THE ROLE OF EXPLANATORY STYLE AND NEGATIVE LIFE EVENTS IN DEPRESSION: A CROSS-SECTIONAL STUDY WITH YOUTH FROM A NORTH AMERICAN PLAINS RESERVATION

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Abstract: In a cross-sectional study, we examined the role of explanatory styles and negative life events in the depressive experiences of AI youth. Ninety-three AI youth (49% female, ages 11-14 years) completed surveys assessing for explanatory style, negative life events, and depressive symptoms. Path analyses indicated that both the occurrence of negative life events within the past 6 months and a pessimistic explanatory style predicted more depressive symptoms. However, a moderation path model provided a superior fit to the data, indicating that the occurrence of negative life events was more strongly associated with depressive symptoms for those AI youth with a more pessimistic explanatory style. Findings are discussed in terms of potential interventions that can promote the well-being of this understudied and underserved population.

The experience of a depressive episode in youth appears to have devastating impacts, disrupting such basic developmental processes as self-concept formation (Cole, Martin, Peeke, Seroczynski, & Hoffman, 1998), social competence (Lewinsohn & Essau, 2002), and academic achievement (Lewinsohn et al., 1994). Youth depression also has serious long-term consequences, and is ultimately related to poor outcomes in adulthood, including increased negative life events, fewer economic resources, increased child care burdens, lower educational attainment, and chronic adult depression (e.g., Kessler & Magee, 1994; Lewinsohn, Rohde, Klein, & Seeley, 1999). In short, youth depression severely disrupts life paths.

Scholars and researchers interested in the well-being of American Indian (AI) youth have likewise emphasized the potential disruptive impact of depression (Manson, 2001). Compared to depression research with other minority populations, very little is known about etiological factors contributing to depression in AI youth (Whitbeck, McMorris, Hoyt, Stubben, & LaFromboise, 2002). That is, despite the oft-made observation that depression is a serious mental health issue in AI communities (Whitbeck et al., 2002), we know very little about the phenomenon (Manson, 2001; O'Nell, 1996; Whitbeck et al., 2002). Even data on the basic epidemiology of depression

in AI communities are open to debate, with some suggesting higher (Kinzie et al., 1992; Manson, 2001), some lower (Beals et al., 2005), and others similar (Whitbeck, Mansoo, Johnson, Hoyt, & Walls, 2008) prevalence rates compared to those found in other populations. Further, there has been almost no empirical work on the factors contributing to depression among AIs (Manson, 2001; for exception, see Whitbeck et al., 2002), particularly when it comes to understanding developmental models of depression among AI youth, which are virtually nonexistent (Scott et al., 2008).

Explanatory Style and Youth Depression

The present study investigates one potential etiological factor for depression in AI youth: explanatory style. Explanatory style refers to the way in which youth explain the causes of negative and positive life events (Seligman, 1990). Specifically, youth who possess a pessimistic explanatory style, in which positive events are explained as due to external, unstable, and specific causes and negative events as due to internal, stable, and global causes, are thought to be more prone to depressive experiences (Lewis & Waschbusch, 2008; Seligman et al., 1984; Thompson, Kaslow, Weiss, & Nolen-Hoeksema, 1998). For instance, a person possessing such a pessimistic explanatory style might interpret receiving a good grade as being due to luck but a bad grade as due to being stupid. Attributing the positive outcome (i.e., good grade) to luck represents an external (luck is a characteristic outside of me), unstable (I may not be lucky the next time), and specific (my luck was specific to this one event) explanation. In contrast, attributing the negative outcome (i.e., bad grade) to stupidity represents an internal (i.e., stupidity is a characteristic *in me*), stable (i.e., I will *always* be stupid) and global (i.e., stupidity will affect *many* outcomes) attribution.

Empirically, there have been a number of studies linking explanatory style to an increased risk of depression in children and adolescents (Jacobs, Reinecke, Gollan, & Kane, 2008). However, some evidence suggests that younger children (i.e., fourth graders) may not yet have developed an explanatory style, and attributing negative events to internal, global, and stable causes may serve to mediate the effects of those negative events on depression (Gibb & Alloy, 2006). Even by the fifth grade, however, children appear to have developed explanatory styles that function to moderate the relationship between negative life events and depressive symptoms (Gibb & Alloy, 2006).

Possible Influence of Explanatory Style on Depression in AI Youth

We focused on explanatory style in the present study due to themes expressed in interviews we conducted with tribal community members from the reservation in which this study was conducted. The confidentiality of the tribe is considered as important as the confidentiality of the individual in AI communities (Norton & Manson, 1996). Therefore, the tribe that worked with us on this study is described in general terms (i.e., Northern Plains).

AI youth growing up on reservations such as the one represented in this study, which is located in a very rural region of the Northern Plains, are often embedded within socioeconomic contexts of poverty and instability. Indeed, while the national poverty rate is approximately 10% for European American families with children, it is about three times this rate for AI families with children, and AI families living on reservations are at the greatest risk of being poor (U.S. Census Bureau, 2009). Similarly, although national unemployment has risen recently to over 9%, unemployment rates on AI reservations have consistently reached 50% or higher (U.S. Census Bureau, 2009); the unemployment rate on this reservation is 80%. Much recent empirical work has demonstrated that such economic deprivation is likely not without costs to the mental health of AI youth (Evans, 2004). For example, other concerns associated with such a lack of resources include low educational attainment, substance use, incarceration, child abuse, teen pregnancy, and school dropout (Evans, 2004). However, owing to their traditional cultural values and practices, AI communities also offer AI youth unique resources for optimal development (Whitbeck et al., 2002) which may promote more optimistic explanatory styles that help buffer the otherwise depressive impact of negative life events.

In the interviews we conducted with adult tribal community members, we asked them to identify the most significant challenges and problems confronted by youth living on the reservation. For the present purposes, two relevant themes emerged. First, not only did tribal community members view depression as a significant problem and challenge confronted by their youth, but they commonly viewed other problems experienced by their youth—academic underachievement, substance use, conduct/oppositional behavior—as due to depression. Second, in their open-ended descriptions of depression, tribal community members described what resembled a hopelessness subtype of depression (Abramson, Metalsky, & Alloy, 1989) in which explanatory style is thought to have an important contributory role. That is, they described the depression experienced by their youth as a fatalistic state which consisted of such symptoms of hopelessness as sad affect, apathy, suicidal thoughts, anhedonia, lowered self-esteem, and retarded initiation of voluntary responses. In discussions with elders and other tribal community members involved in recording the language of the tribe most represented in this study, they identified a Native word that appeared to closely resemble the meaning of the DSM-IV depression construct. Although we will not identity the actual word to protect the confidentiality of the tribe, its meaning translated into "always feeling sad."

One of the main variables thought to lead to this type of depression is a pessimistic explanatory style (Abramson et al., 1989). Based on these interviews, therefore, we suspected that a pessimistic explanatory style may be related to the depressive experiences of the AI youth on the reservation in which we conducted our research.

However, an emerging literature on culture and attributions suggests that the function and effects of explanatory style can differ across cultural contexts (Joseph & Gray, 2010; Rose, Endo, Windschitl, & Suls, 2008). Although a number of studies have found that, for North American individualistic cultures, a positive attributional style serves an important role of enhancing and maintaining self-esteem and promoting mental health (Abramson et al., 1989; Taylor & Brown, 1988), members of more collectivistic cultures are less apt to show this bias (Rose et al., 2008). Further, predictors of emotional well-being can vary in different cultural contexts (Kitayama & Markus, 2000). For instance, in European American cultural contexts, which emphasize autonomy and independence, adopting a more positive self-view is associated with affective well-being. However, in East Asian and Japanese cultural contexts, which emphasize social harmony and interdependence, the relationship between positive self-views and affective well-being may not be as strong (Kitayama & Markus, 2000). Given that AI communities have been found to be more collectivistic (Fryberg & Markus, 2003), it is possible that AIs do not exhibit as strong as a relationship between explanatory style and depression. However, we are aware of no empirical studies that have examined the potential relationship between explanatory style and depression in an AI population.

Present Study

As far as we know, this is the first empirical investigation of the relationship among negative life events, explanatory style, and depressive symptoms in a sample of AI youth. We administered self-report measures of negative life events, explanatory style, and depressive symptoms to a sample of fifth- through eighth-grade AI children from a Northern Plains reservation. For these youth, we expected that the relationship between negative life events and depressive symptoms would depend on the individual's explanatory style. For youth who possessed a highly pessimistic explanatory style (i.e., they attributed positive events to external, unstable, and specific causes and negative events to internal, stable, and global causes), we expected that the experience of negative life events would be associated with higher levels of depressive symptoms. In contrast, we expected that youth who possessed an optimistic explanatory style (i.e., they attributed positive events to internal, stable, and global causes and negative events to external, unstable, and specific causes) might evidence greater resiliency and report lower levels of depressive symptoms in the context of negative life events. However, based on social psychology literature showing cultural differences in attributional patterns, we acknowledged that this relationship might differ for AI youth.

METHOD

Participants

Participants were 93 AI youth (47 boys and 46 girls) from one school on an AI reservation in the Northern Plains of the United States. Twenty-seven of these participants were in fifth grade, 24 in sixth grade, 19 in seventh grade, and 23 in eighth grade. All students in grades five through eight were eligible to participate. However, approximately 2% of eligible students did not assent or did not receive parental/guardian consent and, therefore, did not participate.

Measures

Recent Negative Life Events Inventory (NLE)

We administered a negative life event measure developed specifically for AI adolescents that assessed specific negative life events occurring in the past 6 months (Novins, Beals, Roberts, & Manson, 1999). This measure contains 11 items ranging from relatively minor stressors (e.g., "breaking up with a girlfriend or boyfriend"), to chronic strains (e.g., "living with someone who has an alcohol problem"), to severe events (e.g., "suicide or death of a family member or close friend"). Participants checked either yes or no, indicating whether the event had occurred in the past 6 months.

Children's Depression Inventory (CDI)

The CDI was administered to assess depressive symptoms. The CDI is a 27-item questionnaire that measures the cognitive, affective, and behavioral symptoms of depression. Each of the items on the CDI is presented in a multiple-choice format, ranging from 0 to 2 in terms of intensity (i.e., 0 = *I am sad once in a while*, 1 = *I am sad many times*, 2 = *I am sad all the time*). Participants are asked to indicate which symptom has been most true for them during the past two weeks. Items are summed to yield a total score, with higher numbers indicating higher levels of depressive symptoms.

The CDI is a widely used self-report measure of childhood depression, and it possesses adequate psychometric properties (Saylor, Finch, Spirito, & Bennett, 1984). Further, the CDI has been shown to possess good psychometric properties with similar samples of AI youth from a Northern Plains tribe (Hamill, Scott, Dearing, & Pepper, 2009; Scott & Dearing, 2012). In the present study, the scale showed good internal consistency ($\alpha = .88$).

Children's Attributional Style Questionnaire-Revised (CASQ-R)

To assess the explanatory styles that youth use to explain positive and negative events, we used the CASQ-R (Thompson et al., 1998). The instrument contains 24 items with 12 positive (e.g., "You get an 'A' on a test") and 12 negative (e.g., "A team that you are on loses a game") events. For

each item, there are two response options (e.g., "I am smart" vs. "I am good in the subject that the test was in," or "The team members don't help each other when they play together" vs. "That day the team members didn't help each other") which map onto three dimensions of causality, namely, the internal-external, stable-unstable, and global-specific dimensions.

As recommended for scoring the CASQ-R (Thompson et al., 1998; N. Kaslow, personal communication, February 7, 2012), we first calculated negative and positive composite scores. The negative composite score is derived by summing the scores on the internality, stability, and globality scales for negative events. In contrast, the positive composite score is derived by summing the scores on the internality, stability, and globality scales for positive events. Then we calculated an overall composite score, in which the negative composite score is subtracted from the positive composite score. A lower overall composite score therefore represents a more depressive explanatory style. In the present study, the mean for the overall composite score was 1.33 (SD = 12.09). Cronbach's alphas for the positive and negative composite scales comprising the overall composite scale were .45 and .50, respectively. Although this was the first instance in which the CASQ has been used with an AI population and these alphas are low, they are not unexpected given the dichotomous response format of the CASQ-R, and are similar to reported alphas in other studies using the scale (Lewis & Waschbusch, 2008; Thompson et al., 1998).

Procedure

This study was done as part of a larger project to identify factors contributing to depression in Native youth in this community (see Hamill et al., 2009; Scott & Dearing, 2012; Scott et al., 2008). The overall purpose of the project, which was approved by and developed in consultation with tribal representatives and the school board (which was composed entirely of tribal community members), was to develop a group intervention designed to lower depression risk and increase well-being (Scott & Clarke, 2006).

The study was conducted in compliance with the Institutional Review Board of the University of Wyoming and with both the administration at the school where the study was done, which included a tribal representative who was consulted on all research conducted in the school, and with the school board noted above. In addition, we solicited feedback from a tribal representative regarding interpretation of the results and presentation of the findings, as well as for a draft of this publication.

We administered surveys containing the above measures in September of the school year. Prior to administration, we followed a passive informed consent procedure with parents and guardians. Specifically, four weeks prior to the study, we mailed a description of the study and its purposes to the parents and guardians of all students attending fifth through eighth grades. The parents/guardians had an opportunity to reject consent for their children's participation by phoning

a specific number either at the school or at the office of the third author of this paper. In addition, we followed an active informed assent procedure for students, in which they had an opportunity to decline participation after the study was described. Two percent of potential participants chose not to participate in this particular wave of data collection.

Graduate students enrolled in a doctoral clinical program administered the surveys in the students' classrooms. In addition, teachers and school staff responsible for each classroom were present to assist with supervision. Students completed the measures in classes ranging from 10 to 30 students.

Statistical Analyses

Path analysis with Mplus (Muthén & Muthén, 2007) was used to test the hypothesized model in which negative life events, explanatory styles, and the interaction between negative life events and explanatory styles predicted depressive symptoms. For explanatory styles, our main analysis used the overall composite scale score, as it takes into account the relative difference between optimistic and pessimistic explanatory styles. Given the cross-sectional nature of our data, several alternative path models were also tested to provide fit comparisons with the hypothesized model.

Missing and multivariate nonnormal data

Across all youth, 68% ($n = 63$) had complete data. Five percent ($n = 5$) of participants had missing data on the NLE. Sixteen percent ($n = 15$) of participants had data missing on the CDI. Twelve percent ($n = 10$) of participants had missing data on the CASQ-R overall composite scale. Maximum likelihood estimation is the recommended alternative to discarding participants who are missing data (Schafer & Graham, 2002). In addition, however, our data also violated multivariate assumptions of normality. Therefore, we used the robust maximum likelihood estimator (MLR; Muthén & Muthén, 2007), as it is the recommended estimator for dealing with both issues of missing data and multivariate nonnormality (Byrne, 2012).

RESULTS

Mean scores and standard deviations (*SD*) were calculated for NLE, CDI, and CASQ-R (see Table 1). We adopted a .05 level for determining statistical significance throughout our analyses. Independent sample *t*-tests indicated that there were no significant differences among these scores for boys and girls in our sample.

Table 1
Range Means and Standard Deviations for Recent Negative Life Events,
Children's Attributional Style Questionnaire-Revised, and Children's Depression Inventory[a]

Measure	Range	Mean	SD[b]
Negative Life Events	.00-11.00	3.79	2.46
Children's Attributional Style Questionnaire-Revised			
Positive Composite	2.00-12.00	6.44	2.12
Negative Composite	.00-9.00	3.81	2.22
Overall Composite	-6.00-11.00	2.64	3.74
Children's Depression Inventory	.00-28.00	8.27	7.96

[a] *N*s ranged from 78-88 due to missing data. [b] *SD* = standard deviation.

Table 2 shows the percentages of participants who reported the occurrence of 11 different negative life events within the past 6 months. Examining this table, it is apparent that a high percentage of AI youth reported experiencing relatively severe negative events. For instance, approximately one-half of the participants reported that a family member or close friend had either died or been put in jail in the past 6 months.

Table 2
AI Youth who Reported Negative Life Event Occurrence in Past 6 Months[a]

Negative Life Event	Percent Reporting
Family member/close friend died	55%
Someone close had alcohol/drug problem	50%
Family member/close friend put in jail	47%
Had serious argument with friend/friends	28%
Close friend/family member attempted suicide but survived	23%
Other people gossiped/spread rumors about you	22%
Parent/guardian lost job or could not find wanted job	19%
Was in car wreck in which someone was seriously hurt	19%
Broke up with girlfriend/boyfriend	17%
Experienced verbal abuse by adult family members on regular basis	11%
Attacked/beaten up badly in fight	5%

[a] Table based on AI youth who had complete data on the Negative Life Event measure (*n* = 88)

Table 3 provides correlations between study variables for participants with complete data. The occurrence of negative life events in the past 6 months was positively correlated with depression. In addition, all CASQ-R composite scale scores were correlated in the expected directions. Specifically, the positive composite scale was negatively correlated with depressive symptoms, and the negative composite scale was positively correlated with depressive symptoms, although the latter correlation was not statistically significant ($p = .07$). Further, the overall composite scale, in which higher scores represent a more optimistic explanatory style, was significantly negatively correlated with depressive symptoms. Neither gender nor grade level was correlated with depressive symptoms. In short, AI youth who reported a more optimistic explanatory style tended to report fewer depressive symptoms.

Table 3
Correlations between Gender, Grade Level, Negative Life Events, Explanatory Style Composite Scales, and Depression[a]

Variables							
	Gender (1 = Male, 2 = Female)	Grade Level	Negative Life Events	Positive Composite CASQ-R	Negative Composite CASQ-R	Overall Composite CASQ-R	CDI (Depressive Symptoms)
Gender (1 = Male, 2 = Female)							
Grade Level	-.05						
Negative Life Events	-.01	-.17					
Positive Composite CASQ-R	-.05	-.05	-.01				
Negative Composite CASQ-R	.16	.08	-.01	-.47**			
Overall Composite CASQ-R	-.13	-.08	.00	.85[a]	-.87[a]		
CDI (Depressive Symptoms)	.09	-.11	.43**	-.33**	.23	-.33*	

* $p < .05$ (2-tailed), ** $p < .001$ (2-tailed)
[a] Correlations are expected given overall composite scale = positive composite - negative composite

Hypothesized path model

Before examining our hypothesized moderation model, we first estimated a main effect path model in which negative life events and explanatory style predicted depressive symptoms. Overall, this main effect model provided a very good fit to the data (χ^2 = 5.81, df = 7, p = .56; RMSEA = 0.0, 90% CI = .0 - .11; CFI = 1.0, TLI = 1.07; SRMR = .06). We then tested our hypothesized moderation model, which included both the main effect predictors in the initial model and the interaction between them. As predicted, the interaction between negative life events and explanatory style was significant (β = -.27; p = .02). Moreover, compared with the main effects model, the hypothesized moderation model improved the overall fit ($\chi2$ = 1.36. df = 4, p = .85; RMSEA = 0.0, 90% CI = .0 - .09; CFI = 1.0; TLI = 1.26; SRMR = .04).

Figure 1 shows the results of the moderation path model. Both negative life events and the overall composite scale of the CASQ-R were significant predictors of depressive symptoms. As indicated by standardized coefficients, an increase in negative life events of one SD predicted a one-half SD (β = .51) increase in depressive symptoms. Further, an increase of one SD in optimistic explanatory style predicted an increase of over one-third SD (β = -.39) in depressive symptoms.

Figure 1
Hypothesized Moderation Path Model Showing the Relationship between Negative Life Events, Optimistic Explanatory Style, and Depressive Experiences
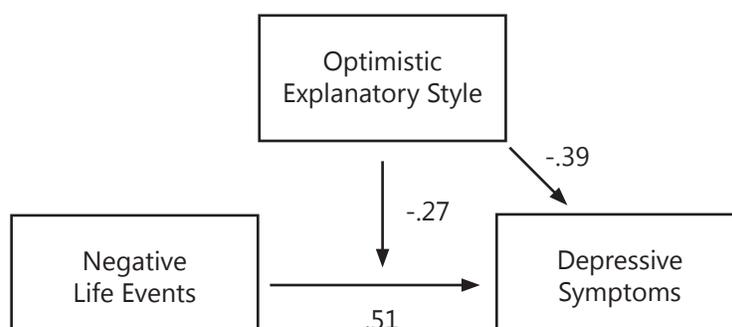
To examine the nature of the interaction between negative life events and an optimistic explanatory style in predicting depression, we mean-centered the independent variables and then plotted overall composite values that were 1 SD above and 1 SD below the mean set of values for both negative life events and overall composite attributional style variables (Aiken & West, 1991). As Figure 2 indicates, the occurrence of negative life events in the past 6 months was more strongly associated with depressive symptoms for those with a more pessimistic explanatory style. For individuals with an optimistic attributional style, there was a minimal relationship between the

occurrence of negative life events and depressive symptoms. In short, AI youth who were able to attribute internal, global, and stable causes to hypothetical positive events and external, specific and unstable causes to hypothetical negative events, were more resilient to depressive experiences.

Figure 2
Interaction Effects of Recent Negative Life Events and Overall Composite Explanatory Style
on Depressive Symptoms (CDI)
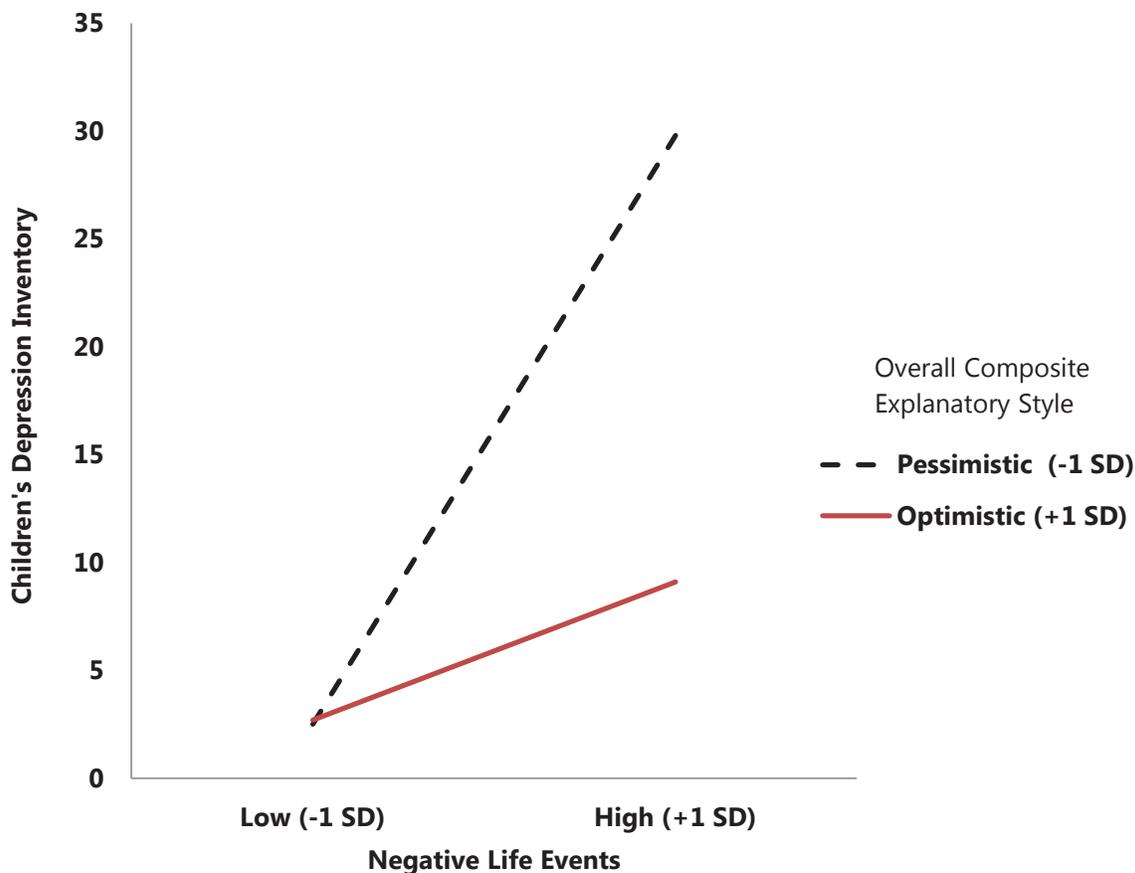
Alternative path models

In order to compare and further evaluate our hypothesized path model, we also tested several alternative path models. First, we tested a meditational model in which explanatory style mediated the relationship between negative life events and depressive symptoms. This first alternative model provided a very poor fit to the data ($\chi2 = 149.60$, df = 3, $p = .00$; RMSEA = .47, 90% CI = .40 - .54; CFI =.03; TLI = -.39; SRMR = .21). Further, the indirect effect from negative life events to depression via explanatory style was not significant ($p = .62$).

Second, we tested a reversed main effects model in which explanatory style was the dependent variable and negative life events and depression were the predictors. Although this model provided a good fit to the data, it did not perform as well as the hypothesized moderation model ($\chi2 = 5.81$, df = 3, p = .56; RMSEA = .00, 90% CI = .00 - .11; CFI =1.0; TLI = 1.07; SRMR = .06).

We also separated the sample into younger (grades five and six) and older (grades seven and eight) children and retested the meditational models, which again performed very poorly, although sample size minimized our ability to adequately test them. In short, our best performing model was one in which AI youth who possessed a more optimistic explanatory style exhibited greater resiliency to depressive experiences in the context of stressful life events.

DISCUSSION

Based on interviews with tribal community members, we suspected that, for AI youth in the present study, a pessimistic explanatory style in the context of negative life events would be associated with depressive symptoms. Consistent with our hypotheses, the relationship between the occurrence of negative life events and depressive symptoms depended on explanatory style. Specifically, AI youth with a relatively greater tendency to use internal, global, and stable explanations for negative than for positive hypothetical events reported more depressive symptoms. Stated more positively, those AI youth with a more optimistic explanatory style were more resilient to the experience of depression in the context of negative life events. This finding did not vary for either gender or age.

The hopelessness theory of depression suggests that certain individuals have a cognitive vulnerability, which, when they encounter negative life events, may lead to a sense of hopelessness and a particular subtype of depression characterized by strong feelings of sadness, anhedonia, lowered self-esteem, retarded initiation of voluntary responses, and suicidal thoughts (Abramson et al., 1989). This phenomenon has been studied frequently among adult populations, and, although researchers have sometimes questioned the appropriateness of adult models of depression risk for youth, several studies show evidence for this theory among European American adolescents (Garber, Keiley, & Martin, 2002; Hankin, Abramson, & Siler, 2001; Prinstein & Aikins, 2004). This study contributes to the literature by examining the role of a pessimistic explanatory style among a rarely studied sample of AI youth, while highlighting the resiliency of AI youth who possess an optimistic explanatory style.

When we contrasted our hypothesized model with alternative models, our hypothesized moderation model performed best. In particular, we examined an alternative meditational model in which explanatory style mediated the relationship between negative life events and depressive symptoms. This latter model led to a very poor fit with our data, suggesting that, by fifth grade,

some AI youth have in fact developed explanatory styles with either protective (i.e., optimistic) or deleterious (i.e., pessimistic) effects for depression. Given that our youngest participants were in fifth grade, our findings are consistent with those of other researchers (e.g., Gibb & Alloy, 2006) who have found that explanatory style functions as a moderating variable by this grade level.

Our findings have implications for the development of AI youth depression prevention programs. In general, there are few prevention and intervention programs designed specifically for AI youth, and the available programs do not explicitly target explanatory styles (LaFromboise, 1996). Although not developed for AI youth, the Penn Resiliency Program (PRP; Gillham, Jaycox, Reivich, Seligman, & Silver, 1990) does in fact teach youth to challenge pessimistic explanatory styles by using cognitive restructuring skills. Specifically, PRP targets global, stable, and internal explanations for negative life events by teaching children to evaluate and challenge the accuracy of their beliefs and to generate alternative interpretations. Given the findings in the present study, a PRP program modified to fit the unique cultural contexts of AI youth offers a promising approach worthy of future investigation with AI youth.

Several limitations of the current investigation require note. First, one key limitation of the present study was the nature of the cross-sectional design. A goal for future research should be to conduct longitudinal studies to examine the timing of the emergence of explanatory styles, occurrence of negative life events, and development of depressive symptoms within AI youth. These designs would allow for more confident statements about the causal role of explanatory style. Another limitation of our study was the low internal reliability of the CASQ-R. However, our reliability scores for the CASQ-R were similar to those obtained with majority-culture youth populations (Thompson et al., 1998). Finally, it is important to note that we sampled youth from one reservation in a single school. Given that there are over 550 federally recognized tribes, one must be cautious in generalizing our findings to other AI youth populations.

This was the first empirical investigation of the relationship between explanatory style and depressive symptoms in the context of negative life events with an AI youth sample. Our results suggest that how AI youth think about the causes of positive and negative life events matters and relates strongly to their depressive experiences. Given the implications for promoting resiliency and preventing the development of serious mental health problems, we hope our findings encourage future studies that attempt to further explore the relationship between explanatory styles and mental health in AI youth.

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