

Native American¹ Children and Their Reports of Hope:
A Factor Analytic Comparison

BY

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¹ Several terms can be are used interchangeably to refer to Native American individuals (e.g., American Indian, Indigenous Peoples). I have chosen to use the term Native American throughout the manuscript because it is currently the term being used in the field of psychology.

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Abstract

The present study investigated the applicability of the Hope Theory (Snyder et al., 1991) among a Native American child population in the Midwest.

Dependent variables included (a) the Hope Interview and (b) the Children's Hope Scale. By assessing these variables, this study addressed the following questions: (a) Is the conceptualization of hope that is used predominately with European American samples, similar to the conceptualization of hope among Native American child populations?; and (b) Do Native American children's responses to the Children's Hope scale load on the same two-factor hope model similar to the previous validation study (Snyder, Hoza, et al., 1997)?

Results show that scores of Native American children loaded similar to the validation study participants, suggesting the Children's Hope Scale is applicable with Native American populations. Implications and future research directions are reviewed.

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Native American Children and Their Reports of Hope

Introduction

Until recently, psychologists tended to diagnosis, treat, and make policy decisions based solely on an individual's deficiencies, excluding from their equations their client's strengths (Wright & Lopez, 2002). Increasingly, researchers are realizing the importance of developing a science that centers on expanding or increasing existing human personality strengths, rather than focusing on therapies that are directed solely towards repairing an individual's negative qualities (Snyder & McCullough, 2000).

One of the most important areas of child development is the attempt to better understand childhood depression, substance abuse, and mental health disparities in child populations. In this area as well, researchers increasingly include examination of the positive qualities in adolescents, rather than focusing primarily on the difficulties and stressors they encounter (Johnson, Roberts, & Worell, 1999). Optimism, faith, and hope, for example, are a few of the human strengths that studies have shown to act as shields against mental illness (Seligman, 2002). Optimistic adolescents are more motivated, have less depressive symptoms, and have better health than their pessimistic peers (Seligman, 1991). College students with high levels of hope also reported higher feelings of self-worth, and lower levels of depression when compared to peers who reported lower levels of hope (Snyder, McDermott et al., 1997; Snyder et al., 1996). Referred to as the Positive Psychology

movement, this sub-field is developing as an alternative to clinical psychology's typical preoccupation with pathology by examining how increasing positive qualities in individuals may develop effective mental health interventions and strategies. In other words, positive psychology focuses less on mending what is broken and more on expanding or increasing an individual's existing strengths.

Literature Review

The theory of hope, developed by Snyder et al. (1991) and considered a branch of positive psychology, provides my underlying theoretical perspective for this study. Snyder et al. (1991) hypothesized that hope² is fueled by *agencies* and influenced by *pathways*. The agency component is "the cognitive willpower or energy to get moving toward one's goal" and the pathway component is "the perceived ability to generate routes to get somewhere" (Snyder, 1995, p. 355). Children who reportedly have high levels of hope can visualize ways to achieve their desired outcomes (pathways thinking) and can initiate and sustain efforts that they apply to reaching these goals (agentic thinking). Further, successful pathways thinking is expected to increase agency thinking, thereby impacting an individual's ability to successfully reach their goals. Both components of hope, pathways and agency, must be assessed together to obtain an overall view of the child's

² Definition of hope: "the belief that one can find pathways to desired goals and become motivated to use those pathways" (Snyder, Rand, & Sigmon, 2002).

hope level. Higher levels of hope reflect a raised sense of cognitive energy and pathways for goals, thereby implying that people with higher hope approach a goal with an “elevated positive emotional state, a sense of challenge, and a focus on success rather than failure” (Snyder, 1995, p. 355). Conversely, low hope individuals approach a goal with a “negative emotional state, a sense of ambivalence, and a focus upon failure rather than success” (Snyder, 1995, p. 355).

Working from this theory of hope, Snyder and his colleagues’ developed a framework for measuring hope with adults, adolescents, and children. Snyder, Hoza et al. (1997) specifically developed the Children’s Hope Scale to measure hope in children younger than sixteen. This particular Scale is designed for research on all children regardless of gender, race, or their current life situations.

To date, two studies have investigated the difference in hope levels among ethnically diverse children. The validation study found the scale to possess acceptable reliability and validity estimates (Snyder, Hoza, et al., 1997) with no gender or racial differences found among Caucasian, Hispanic and African American ethnicities. Conversely, an unpublished dissertation by Callahan (2000) suggested that racial differences may exist among minority children. Specifically, Callahan (2000) examined the differences in hope among African American, Asian American, Native American, Caucasian American, and Hispanic American children. Callahan (2000) posited that

there would be no significant differences in hope level based on ethnicity. Interestingly, African American had the highest levels of hope, whereas Hispanic and Native American children reported the lowest levels of hope during intermediate, middle, and high school grades.

These contradictory results between the study conducted by Callahan (2000) and the study conducted by Snyder, Hoza et al. (1997), suggested differing, and thereby inconclusive, outcomes. In response, Lopez, Ciarlelli, Coffman, Stone, and Wyatt (2000) emphasized that, “the cross-cultural applicability of hope measures need to be considered very carefully because the development and validation research for the measure has been based on samples generally lacking diversity,” (p. 73).

In regards to the present study, differences found by Callahan (2000) regarding hope level among different ethnic groups are interesting. Both historical as well as present day differences that ethnic groups experience may partially explain the differences in levels of hope. One possible explanation may be that Native Americans tend to value easily accessible resources (e.g., family, community, traditions; Sue & Sue, 1999); whereas recent research suggests that a number of African Americans value things such as educational attainment similar to their European American counterparts (Wentzel, 1998). This difference in African American perspective or viewpoint may be resulting in a more European American oriented way of reporting on psychological measures by African Americans.

Specific to Native American individuals both the historical trauma and experiences of present day discrimination may impact hope level. Current information indicates that Native Americans are at greater risk for experiencing trauma and developing emotional and behavioral disorders. Specifically, Native American youth are exposed to higher rates of domestic violence, are more likely to live in poverty, are more likely to abuse illegal substances, and have higher suicide rates (Brave Heart & DeBruyn, 1998; Nebelkopf & Phillips, 2003). The increased rates of mental health disorders and social pathology in Native American youth are likely related to the chronic trauma, forced assimilation, and loss of cultural identity that Native Americans have experienced since the late 15th century. The history of oppression and discrimination that Native American communities have experienced as well as the incompatibilities between Native American and European American cultures is thought to have hindered development and growth in Native American communities (Belcourt-Dittloff & Stewart, 2000, Weaver & Brave Heart, 1999). These profound experiences may have an impact on reports of hope.

A primary concern of the present study lies in the cultural values or understandings that researchers attach to their definitions of hope, such as: faith, individualism, accomplishments, successes, future goals, and previous positive experiences (Averill, Catlin, & Chon, 1990). Different cultures may comprehend and evaluate characteristics such as hope differently depending

upon their differing perceptions. For example, Holt (2000) examined the “meaning of hope” in a small village in the Dominican Republic. Holt (2000) posited that although studies have found evidence of a relationship between hope and health (Miller, 1992; Herth, 1989), these studies have been conducted without any reference to cultural diversity or poverty. In consequence, such studies imply that there actually is a universal belief regarding the definition of hope. Holt (2000) interviewed many of the villagers and coded their responses to the interview for the presence of categorical content. In conclusion, Holt (2000) reported that hope can be discussed as a universal concept between Dominican culture and American culture. As did Haase et al. (1992), Holt (2000) found that the definition of hope contained a desire or positive outlook for the future, a goal or desired outcome, and was sometimes referred to as an energized personal state.

Regardless of Holt's conclusions, however, it has been argued that, “the universal approach is not generally useful for explaining outcomes among people possessing diverse cultural attachments” (Jackson, 2003, p. 381). Unfortunately, there is sparse research with regard to universal concepts among various cultures. In order to generalize findings, researchers usually exclude cultural variables and presume that the psychological constructs developed, applied, and tested using primarily European American samples are universal (Jackson, 2003). Recognition of this fact had led to strong encouragement for researchers to test applicability and

appropriateness of the hope theory, and the Children's Hope Scale, across cultures (Lopez, Gariglietti et al., 2000).

Overview to Present Study

To date no published studies have analyzed how Native American children interpret or perceive the definition of hope, which makes it impossible to determine if the hope theory is compatible with Native American perceptions of hope, and whether or not the Children's Hope scale as devised, is even applicable to Native American children. To ensure that future researchers can accurately and ethically use the Children's Hope Scale within Native American child samples, two questions must be evaluated. First, do Native American children interpret the definition of hope in a manner similar to that described in the Snyder et al. (1991) Hope Theory? Second, do Native American children's responses to the Children's Hope Scale have a similar factor structure in comparison to the Children's Hope Scale validation study (Snyder, Hoza, et al., 1997)? The present study intends to answer these two questions and expand the literature on Native American children in the area of positive psychology, specific to hope theory.

Hypotheses

1) Consistent with the argument that the concept of hope is universal (Holt, 2000; Snyder, Hoza, et al., 1997), it is hypothesized that there will be a robust relationship between the concepts of Hope Theory and the qualitative

information given by the Native American children in their responses to the Hope Interview. Specifically, it is hypothesized that Native American children's responses to the Hope Interview will reveal themes that are similar to the Hope Theory (e.g., career aspirations, educational objectives).

2) Because previous research (Snyder, Hoza, et al., 1997) has suggested that there are no ethnic differences in the factor loadings of the Children's Hope Scale, it is hypothesized that the Native American children's responses to the Children's Hope scale in the present study will load on the same two-factor hope model similar to the previous validation study (Snyder, Hoza, et al., 1997).

Methods

Participants

Participants were 91 Native American children (52 females and 39 males) and parents from northern and southern Oklahoma as well as from the Lawrence, Kansas area. The participants represented 37 different tribes, often in combinations. Ages of the participants ranged between 8 years and 14 years, with a mean of 10.54 years ($SD = 1.89$). All participants had one Native American parent or guardian participate.

Measures

Child Measure

Hope Interview. The Hope Interview used in the present study was adapted from an interview format developed by Holt (2000) to explore the concept of hope in children and adults living in the Dominican Republic. The children's responses were written down verbatim by the primary investigator. The responses were then put into categories according to the children's responses. To understand Native American children's perceptions of the hope concept in relation to Snyder's Hope Theory, Kappa coefficients were then computed to ensure reliability among raters on the categories. See Appendix A for a copy of the Hope Interview.

Children's Hope Scale. This study employees the Children's Hope Scale (Snyder, Hoza, et al., 1997), a 6-item self-report questionnaire used to measure the child's level of hope as defined by the Hope Theory. The total level of hope is a sum of two subscales: pathways and agencies. Question numbers one, three, and five assess the agency subscale and questions two, four, and six assess the pathway subscales. Each child answered the six questions on a 6-point scale ranging from *none of the time* to *all of the time*. Thus, total scores can range from six to 36. A score of 29 or higher indicates high hope and a score of 21 or lower indicates low hope. The Children's Hope Scale has demonstrated satisfactory reliability and validity among populations of children from 8 to 16-years old. The Children's Hope Scale validation study

reported Cronbach's alphas ranging from .72 to .86, with a median alpha of .77 (Snyder, Hoza, et al., 1997). In the current study, a Cronbach's alpha of .70 was obtained. See Appendix B for a copy of the Children's Hope Scale.

Parent Measure

Demographic form. The Demographic form was completed by the parent for each child to obtain information on age, gender, tribe, and grade level.

Procedure

All procedures were approved by the University of Kansas Institutional Review Board. Participants were recruited from northeastern Kansas and northern Oklahoma. All necessary information was kept confidential, used only for research purposes, and no individual or identifying information has or will be presented publicly.

The parent or guardian was contacted via the telephone, at group meetings, or by letter or flyer. After contact was made, the parent or guardian was informed about the study and asked if they were interested in participating. After agreeing to participate, the parent or guardian was asked to fill out the demographic form.

The parent or guardian was given \$5.00 for their time and expenses. Additionally, the children were allowed to pick a small prize for participating in the study.

Written consent was obtained from the parent and oral assent was obtained from the child by reading the form aloud before completing the measures. The primary investigator collected the data from the families. Each measure was read aloud to the children individually. The children were asked to answer questions on the Hope Interview and the Children's Hope Scale. Data collection took approximately 10-minutes per child.

Results

The statistical analysis for the present study consisted of four phases. First, descriptive statistics included means and standard deviations for all variables. Second, to determine if the Hope Theory concept is universal, the Hope Interview responses were placed into categories by a primary and secondary coder and kappa coefficients were used to check for reliability of category representation. Chi-square analyses were further used to examine categorical differences. Third, to analyze the intercorrelations of the Children's Hope Scale questions a correlation matrix was examined. Fourth, to examine similarities between the Children's Hope Scale validation study and the present study in terms of factor loadings, an exploratory factor analysis was conducted with a requested two-factor model using principle components extraction and varimax rotation (Cattell, 1978). Finally, a congruence coefficient was calculated in order to assess the level of shared variance between similar factors across the current and normative sample.

Descriptive Statistics

The initial total sample size of $N = 121$ participants included thirty siblings. The current analysis excluded all siblings resulting in a final sample size of $N = 91$. Specifically, each participant from a family with multiple participating siblings was randomly selected using a coin toss.

Data was initially screened for outliers and missing data. No missing values occurred in the present sample and scores on all Child Hope items were normally distributed after extreme items were capped to the next lowest score via box plot observations.

The mean Child Hope score for the present sample was 25.63 ($SD = 4.74$). The normative sample's mean Child Hope score was found to be 25.41 ($SD = 4.99$) (Snyder, Hoza, et al., 1997). Cronbach's Alpha revealed an acceptable internal consistency score of .70, which indicates similar acceptability when compared to the normative sample (.77). Descriptive statistics for all variables can be found in Table 1.

Table 1

Descriptive Statistics

| Variable | Mean | SD |
|-----------------------|-------|------|
| Age | 10.54 | 1.89 |
| Children's Hope Scale | 25.63 | 4.74 |
| Agency score | 13.19 | 2.95 |
| Pathway score | 12.54 | 2.52 |
| Question 1 | 4.32 | 1.13 |
| Question 2 | 4.12 | 1.21 |
| Question 3 | 4.48 | 1.38 |
| Question 4 | 3.81 | 1.37 |
| Question 5 | 4.10 | 1.38 |
| Question 6 | 4.11 | 1.30 |

Kappa Coefficients and Chi-square analyses

To understand Native American children's perception of hope in relation to Snyder's Hope Theory, themes on the children's Hope Interview responses were established through a review by graduate students in the Clinical Child Psychology Program at the University of Kansas. Each child's answers were then placed into categories by the principal researcher (see Table 2). In order to quantify the level of agreement between the primary and secondary coders kappa coefficients were calculated. Kappa coefficients ranged from .89 to .96, with a mean kappa of .94, indicating a sufficient level of agreement between coders.

Table 2

Results and Frequencies for the Hope Interview

| | Frequency (N=91) | Percent |
|--|------------------|---------|
| <u>Question 1: Tell me about your hopes?</u> | | |
| Category One: Hopes for social welfare and relationships | 16 | 17.6 |
| Category Two: Hopes for educations and future goals | 50 | 54.9 |
| Category Three: Hopes for material possessions | 16 | 17.6 |
| Category Four: Do not know, Nothing | 9 | 9.9 |
| <u>Question 2, Part 1: Is hope important to you?</u> | | |
| Category One: Yes | 80 | 87.9 |
| Category Two: No | 1 | 1.1 |
| Category Three: Other | 10 | 11.0 |
| <u>Question 2, Part 2: Why is hope important to you?</u> | | |
| Category One: Answers relating to helping reach dreams and goals | 53 | 58.2 |
| Category Two: Answers relating to family well-being | 6 | 6.6 |
| Category Three: Hope, does not help | 1 | 1.1 |
| Category Four: Do not know | 31 | 34.1 |

The questions that provided the most useful information to the present study were Questions 1 and 2. Question 2 was broken down into two parts; therefore a total of three kappa coefficients were executed. Kappa coefficients can be found in Table 3.

Table 3

Results of kappa analysis for child Hope Interviews

| Cases | Measure of Agreement – Kappa | # of Valid |
|-------------------|------------------------------|------------|
| Question 1 | .962 | 46 |
| Question 2 Part 1 | .899 | 46 |
| Question 2 Part 2 | .955 | 46 |

The categorization of responses to the Hope Interview were made to test whether this method results in similar formulation related to the Hope Theory in which goal-oriented thinking is emphasized. One sample chi-square tests were conducted to assess whether the categories of responses were statistically different for the main questions of interest in this study, i.e. Questions 1 and 2. These were emphasized in order to determine if hope or goal-oriented answers were provided consistent with Hope Theory (Snyder, 1994). Specifically, in the Hope Interview when the children were asked what they hoped for, 55% of children responded with an answer implying some type of educational or future goal. The chi-square value was statistically significant, $\chi^2 (3, N = 91) = 44.96, p = .001$. When queried as to why hope is important, 58% stated that it helped them achieve things, such as a dream or goal. The result of the chi-square test for this question was also significant, $\chi^2 (3, N = 91) = 76.34, p = .001$.

Correlational Analyses

Pearson correlation coefficients were computed for the six questions that make up the Children's Hope Scale (see Table 4). Scores from all questions were significantly correlated with each other, excluding the relationship between questions 2 and 4, where the correlation was not significant.

Table 4

Correlations of Children's Hope Scale (N=91)

| Variable | Variable | | | | | | |
|---------------|----------|-------|-------|-------|-------|-------|------|
| | 1. | 2. | 3. | 4. | 5. | 6. | |
| 1. Question 1 | | 1.00 | | | | | |
| 2. Question 2 | | .26** | 1.00 | | | | |
| 3. Question 3 | | .48** | .23** | 1.00 | | | |
| 4. Question 4 | | .36** | .10 | .25** | 1.00 | | |
| 5. Question 5 | | .27** | .27** | .38** | .27** | 1.00 | |
| 6. Question 6 | | .35** | .28** | .27** | .29** | .35** | 1.00 |

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

Factor Analysis

In order to test the acceptability of a factor model, a Bartlett's test of sphericity was conducted and found to be acceptable ($p < .001$). Given the

present theoretical position that Hope is comprised of two factors (agency and pathway), an exploratory factor analysis was conducted with a requested 2 factor model using principle components extraction and varimax rotation. The item loadings (as well as normative sample item loadings) are presented in Table 5. Inspection of loadings revealed all but one item loaded according to prior hypothesized factor structures (Snyder, Hoza, et al., 1997).

Table 5

Two Factor Solution for Normative Sample (N = 372)¹ and Native American Sample (N = 91) for the Children's Hope Scale

| Item | | Child Hope | |
|------|---|------------|------------|
| | | Agency | Pathway |
| 1. | I think I am doing pretty well. | .70*(.85)* | .26(.09) |
| 2. | I can think of many ways to get the things in life that are most important to me. | .06(.02) | .92*(.85)* |
| 3. | I am doing just as well as other kids my age. | .65*(.74)* | .30(.28) |
| 4. | When I have a problem, I can come up with lots of ways to solve it. | .81*(.32) | -.17(.52)* |
| 5. | I think the things I have done in the past will help me in the future. | .54*(.64)* | .29(.21) |
| 6. | Even when others want to quit, I know that I can find ways to solve the problem. | .41(.41) | .42*(.65)* |

¹Numbers in parenthesis are for the normative sample. Agency variance accounted for by the present factor was found to be: 33.2% (normative sample: 32.5%). Pathway variance accounted for by the present sample was: 22.2% (normative sample: 25.9%).

*Indicates highest loading.

Additionally, a congruence coefficient was calculated in order to assess the level of shared variance between similar factors across the current and normative sample (see Cattell, 1978 for review). Using a criterion cutoff of acceptable coefficients greater than .90, the data revealed an Agency factor congruence coefficient score of .93 (86% shared variance). The

Pathway factor, however, revealed an unacceptable congruence coefficient score of .57 (32% shared variance) across samples.

In order to further evaluate the overlap of the current 2 factor solution with the normative sample, a non-parametric analysis of the item loadings was conducted by calculating the s-index for each factor across the two comparative samples (Cattell, 1978). A matrix is first formed using a frequency count of item loadings classified into three categories: (a) positive salient variables, (b) hyperplane variables, and (c) negative salient variables. A liberal criterion cutoff value for each category was set at $\pm .20$, given the relatively small sample size.

Positive salient variable loadings were counted when both loadings for the same item across samples were greater than .20. Hyperplane variables (i.e., those item loadings near a chance loading of 0) were counted when both item loadings were within a $\pm .20$ level across the two samples. Lastly, negative variables were counted when an item loading was positive on one and negative on the other, both greater than $\pm .20$. An s-index score is then calculated from the obtained frequency scores across all three variable categories. This score can range from a positive 1 to negative 1 (indicating perfect agreement or a perfect reflection of the factor, respectively) and a score of 0 suggests only chance agreement (Cattell, 1978). A perfect agreement score of 1.0 was found for the agency factor ($p < .001$) and .89 ($p < .001$) for the pathway factor.

Discussion

As hypothesized, the majority of children in this sample responded to the Hope Interview with questions emphasizing goal-oriented answers, similar to the development of the Hope Theory. This finding indicates that the Hope Theory (Snyder et al., 1991), used primarily with European American populations, also appears to be fully applicable to the Native Americans in this sample. These findings also suggest that the concept of the Hope Theory is universal across the Children's Hope Scale validation study (Snyder, Hoza, et al., 1997) and the sample in the present study.

In agreement with the second hypothesis that no ethnic differences are expected, the two-factor structure of Children's Hope scale, found in the normative sample, also appeared the same within this sample of Native American children. However, one caveat to this interpretation is that the two-factor structure was not perfectly congruent to normative findings. Specifically, in the Native American sample, Agency appeared to be a more stable construct than Pathways because of the perfect agreement with normative findings, and with all items measuring Agency loading accordingly. The lower congruence of the Pathways construct in the Native American sample resulted from the finding that only two of the three items loaded according to prior hypotheses (Snyder et al., 1997). This may reflect a number of contributing factors, such as cultural differences between Native

American children and those in the normative sample. However, such a conclusion cannot be drawn until further research is conducted.

A confirmatory factor analysis between the normative and Native American sample is necessary to fully examine whether Native American hope is truly a two-factor construct, as it appears to be for the normative group. Obtaining a much larger Native American sample, equal to or greater than the normative sample, may offer more salient findings regarding the form that hope takes in Native American children. Cross-cultural validation of the Children's Hope Scale can increase the understanding of how Native American children consider hope in comparison to children from other cultural or ethnic groups. Validation research, which would include Native American adults, can highlight any similarities or differences between adults and children, and further the understanding of how hope is generally manifested in the Native American population as a whole.

This study suggests that certain strategies for intervention in regards to increasing levels of hope in Native American populations may be applicable. To date no published studies have empirically investigated the utilization of hope interventions with youth. Cheavens, Feldman, Gum, Michael, and Snyder (2006) investigated the effectiveness of a hope based, group therapy protocol with adults. Treatment focused on building goal-pursuit skills. Improvements in the agency component of hope, life meaning, self-esteem, as well as a reduction in anxiety and depressive symptoms were reported.

Future research endeavors may focus on using or creating culturally based hope interventions to assess if similar improvements in the presentation of psychopathology exist (e.g., increase in self-esteem, decrease in anxiety) within Native American communities.

The potential impact on policy is also important to note. Past policies have focused on weaknesses in contrast to empowering Native Americans to discover their cultural strengths and build upon them. Changes to intervention practices with Native Americans may need to be discussed, specifically the development of intervention practices that are based on culturally relevant strengths. For example, interventions that focus on decreasing depression within Native American youth should incorporate cultural experiences (e.g., sweats, powwows, creative arts). Further focus on the identification and discussion of historical trauma using an educational component to normalize and justify certain presentations of psychopathology that may be related to historical factors may be beneficial. Using culturally relevant tools to remind Native American youths of their past history and important cultural aspects may be more appropriate than using European based intervention techniques to treat different cultures. Future investigations to investigate the effectiveness of this type of culturally based intervention will be beneficial. Recent research has suggested that these culturally relevant interventions are proving to have merit (Belgrave et al., 2004; Rubie, Townsend, & Moore, 2004).

Limitations and Future Directions

This study had a relatively small sample size, which limits some aspects of the investigation and conclusions that can be drawn. The amount of variance accounted for by the majority of factor loadings were high, therefore, this would likely be replicated with a larger sample size. In the larger scope of hope research, exploratory analyses (similar to the present study) of groups underrepresented in the normative sample are necessary to determine whether this two-factor construct of hope is consistent across cultures. In general, ideal validation samples should have a large sample size, include individuals from all age groups, and include members of underrepresented cultural and ethnic groups as well as those already present in the normative sample. Only after such studies, can researchers determine if the two-factor hope model is truly a universal cross-cultural construct, valid for all age groups, or a model specific to certain cohorts.

Another limitation of the study is the limited ability to generalize across tribal cultures. Participants in this study were from Oklahoma and Northern Kansas and generalization to Native Americans from this area is good. Future research exploring hope levels with Native Americans from several tribal reservations (e.g., Navaho, Blackfeet, Crow) from several areas of the United States would be needed in order to assess similarities and differences in hope levels across Native American tribes.

Further the unavailability of a measure of acculturation was a limitation of the present study. Although all participants identified themselves as Native American it is unknown how strongly they identified with Native American culture and tradition. How greatly an individual identifies with mainstream culture versus their culture of origin may have influenced their responses to the Hope Interview as well as The Children's Hope Scale. Further investigations of acculturation level in Native American children could further define the population as well as ignite discussion on what might impact children's responses on predominately European American measures, like the Children's Hope Scale.

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Appendix A

Hope Interview

1. Tell me about your hopes? What do you hope for?
2. Is hope important to you? Why?

Appendix B

The Children's Hope Scale

Directions: The six sentences below describe how children think about themselves and how they do things in general. Read each sentence carefully. For each sentence, please think about how you are in most situations. Place a check inside the circle that describes YOU the best. For example, place a check (✓) in the circle (O) above "None of the time," if this describes you. Or, if you are this way "All the time," check this circle. Please answer every question by putting a check in one of the circles. There are no right or wrong answers. (You stated above that you would read the questions aloud to the students)

1. I think I am doing pretty well.

| | | | | | |
|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| None of the time | A little of the time | Some of the time | A lot of the time | Most of the time | All of the time |

2. I can think of many ways to get the things in life that are most important to me.

| | | | | | |
|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| None of the time | A little of the time | Some of the time | A lot of the time | Most of the time | All of the time |

3. I am doing just as well as other kids my age.

| | | | | | |
|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| None of the time | A little of the time | Some of the time | A lot of the time | Most of the time | All of the time |

4. When I have a problem, I can come up with lots of ways to solve it.

| | | | | | |
|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| None of the time | A little of the time | Some of the time | A lot of the time | Most of the time | All of the time |

5. I think the things I have done in the past will help me in the future.

| | | | | | |
|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| None of the time | A little of the time | Some of the time | A lot of the time | Most of the time | All of the time |

6. Even when others want to quit, I know that I can find ways to solve the problem.

| | | | | | |
|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| None of the time | A little of the time | Some of the time | A lot of the time | Most of the time | All of the time |