fit, suggesting that parental racial socialization meaningfully alters the relationship between discrimination and depression.

Discussion

The primary goals of the present study were to examine the relationship between discrimination and adolescent psychopathology over time in a sample of internationally, transracially adopted youth, and to explore how parental cultural socialization practices may moderate these relationships. Our findings revealed that, as hypothesized, discrimination at Time 2 predicted increases in depressive and antisocial behavior symptoms at Time 3, even when controlling for stability over time and within-time associations. These findings are consistent with the broader literature examining the effects of discrimination on youth mental health outcomes. Discrimination has been shown in meta-analyses to be significantly associated with depression, anxiety, and externalizing symptoms, among several other negative mental and physical health outcomes (Pascoe & Richman, 2009; Schmitt et al., 2014; Priest et al., 2013). However, less than 20% of the total literature on discrimination and health outcomes (Priest et al., 2013) has focused on children or adolescents. Moreover, the majority of the empirical literature on perceived discrimination and well-being has been cross-sectional in design. Our longitudinal study of adolescents thus contributes valuable information to our understanding of discrimination and mental health. In addition to contributing to the broader literature on discrimination, the current study significantly adds to the very small extant literature on internationally, transracially adopted youth. Prior work suggested that perceived discrimination was cross-sectionally associated with higher levels of distress and behavior problems (Cederblad et al., 1999; Lee, 2010). Our study confirms these results in a large and longitudinal sample, collectively indicating that internationally, transracially adopted youth not only experience discrimination, but that these experiences are associated with higher levels of both depressive symptoms and antisocial behavior.

The second goal of the study was to examine the moderating role of parental cultural socialization practices. We hypothesized that both racial and ethnic socialization would moderate the relationship between experiences of discrimination and psychopathology, such that higher levels of cultural socialization would dampen their associations. While parental ethnic socialization did not moderate these associations as predicted, we did find a moderating effect of parental racial socialization, such that discrimination predicted higher levels of depressive and antisocial behavior symptoms only in those transracially adopted adolescents who also experienced low levels of racial socialization by their parents. Put differently, those experiencing high levels of racial socialization appeared to be protected from the mental health consequences of discrimination.

The latter findings confirm the results from cross-sectional studies indicating that it is beneficial for internationally, transracially adoptive parents to engage in cultural socialization with their children. Specifically, our work highlights the importance of adoptive parents talking openly about race with their transracially-adopted children and preparing them to effectively cope with discrimination. However, our results suggest that higher levels of parental ethnic socialization did not help to buffer the effects of discrimination. One possible explanation for this finding is that while ethnic socialization is clearly beneficial for the development of stronger ethnic identity and sense of ethnic pride (Hughes et al., 2006), it is not sufficient to promote mental health resiliency in the face of discrimination. Parents may need to use more direct approaches that explicitly teach children how to respond to racial discrimination (i.e., racial socialization). It is also possible that while adolescents reported that their parents engaged in ethnic socialization with them, opportunities for cultural socialization and exposure to cultural events were still limited due to the lack of racial and ethnic diversity in the neighborhoods in

which they were living. Interestingly, we found that parental ethnic socialization was negatively associated with racial socialization ($r = -.41, p < .01$), and that parents used significantly higher levels of ethnic socialization than racial socialization ($p < .01$). This suggests that parents may not find racial socialization to be as important, or may feel discomfort at talking about issues of race with their adoptive children. Additionally, it may be difficult for White parents to prepare their children for experiences of racial discrimination when they have not had these experiences themselves (Johnston et al., 2007). However, recent studies have found that placing equal emphasis on both ethnic and racial socialization may be most beneficial for fostering resiliency in the face of discrimination than either approach alone (Dunbar, 2017).

Limitations

The current study had several important limitations. First, because the study of internationally, transracial adoptive families is a relatively new area of research, most measures of socialization and discrimination have not been tested extensively and do not have established reliability or validity in this particular population. The factors that emerged for cultural socialization should be tested again using a confirmatory factor analysis with another sample of internationally, transracially adopted youth.

Another weakness of the study was that we did not have data available at each time point for each of our variables. Our measure of cultural socialization was only collected at Time 2, and therefore we could not examine its stability over time. Cross-sectional cultural socialization research suggests that as children age, parents tend to engage in less ethnic socialization and more racial socialization, and it would be important to verify this pattern using a longitudinal design (Hughes & Chen, 1997; Lee et al., 2006), and to evaluate how it might influence longitudinal associations between experiences of discrimination and youth outcomes.

Additionally, we do not have data on experiences of discrimination at Time 1. Research suggests that children begin to form racial stereotypes as early as age 6, and it would be interesting for future research to examine experiences of discrimination for internationally, transracially adoptive youth during earlier childhood, as well as how discrimination interacts with cultural socialization over time (McKown & Weinstein, 2003; Bigler, Averhart, & Liben, 2003).

Finally, the sample used in this study was not representative of all internationally, transracially adoptive families in the United States. Because the racial makeup of Minnesota was 95% White at the time the adolescents were adopted, it is unclear how experiences of discrimination may differ for internationally, transracially adopted youth in more racially and ethnically diverse regions. In addition, we elected to restrict our sample to only the Korean-American adolescents, as they made up the largest ethnic group in our sample (93%). As a consequence, we cannot be sure if our results would apply to internationally, transracially adopted youth of other racial and ethnic backgrounds, and we did not have sufficient power to test this in our small sample of non-Korean adoptees (N=34 adolescents). When analyses were re-run to include the entire sample (N=490 adolescents; 5.2% Hispanic/Latino, .6% African-American, and .6% other ethnicities) results were (unsurprisingly) identical. As research suggests that there may be differences in the way individuals of different racial and ethnic backgrounds experience discrimination (Pascoe & Smart, 2009), however, future studies should seek to examine the interaction between discrimination and parental cultural socialization with a more diverse sample of adoptive youth.

Despite these limitations, the current study had several strengths. This study is the first to our knowledge to examine the moderating effect of parental cultural socialization in the relationship between discrimination and youth mental health outcomes for internationally,

transracially adopted youth. Furthermore, it uses a robust longitudinal design, overcoming important methodological weaknesses of the existing literature. Extant studies exploring outcomes of discrimination for transracially, internationally adopted youth, as well as those examining parental cultural socialization practices in this population, have thus far relied exclusively on cross-sectional designs, therefore making it challenging to confirm either the direction of the relationship between discrimination and mental health outcomes or the moderating effect of cultural socialization.

In addition to our strong study design, we conducted factor analyses on the broader cultural socialization scale and made use of precise and descriptive terminology to differentiate between the constructs of ethnic and racial socialization. To date, studies have varied considerably in how ethnic and racial socialization are conceptualized and measured. Many have focused solely on one concept or the other, have treated them as a unidimensional construct, or have used the terms *racial*, *ethnic*, and *cultural* interchangeably, making it difficult to integrate findings across studies and understand the specific messages and values that parents are transmitting to their children. Yet another strength of our study was the use of adolescent reports for parental engagement in ethnic and racial socialization. In an observational study, Kim et al. (2012) found that there is a discrepancy between internationally, transracially adopted adolescent and parent reports of cultural socialization, such that parents reported higher engagement in cultural socialization than did their children, perhaps reflecting a tendency to over-report their efforts in this regard. Finally, we separated the domestically and internationally adopted adolescents in our sample, focusing solely on the international adoptees, in order to fully capture the experience of adolescents who differ in both race and country of origin from their parents.

Conclusion

The current study contributes useful information to the broader literature surrounding issues of discrimination and mental health outcomes, utilizing a robust longitudinal design and a large and longitudinal sample of internationally and transracially adopted children and adolescents. It also provides valuable information to parents of internationally, transracially adoptive youth about the risks their children may face, and how they can best prepare them to cope with these experiences. Furthermore, because of the frequent societal perception that discrimination does not occur often and does not cause significant harm (Norton & Sommers, 2011), this study provides strong evidence about the role of discrimination on youth mental health outcomes. Given the substantial increase in international adoption in recent years, the study highlights the important ways in which cultural socialization practices by parents may increase favorable outcomes for internationally, transracially adoptive youth in the face of discrimination.

APPENDIX

Table 1. *Correlations between Discrimination, Cultural Socialization, Depression, and Antisocial Behavior*

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. T2 Discrimination	--									
2. T3 Discrimination	.52**	--								
3. T2 Ethnic Socialization	.04	-.03	--							
4. T2 Racial Socialization	.01	.02	-.41**	--						
5. T1 Depression	.22**	.13**	.08	-.02	--					
6. T2 Depression	.11*	.07	.08	-.05	.28**	--				
7. T3 Depression	.12**	.19**	.03	-.03	.16**	.21**	--			
8. T1 Antisocial Behavior	.15**	.22**	-.02	.07	.19**	.10*	.11*	--		
9. T2 Antisocial Behavior	.22**	.18**	-.01	.01	.27**	.23**	.11*	.39**	--	
10. T3 Antisocial Behavior	.23**	.25**	-.09	.08	.22**	.21**	.23**	.45**	.64**	--

* $p < .05$, ** $p < .01$

Table 2. *Fit Indices and Model Comparisons for Ethnic Socialization Moderation Models of Depression and Antisocial Behavior*

Model		χ^2	<i>df</i>	<i>AIC</i>	<i>RMSEA</i>	$\Delta\chi^2$	<i>df</i>	<i>p</i>
Depression								
Model 1a	Unconstrained	270.80	140	459.80	.09			
	Constrained	322.81	181	436.81	.08	52.01	41	.12
Model 2a	Unconstrained	51.93	36	217.93	.12			
	Constrained	103.94	74	203.94	.11	51.05	38	.08
Model 3a	Unconstrained	63.71	36	227.70	.13			
	Constrained	107.22	74	195.22	.10	43.51	38	.25
Antisocial Behavior								
Model 1b	Unconstrained	187.14	140	387.14	.06			
	Constrained	221.65	181	343.65	.05	34.51	41	.68
Model 2b	Unconstrained	45.65	36	211.65	.09			
	Constrained	78.95	74	168.95	.05	33.29	38	.69
Model 3b	Unconstrained	41.65	36	158.65	.04			
	Constrained	70.11	74	150.11	.06	28.46	38	.87

Note. Model 1 includes sibling pairs in which both siblings reported low levels of ethnic/racial socialization and those pairs in which both siblings reported high levels of ethnic/racial socialization, Model 2 includes only those adolescents who did not have a sibling who was also internationally, transracially adopted, and Model 3 includes siblings in which one adolescent reported low levels of ethnic/racial socialization while the other reported high levels of ethnic/racial socialization.

Table 3. *Fit Indices and Model Comparisons for Racial Socialization Moderation Models of Depression and Antisocial Behavior*

Model		χ^2	df	AIC	RMSEA	$\Delta\chi^2$	df	p
Depression								
Model 1a	Unconstrained	265.65	140	434.65	.09			
	Constrained	325.24	181	461.24	.10	59.59	41	.03
Model 2a	Unconstrained	41.61	36	142.61	.05			
	Constrained	118.90	74	208.90	.10	77.29	38	<.01
Model 3a	Unconstrained	40.09	36	163.61	.05			
	Constrained	96.20	74	208.59	.05	56.11	38	.03
Antisocial Behavior								
Model 1b	Unconstrained	212.27	140	373.27	.07			
	Constrained	270.43	181	408.43	.08	58.16	41	.02
Model 2b	Unconstrained	50.10	36	152.10	.07			
	Constrained	107.60	74	210.60	.09	57.50	38	.02
Model 3b	Unconstrained	34.95	36	196.95	.07			
	Constrained	97.12	74	225.12	.10	62.17	38	.01

Note. Model 1 includes sibling pairs in which both siblings reported low levels of ethnic/racial socialization and those pairs in which both siblings reported high levels of ethnic/racial socialization, Model 2 includes only those adolescents who did not have a sibling who was also internationally, transracially adopted, and Model 3 includes siblings in which one adolescent reported low levels of ethnic/racial socialization while the other reported high levels of ethnic/racial socialization.

Table 4. *Sample Sizes, Ages, and Measures across Time Points*

	Time 1	Time 2	Time 3
<i>N</i> (<i>N</i> families)	456 (274)	456 (274)	442 (260)
Age			
<i>M</i>	14.91	18.34	22.34
<i>SD</i>	1.89	2.13	1.83
Discrimination			
<i>N</i>	-	456	388
Ethnic Socialization			
<i>N</i>	-	455	-
Racial Socialization			
<i>N</i>	-	455	-
Depressive Symptoms			
<i>N</i>	455	456	437
Antisocial Behavior Symptoms			
<i>N</i>	438	365	410

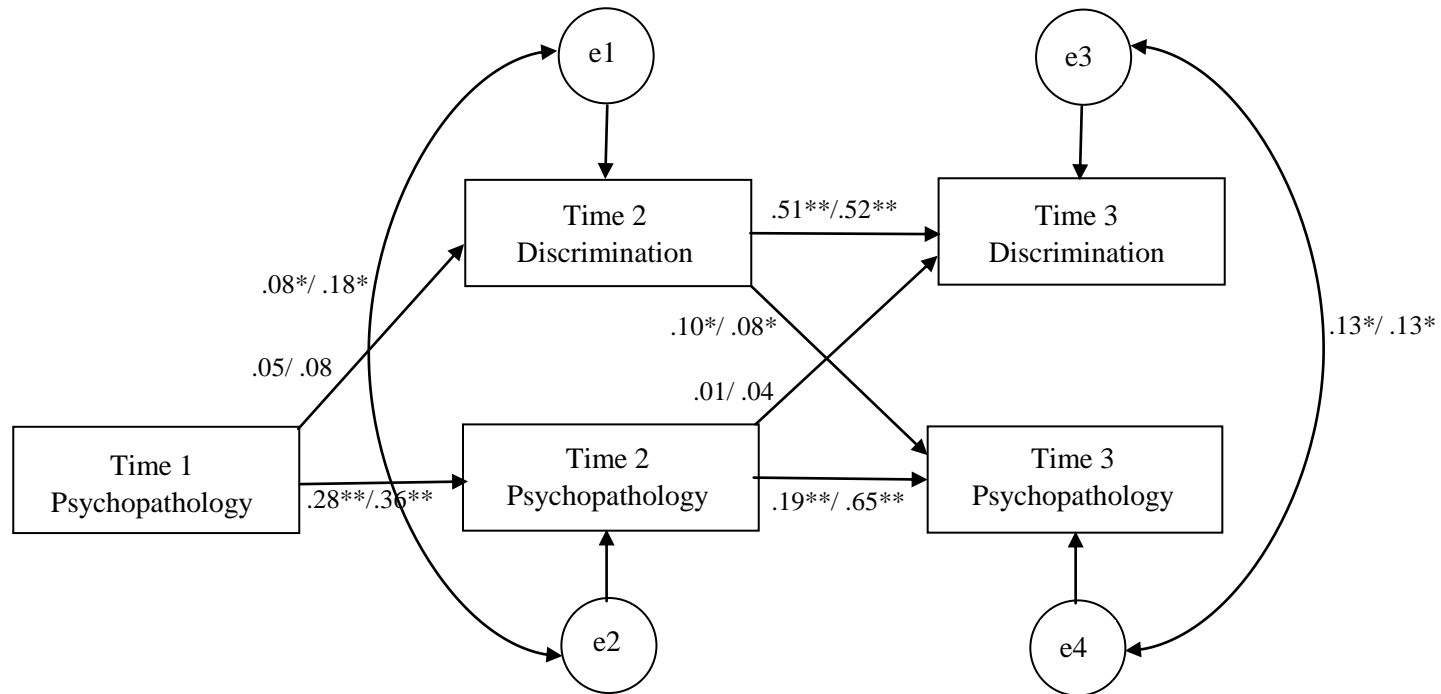
Table 5. *Items Comprising the Race and Culture Questionnaire*

Subscale	CFA Factor Loadings	<i>p</i>
Discrimination		
1. I feel unaccepted by others because of my race.	.27	<.001
2. I've been called names because of my race.	.87	<.001
3. I've been made fun of because of my race.	.98	<.001
4. I feel like it's harder to date some people because of my race.	.27	<.001
Ethnic Socialization by Parents		
1. My parent(s) try to help me find out about my own racial group, such as its history, traditions, and customs.	.82	<.001
2. My parent(s) hardly ever encourage me to participate in cultural practices of my own racial group, like eating food, listening to music, or celebrating holidays.	.84	<.001
3. My parent(s) try to help me meet people from my own race so I can learn more about it.	.70	<.001
4. My parent(s) try to participate in cultural practices of my own racial group, like eating food, listening to music, or celebrating holidays.	.80	<.001
5. My parent(s) try to find out about my own racial group, such as its history, traditions, and customs.	.88	<.001
6. My parent(s) try to meet people from my own race so they can learn more about it.	.90	<.001
Racial Socialization by Parents		
1. I feel comfortable talking about racial issues with my parent(s).	.65	<.001
2. If someone made fun of me because of my race, I would feel comfortable telling my parent(s) about it.	.47	<.001
3. My parent(s) have talked with me about how to respond to racial taunts.	.49	<.001
4. My parent(s) don't talk with me about my racial background.	.76	<.001

Table 6. *Descriptive Statistics for Discrimination, Cultural Socialization, Depression, and Antisocial Behavior over Time*

Variable	Time 1				Time 2				Time 3			
	<i>M</i>	<i>SD</i>	Min	Max	<i>M</i>	<i>SD</i>	Min	Max	<i>M</i>	<i>SD</i>	Min	Max
Discrimination	-	-	-	-	9.22	2.71	4	16	9.96	2.57	4	15
Ethnic Socialization	-	-	-	-	16.67	5.04	6	24	-	-	-	-
Racial Socialization	-	-	-	-	7.79	2.52	4	16	-	-	-	-
Depression	.60	1.69	0	9	1.37	2.55	0	9	1.62	2.82	0	9
Antisocial Behavior	.42	.85	0	5.5	.93	1.30	0	6	1.32	1.43	0	7

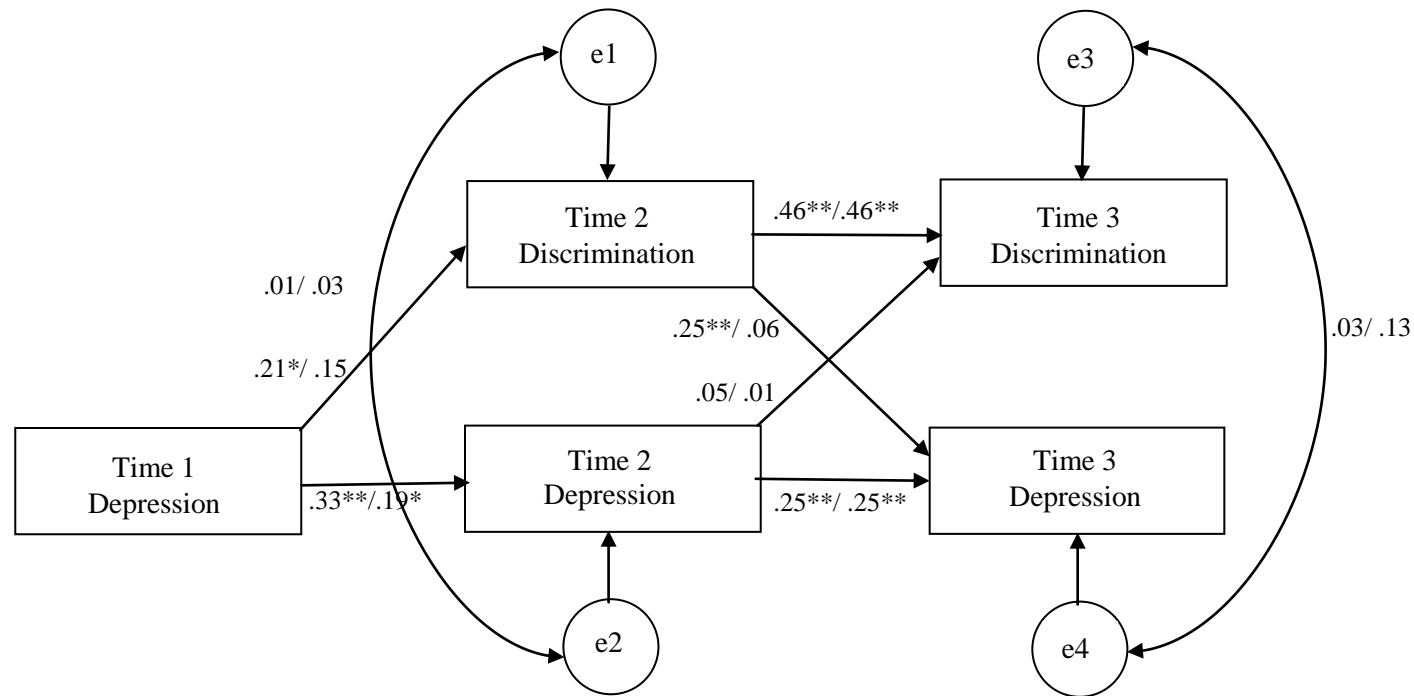
Figure 1. *Cross-Lagged Modeling Results of the Associations between Discrimination and Depression/ Antisocial Behavior over Time*



* $p < .05$, ** $p < .01$

Note. The first coefficient represents standardized path estimates for depression, while the second coefficient represents standardized path estimates for antisocial behavior.

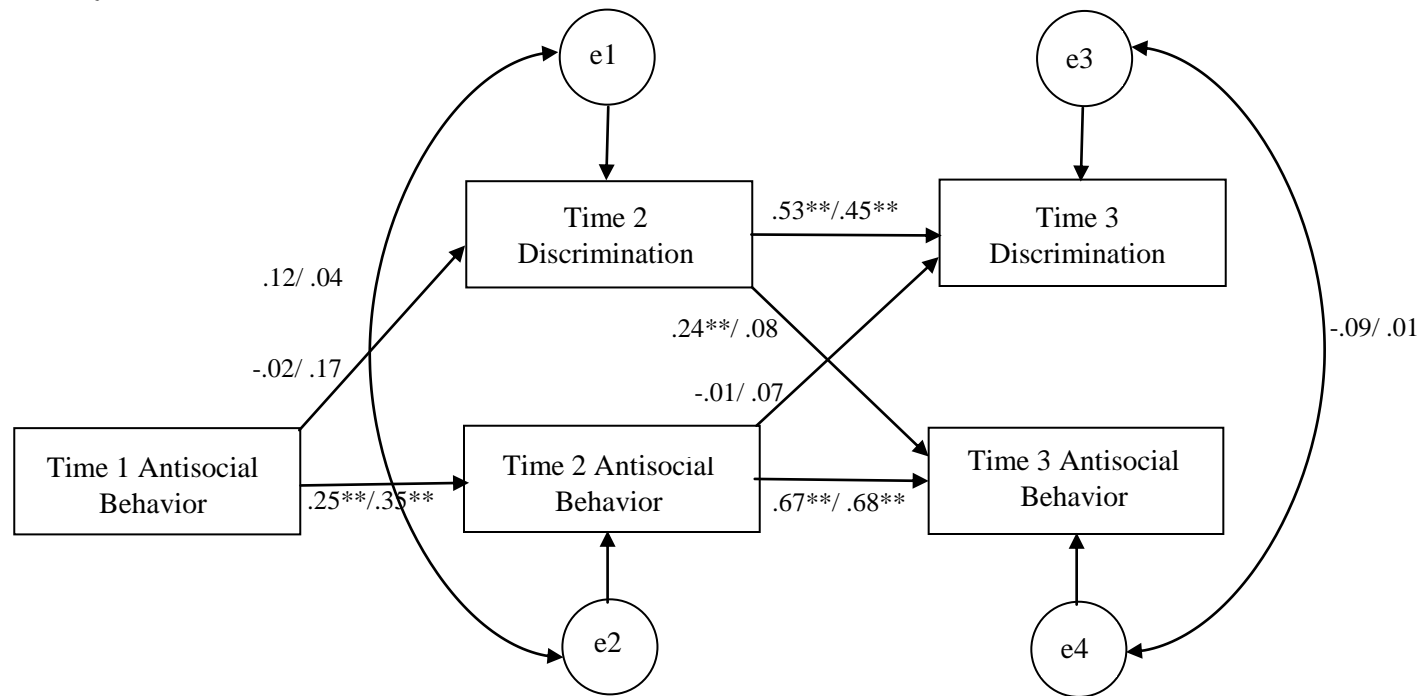
Figure 2. *Moderation of the Cross-Lagged Associations between Discrimination and Depression over Time by Racial Socialization*



* $p < .05$, ** $p < .01$

Note. The first coefficient represents standardized path estimates for sibling pairs with low levels of parental racial socialization, while the second coefficient represents standardized path estimates for sibling pairs with high levels of parental racial socialization.

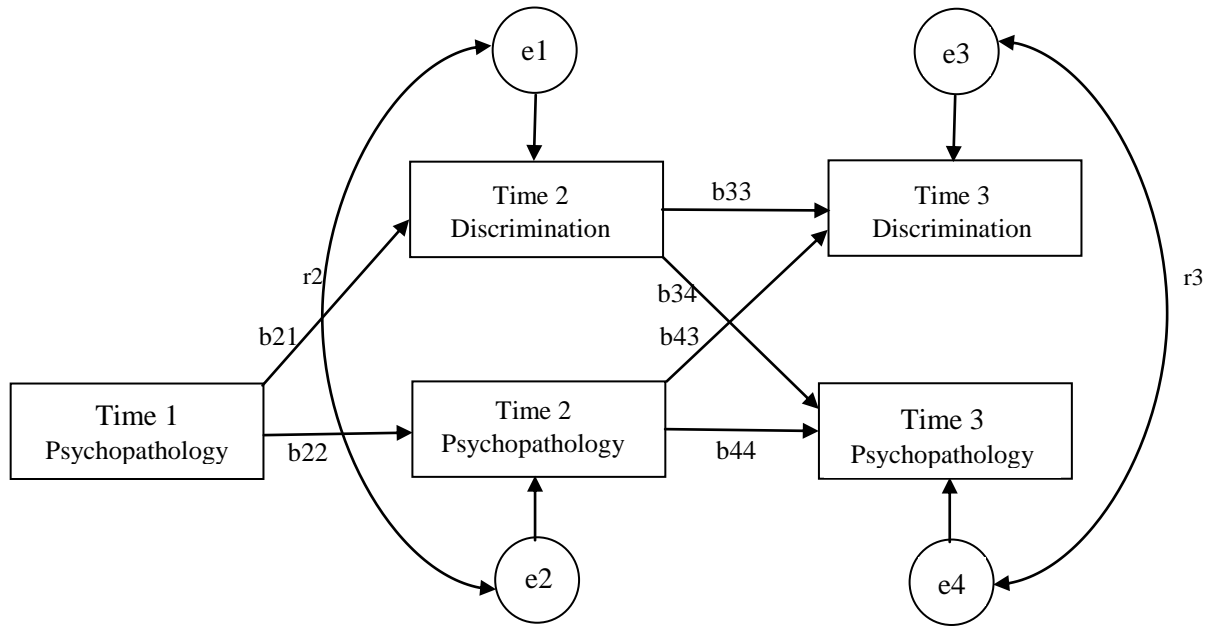
Figure 3. *Moderation of the Cross-Lagged Associations between Discrimination and Antisocial Behavior over Time by Racial Socialization*



* $p < .05$, ** $p < .01$

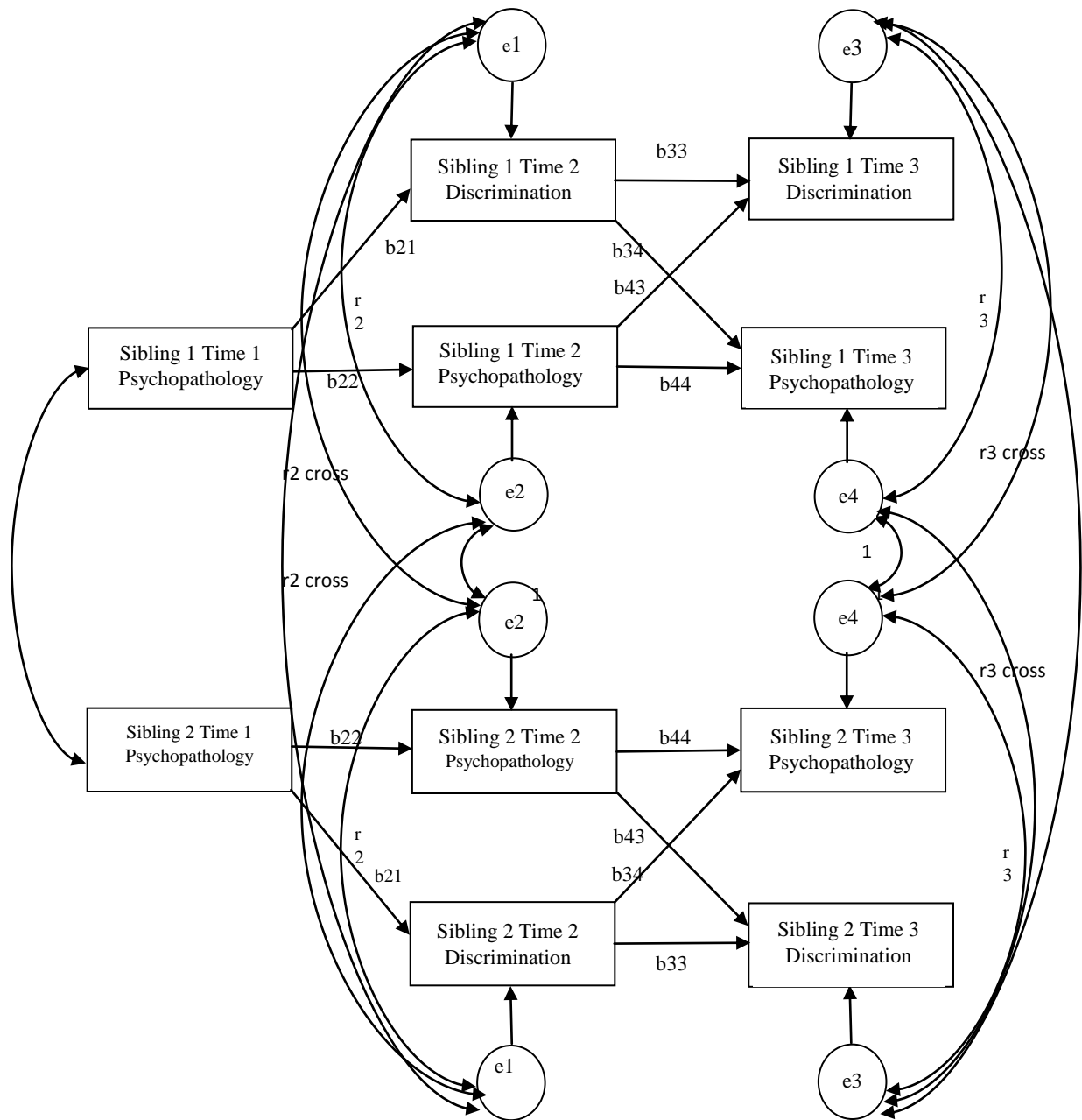
Note. The first coefficient represents standardized path estimates for sibling pairs with low levels of parental racial socialization, while the second coefficient represents standardized path estimates for sibling pairs with high levels of parental racial socialization.

Figure 4. *Cross-Lagged Model of the Associations between Discrimination and Depression/ Antisocial Behavior over Time*



Note. Cross-lagged model of the associations between discrimination and depression/ antisocial behavior scores across three time points. Cross-age paths (i.e., partial regression coefficients) are indicated by a “b” followed by 2 numerals. Within-age correlations are indicated by an “r” followed by a single numeral. The residual variance in discrimination and depression/antisocial behavior at times 2 and 3 are represented by an “e” followed by a single numeral.

Figure 5. *Dyadic Cross-Lagged Model of the Associations between Discrimination and Depression/ Antisocial Behavior over Time*



Note. Dyadic cross-lagged model of the associations between discrimination and depression/ antisocial behavior scores across three time points. Cross-age paths, within-age correlations, and residual variances are constrained to be equal across the siblings.

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