

COMPARISON OF AMERICAN INDIAN AND NON-NATIVE BASC-2 SELF-REPORT-ADOLESCENT SCORES

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Abstract: BASC-2 SRP-A scores of 162 American Indian (AI) youth were compared with those of an ethnically diverse sample (N = 200) to explore group equivalence. A MANOVA indicated group differences among the five composites, Wilks' $\Lambda = 0.93$, $F(5, 356) = 5.68$, $p < .001$. AIs outscored non-Natives in Inattention/Hyperactivity. We examined AIs' ADHD scores in relation to their acculturation strategies, measured using the Bicultural Ethnic Identity Scale. Culturally marginalized AIs (low White and low Indian acculturation) reported stronger ADHD symptoms than bicultural, assimilated, or separated youth. The potential impact of culture on clinical measures is discussed.

INTRODUCTION

Despite the resilience conferred by their ethnic pride and community, evidence shows that in some ways American Indian (AI) youth fare less well than members of other racial-ethnic groups. Compared with young people from other racial-ethnic groups, AIs are disproportionately more likely to manifest psychological and adaptive difficulties, such as anxiety and depression (Beals et al., 1997; Whitbeck, Johnson, Hoyt, & Walls, 2006). AI young people are more likely to experience attention-deficit/hyperactivity disorder (ADHD; Baydala, Sherman, Wikman, & Janzen, 2006; Beals et al., 1997; Fisher, Bacon, & Storck, 1998; Whitbeck et al., 2006). At school, they also are at higher risk of being classified with learning disabilities, intellectual disabilities, and emotional disturbance (U.S. Commission on Civil Rights, 2009). Among all U.S. ethnic and racial groups, AI students are at the highest risk of school dropout (Stark & Noel, 2015).

It seems likely that the statistical overidentification of AI youth with emotional, behavioral, and learning difficulties is attributable to multiple sources, such as the high poverty rate in the Native population (Federal Interagency Forum on Child and Family Statistics, 2015),

the deleterious effects of historical trauma resulting from anti-Indian government policies on Native families and communities (Choney, Berryhill-Paapke, & Robbins, 2005; Darou, Hum, & Kurtness, 1993), and teacher bias (Hollins & Guzman, 2009). It also raises questions about the appropriateness of the instruments used to evaluate AI young people (Lau & Blatchley, 2009; Ortiz, 2008). Culture is a lens through which individuals perceive, understand, and interact with others, and it is an important determinant of behavioral norms and expectations. For this reason, it is important to validate the equivalence of assessment instruments with members of distinct cultural groups. Native peoples make up only 2% of the U.S. population (U.S. Census Bureau, 2014). Even well-established clinical instruments with nationally representative norm samples rarely include a sufficient sample of AIs in their normative groups to establish test equivalence with this population.

Broadband behavior rating scales are commonly utilized in assessments of social-emotional functioning (Shapiro & Heick, 2004). They are designed to collect information addressing a wide range of functioning from multiple respondents and to allow for the comparison of responses across settings (Achenbach & Rescorla, 2001; Reynolds & Kamphaus, 2004; Weist, Rubin, Moore, Aldelsheim, & Wrobel, 2007). Behavior rating scales constitute an important component of psychological assessment in clinics, schools, and community settings (Shapiro & Heick, 2004). The Behavior Assessment System for Children (BASC-2; Reynolds & Kamphaus, 2004, recently revised in a third edition) is one of the most widely used behavior rating systems. It is used to evaluate both adaptive competencies and social, emotional, and behavioral difficulties of children, adolescents, and young adults aged 2 through 25.

The BASC-2 was developed using large normative samples of individuals that were representative of the gender, age, racial/ethnic composition, and geographic location of the U.S. population (Reynolds & Kamphaus, 2004). The BASC-2 self-report of personality (SRP), designed for individuals aged 12-21, assesses respondents' perceptions of their own social-emotional and behavioral functioning. The BASC-2 was developed and validated using samples reflecting the demographic composition of the U.S. population, with sizeable samples of African Americans and Latinos, but only 5-6% of the norm sample were members of other racial/ethnic groups (Reynolds & Kamphaus, 2004). Very few individuals in the BASC-2 normative sample were AIs. Recent studies have examined the cross-cultural equivalence of the BASC-2 with Asian American samples (Ahn, Ebesutani, & Kamphaus, 2014; Cho, Hudley, & Back, 2003), but

the validity of the BASC-2 with AIs has not yet been examined in the published literature. Professional ethical standards require that instruments be validated with different cultural groups. Validation with different groups ensures that clinical tests are appropriate for individuals who differ from the population for which the tests were developed and to ensure that the scores reflect the same constructs for all test takers (American Psychological Association [APA], 1993, 2010; American Educational Research Association, APA, & National Council on Measurement in Education, 2014).

Geographically, high concentrations of AIs are found in Oklahoma, the upper Midwest, Southwest, and Alaska. Over three-quarters of AIs in these regions live outside of reservations or other Native-designated areas (U.S. Census Bureau, 2010). In some areas with high concentrations of AIs, such as Oklahoma, AIs are relatively well integrated culturally. This integration results from a variety of factors, including federal policies directed at acculturating AIs into European-American society; the historic commingling of tribes involuntarily relocated from their original tribal lands; and the high rates of intermarriage, both among the various tribes and with non-Native peoples (Choney et al., 1995; Garrett & Pichette, 2000; Horejsi & Pablo, 1993). One study concluded that “today, [Oklahoma] Indians... see themselves simply as an American variant with a special heritage... [In recent decades they have] strengthened their pan-Indian as well as [their] tribal identities... The[ir current] situation can best be characterized as a healthy mixture of the acculturative-deculturative experience of cross-cultural adaptation, on one hand, and the strengthening of their group vitality on the other” (Kim, Lujian, & Dixon, 1998, pp. 254-255). For AI youth, evidence suggests that participation in traditional Native activities, identification with Native culture, and involvement in traditional spiritual practices, together with family and community support, are linked with superior resilience, higher levels of prosocial behavior, less substance use, and fewer externalizing behavior problems (LaFromboise, Hoyt, Oliver, & Whitbeck, 2006). For this reason, it may be important to examine the acculturation status of AIs in relation to their psychological, social, and adaptive outcomes (Garrett & Pichette, 2000; Oetting & Beauvais, 1991).

Acculturation has been defined as the degree to which individuals identify with and adhere to the cultural practices both of their heritage communities and of the dominant societies in which they live (Berry, 2005; Berry, Phinney, Sam, & Vedder, 2006; Oetting & Beauvais, 1991). In this bidimensional framework, individuals are classified into one of four acculturation

categories: *bicultural (integrated)*, *assimilated*, *separated*, or *marginal*. Bicultural individuals strongly identify with both the majority and their traditional cultures; assimilated persons strongly identify with the majority culture and weakly identify with their heritage culture; separated individuals weakly identify with the majority culture and strongly identify with their traditional culture; and marginal persons weakly identify with both the majority and heritage cultures. Of the four acculturation strategies, Berry (2005) theorized that biculturalism would lead to the most favorable outcomes with the highest levels of personal resilience and adaptive capability, that assimilation and separation would lead to somewhat lower adaptive functioning, and that cultural marginalization would be the least successful psychologically and psychosocially. Ample research supports this hypothesis with European, Latino, and Asian immigrants to the U.S. (Nguyen & Benet-Martinez, 2013; Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Oetting and Beauvais (1991) also found support for the superiority of biculturalism over all other acculturation strategies for predicting favorable psychological outcomes in AI adults.

A recent meta-analysis of biculturalism and psychosocial adjustment, however, concluded that biculturalism may not be associated with healthier functioning in African Americans or AIs (Nguyen & Benet-Martinez, 2013). Among adult AIs residing on reservations, for instance, bicultural, assimilated, and marginalized individuals were reported more likely to abuse substances than were separated individuals (Herman-Stahl, Spencer, & Duncan, 2003). Garrett and Pichette (2000) found that the bicultural and separated acculturation strategies were equally predictive of healthy outcomes (high educational achievement, mature patterns of conflict resolution, and superior adaptive functioning) in AI youth, suggesting that it is strong acculturation to traditional culture, rather than to both traditional and majority cultures that plays a protective role for AI youth. The absence of strong support for a bicultural advantage for AIs has led to some discussion as to whether the biculturalism-adaptation link may apply only to ethnocultural groups that immigrated to the U.S. voluntarily, or alternatively, whether the development of full biculturalism may be hindered in AIs as a result of historical efforts by the dominant society to suppress their culture (Nguyen & Benet-Martinez, 2013; Schwartz et al., 2010). It is clear that more research is needed to better understand the linkage between acculturation and psychological functioning in AIs.

The Present Study

This study had two aims: 1) to compare the BASC-2 SRP-A composite scores of a sample of AI adolescents with those of a random sample of U.S. youth, and 2) to examine the AIs' BASC-2 SRP-A composite scores in relation to their acculturation strategies. We investigated three hypotheses. First, given prior evidence of higher risk among Native young people, we anticipated that at least some of the composite scores of an AI sample would be different from the scores attained by a random sample of U.S. youth. Second, we predicted that any differences between the AI and comparison samples that were observed would be related to the acculturation status of the AI sample. Third, in light of prior acculturation research, we expected that the composite scores of AIs more strongly acculturated to traditional AI ways would diverge more from those of the comparison sample than the composite scores of AIs more strongly acculturated to non-Native (majority culture) ways.

METHODS

Participants

Participants included two groups of youth aged 12 to 18. One group consisted of a convenience sample of AI youth recruited for the purposes of this investigation. The second (comparison) sample was randomly selected from among 12-18 year old participants in the nationally representative BASC-2 normalization sample (Reynolds & Kamphaus, 2004). Table 1 displays the racial/ethnic composition, gender makeup, and mean ages of the study samples.

American Indian Sample

The 162 youths in the AI sample consisted of 70 males (43.2%) and 92 females (56.8%), ranging in age from 12 to 18 ($M = 14.7$, $SD = 1.90$). Participants were drawn from four schools: three public secondary schools located in a large town with a population under 50,000 in northeastern Oklahoma, and an AI tribally-managed secondary school located in Oklahoma and funded by the Bureau of Indian Education. Sixty-one percent of the students enrolled at these public schools qualified for free or reduced-price lunch under the National School Lunch Program. The tribally-managed school served approximately 400 students, all registered as members of an American Indian tribe. Approximately three-quarters of its students were day

students; the remaining students resided at the school. Thirty percent of the tribally-managed school’s students qualified for free or reduced-price lunch.

Of the 162 participating youth identified as AI, 125 (77.2%) had tribal identification cards formally recognizing their tribal membership. As Table 1 shows, the AI participants identified as members of 24 distinct tribes. The tribes most commonly represented included Cherokee (59%), Ponca (22%), Choctaw (14%), Osage (8%), and Otoe Missouri (8%). The majority of AI participants identified with more than one tribe, and most also identified as members of a non-AI racial/ethnic group. The median education level attained by the participants’ mothers and fathers was some college or technical school.

Table 1
Age, Gender, and Racial/Ethnicity Composition of Study Samples

	AI Sample ^a				Comparison Sample ^b	
	Public School (N = 93)		Tribal School (N = 69)		N	%
Racial/Ethnic Group	N	%	N	%		
Native American	93	100.0	69	100.0	4	2.0
Hispanic	7	7.5	4	5.8	32	16.0
African American	4	4.3	3	4.3	29	14.5
White	63	67.7	45	65.2	122	61.0
Asian	4	4.3	1	1.4	9	4.5
Other	4	4.3	1	1.4	4	2.0
Gender						
Female	42	45	41	59	94	47
Age (yrs)	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
	14.0	1.93	15.7	1.40	14.8	1.85

^aAmerican Indian (AI) sample participants (N = 162) identified all racial/ethnic groups with which they identified, making the total percentage greater than 100%. ^bComparison sample (N = 200) randomly selected from the BASC-2 standardization sample, capped at age 18.

Comparison Sample

The comparison sample was a subset of 200 youths randomly drawn from the general-population normative sample utilized in the initial development of the BASC- 2 (Reynolds & Kamphaus, 2004). The second (comparison) sample was randomly selected from among 12-18 year old participants. The comparison sample included 106 males (53%) and 94 females (47%)

aged 12 to 18 ($M = 14.5$, $SD = 1.88$). The median education level attained by their mothers and fathers was some college or technical school.

Measures

SRP-A

The BASC-2 self-report adolescent form (SRP-A) is designed for youths ages 12 to 21. It consists of 176 items that comprise 16 primary scales; these are combined into five composite scales (Emotional Symptoms Index, Inattention/ Hyperactivity, Internalizing Problems, Personal Adjustment, and School Problems). Investigations of the SRP-A with the nationally representative normative sample reported internal consistency statistics of $\alpha = .83$ to $.96$ for the composite scales, $\alpha = .67$ to $.88$ for the clinical scales, and $\alpha = .68$ to $.88$ for the adaptive scales (Reynolds & Kamphaus, 2004). The structural validity of the SRP-A composite scales was supported by factor analyses showing strong factor loadings of scales to composites (Reynolds & Kamphaus, 2004). In the present study, the internal consistency ranged from $\alpha = .57$ to $.92$ for the composite scales, $\alpha = .35$ to $.85$ for the clinical scales, and $\alpha = .69$ to $.89$ for the adaptive scales for the AI sample (see Table 2). The internal consistency of the scales could not be computed for the comparison sample due to the unavailability of individual responses from the test publisher.

Bicultural Ethnic Identity Scale

The Bicultural Ethnic Identity Scale (BEIS; Moran, Fleming, Somervell, & Manson, 1999; Oetting & Beauvais, 1991) is a 16-item instrument that separately measures identification with AI culture and mainstream American culture. The BEIS produces scores on two subscales: an 8-item *Indian* subscale and an 8-item *White* subscale. The instrument, originally developed by Oetting and Beauvais (1991) and further expanded by Moran et al. (1999), was developed exclusively for use with AI youth. Items, rated on a 4-point Likert type scale, address current family cultural activities, future personal involvement in cultural traditions, language use in the home, and importance of religious or spiritual beliefs. For most items, the four response options are *not at all*, *a little*, *some*, and *a lot*; for several questions the response options are slightly reworded. The possible range of scores for each subscale is 8 to 32, where higher scores indicate stronger levels of acculturation. Cronbach's alpha coefficients were reported of $.92$ for the *White* subscale and $.91$ for the *Indian* subscale (Moran et al., 1999). The validity of the BEIS was

supported by exploratory and confirmatory factor analyses and by convergent and discriminant validation methods (Moran et al., 1999). The Cronbach's alphas for this study were .86 (*White*) and .92 (*Indian*).

Procedures

The study was approved by the Oklahoma State University IRB, school administrators, and local tribal leaders. The participating public schools' Title VII directors identified all students listed as AI from school records. Public school students were identified as AI by their schools' Title VII directors. At all participating schools, school administrators contacted the parents of AI students and mailed them study information and consent forms, together with a postage paid return envelope. One follow-up mailing subsequently was sent home to parents who did not respond to the initial invitation for their children to participate. A total of 881 letters were mailed and 207 were returned, for an overall response rate of 24%. Of the 207 letters returned, 183 of the respondents granted permission for the invited child to participate and 24 parents denied permission.

Data collection dates were determined in consultation with school administration. After obtaining student assent, the surveys were administered anonymously to students in groups at their schools. Participants at each school were offered the opportunity to be entered into a random drawing for a gift card. Of the 183 students whose parents gave permission for them to participate in the study, informed assent was obtained from 169 students. The survey packets included the SRP-A, BEIS, and a demographic information sheet. The placement of the SRP-A and BEIS within the packets was counterbalanced to control for possible order effects. The demographic sheet was placed last on all packets. The two orderings of the survey packet were distributed randomly among the participants at each school. Participants whose SRP-A scores could not be computed due to excessive missing responses as per the BASC-2 scoring instructions (Reynolds & Kamphaus, 2004) were excluded from analysis. Participants with missing BEIS responses were also excluded from analyses. The final number of usable responses was 162.

Plan of Analysis

A 2 x 5 multivariate analysis of variance (MANOVA) was conducted to examine the prediction of the five SRP-A composite T-scores from the American Indian (AI) and comparison groups. Subsequently, a discriminant function analysis (DFA) was carried out to investigate the relative importance of each composite for predicting sample membership. Findings of group differences in composite scores were followed up with investigation of group differences in clinical scores via additional MANOVAs and DFAs.

Subsequently, we explored the ability of acculturation status to predict the AI participants' SRP-A scores on the clinical scales on which group differences were found. The BEIS *White* and *Indian* acculturation scale scores were computed. AI participants were assigned to one of four acculturation groups: High *Indian* and High *White*, High *Indian* and Low *White*, Low *Indian* and High *White*, or Low *Indian* and Low *White*. The relationship between school type (public or tribal) and *White* acculturation, and the relationship between school type and *Indian* acculturation, were examined. One way analysis of variance (ANOVA) was implemented to investigate the prediction of SRP-A scale T-scores from AI students' acculturation status.

RESULTS

Table 2 displays the means and standard deviations of the composite scales' T-scores for both the AI and comparison groups, and the internal consistency of the composites for the AI group. Four of the five composites demonstrated good to excellent internal consistency ($\alpha = .84-.92$); the internal consistency was lower for School Problems ($\alpha = .57$). Overall, the correlations among the composites were moderate, ranging from $r = .29-.55$ (AI sample) and from $r = .32-.54$ (comparison sample). The Emotional Symptoms Index (ESI), which is composed entirely of items that also appear in other clinical scales, was highly correlated with Internalizing ($r = .90$) and Personal Adjustment ($r = -.80$).

Table 2
Means, SDs, and Coefficient Alphas of SRP-A Scales by Participant Sample

Composite Scale	Sample	<i>M</i>	<i>SD</i>	α^a
Emotional Symptoms Index	Comparison	49.9	9.17	.84
	AI	49.0	9.20	
Inattention/Hyperactivity	Comparison	50.2	10.19	.86
	AI	53.4	11.85	
Internalizing Problems	Comparison	49.8	9.37	.92
	AI	50.7	10.31	
Personal Adjustment	Comparison	50.1	9.64	.84
	AI	51.2	9.67	
School Problems	Comparison	51.2	10.69	.57
	AI	51.5	10.27	
Primary Scale	Sample	<i>M</i>	<i>SD</i>	α^a
Attention Problems	Comparison	50.3	9.88	.79
	AI	51.9	10.86	
Hyperactivity	Comparison	50.0	10.40	.77
	AI	54.1	11.42	
Somatization	Comparison	49.4	9.39	.66
	AI	51.3	10.53	
Sense of Inadequacy	Comparison	50.1	9.74	.77
	AI	50.2	10.22	
Depression	Comparison	49.5	9.20	.83
	AI	48.1	9.25	
Anxiety	Comparison	49.8	9.74	.85
	AI	51.6	10.87	
Social Stress	Comparison	50.4	10.13	.48
	AI	49.1	10.78	
Locus of Control	Comparison	50.4	9.95	.77
	AI	51.7	10.12	
Atypicality	Comparison	49.5	9.37	.83
	AI	51.9	11.65	
Sensation Seeking	Comparison	51.6	10.13	.35
	AI	51.9	10.40	

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Table 2 Continued
Means, SDs, and Coefficient Alphas of SRP-A Scales by Participant Sample

Primary Scale	Sample	<i>M</i>	<i>SD</i>	α^a
Attitude Toward Teachers	Comparison	50.7	10.61	
	AI	51.2	11.11	.83
Attitude Toward School	Comparison	50.4	10.38	
	AI	50.3	9.82	.74

Note. American Indian (AI) sample *N* = 162. Comparison sample *N* = 200. Scale scores are reported as T-scores.

^aCoefficient alphas could not be computed for the comparison sample, as item-level responses were not available.

Initially, a 2 x 5 MANOVA was carried out to examine whether the AI sample drawn from public schools differed from the sample drawn from the tribal school in its prediction of the five SRP-A composites. No sample difference was found among the five composites, Wilks' Λ = 0.97, $F(5, 156) = 0.97$, $p = .438$, partial $\eta^2 = .030$. In subsequent analyses, the public school and tribal school AI scores were combined.

Table 3
Correlations Among SRP-A Composite Scales

	School Problems	Internalizing Problems	Inattention/Hyperactivity	Emotional Symptoms Index	Personal Adjustment
School Problems	1.00	.43	.55	.37	-.29
Internalizing Problems	.49	1.00	.54	.90	-.56
Inattention/Hyperactivity	.57	.54	1.00	.52	-.40
Emotional Symptoms Index	.41	.91	.47	1.00	-.76
Personal Adjustment	-.32	-.62	-.32	-.80	1.00

Note. American Indian sample above main diagonal; comparison sample below main diagonal. All correlations statistically significant, $p < .001$.

A second 2 x 5 MANOVA was carried out to examine the prediction of the five SRP-A composites from the AI and comparison groups. Examination of the homogeneity of population variances assumption indicated no violation, Box's $M = 17.04$, $F(15, 475588) = 1.12$, $p = 0.33$. Sample differences were found among the five composites collectively, Wilks' $\Lambda = 0.93$, $F(5, 356) = 5.68$, $p < .001$, partial $\eta^2 = .074$. A DFA was implemented to investigate the relative importance of each composite for predicting sample membership. Table 4 presents the

MANOVA and DFA results. Both the univariate F tests and structure coefficients suggested that Inattention/ Hyperactivity accounted primarily for the sample differences on the composite scores, when disregarding the intercorrelations among the dependent variables. The standardized discriminant function coefficients (DFCs) suggested that the Emotional Symptoms Index (ESI) accounted primarily for the sample differences on composite scores even after controlling for the contributions of the other composite scores. Because the ESI is not independent of the other composite scales (all the ESI items also appear in other SRP-A composites), and also because the very high correlations between the ESI and two other composite scales increased the risk of collinearity in MANOVA and the likelihood of distortion in DFA results (Haase & Ellis, 1987), the ESI was removed from the analysis and the MANOVA and DFA were re-computed. Results, displayed on the right side of Table 4, consistently identified Inattention/ Hyperactivity as the best predictor of acculturation grouping.

Table 4
MANOVA and DFA Results: Relationships Between SRP-A Scores and Participant Sample

	<i>F</i>	<i>p</i>	Partial η^2	Observed Power	5 SRP-A Composites ^a		4 SRP-A Composites ^b	
					Structure Coefficients	<i>DFC</i>	Structure Coefficients	<i>DFC</i>
SRP-A Composite Scale								
Emotional Symptoms Index	0.793	0.374	.002	.144	0.166	2.362		
Inattention/ Hyperactivity	7.770**	0.006	.021	.794	-0.520	-0.809	.732	1.091
Internalizing Problems	0.719	0.397	.002	.135	-0.158	-1.826	.223	.233
Personal Adjustment	1.080	0.299	.003	.179	-0.194	0.413	.273	.662
School Problems	0.074	0.786	.000	.058	-0.051	0.448	.071	-.444
SRP-A Primary Scale								
Attention Problems	2.083	.150	.006	.302	.416	-.210		
Hyperactivity	11.694**	.001	.031	.927	.985	1.104		

Note. *F* = Univariate F tests with (1, 360) degrees of freedom. *DFC* = Standardized discriminant function coefficient. ^aWilks' Λ = 0.93, *F*(5, 356) = 5.68, *p* < .001, partial η^2 = .074. ^bWilks' Λ = 0.96, *F*(4, 357) = 3.59, *p* = .007, partial η^2 = .039. **p* < .01 ***p* < .001

As indicated in Table 2, the AI sample scored higher in Inattention/ Hyperactivity ($M = 53.4$, $SD = 11.85$) than the comparison sample ($M = 50.2$, $SD = 10.19$), constituting a small to medium effect ($d = 0.29$). Given the sample difference in the Inattention/ Hyperactivity composite, a series of follow-up analyses was carried out to explore the source of the difference in the Attention Problems and Hyperactivity primary scales that, together, make up the Inattention/ Hyperactivity composite. The correlation between Attention Problems and Hyperactivity was $r = .54$ for the comparison sample and $r = .60$ for the AI sample. A 2 (participant sample) x 2 (primary scale) MANOVA and DFA were undertaken. The homogeneity of population variances assumption was verified, Box's $M = 5.21$, $F(3, 55174565) = 1.73$, $p = 0.16$. Results, summarized at the bottom of Table 4, indicated a difference on the Attention Problems and Hyperactivity scales collectively, Wilks' $\Lambda = .97$, $F(2, 359) = 6.01$, $p = .003$, partial $\eta^2 = .032$. The univariate F tests, standardized discriminant function coefficients, and structure coefficients all indicated that the overall sample difference identified by Wilks' Λ was attributable primarily to differences in Hyperactivity. The AI sample ($M = 54.1$, $SD = 12.24$) scored higher in Hyperactivity than the comparison group ($M = 50.0$, $SD = 10.40$), representing a small to medium effect ($d = 0.36$). These results disconfirmed hypothesis 1.

Given the sample differences in Inattention/Hyperactivity, we proceeded to explore the ability of acculturation status to predict the AI participants' Inattention/Hyperactivity scores. First, the BEIS *White* and *Indian* acculturation scale scores were computed. Scores ranged from 10 to 32 on the *White* scale (median = 26) and from 8 to 32 on the *Indian* scale (median = 20). The acculturation scores were classified as Low or High using median splits, in accordance with previous acculturation research (Nguyen & Benet-Martinez, 2013; Ward & Rana-Deuba, 1999). The *White* and *Indian* acculturation scores were classified as Low if they were below their respective median scores of 26 (*White*) or 20 (*Indian*); they were considered High if they were above their respective medians. We then assigned the participants to one of four acculturation groups, based on their *White* and *Indian* acculturation scores: High *Indian* and High *White* (HI-HW; $n = 41$), High *Indian* and Low *White* (HI-LW; $n = 54$), Low *Indian* and High *White* (LI-HW; $n = 43$), or Low *Indian* and Low *White* (LI-LW; $n = 27$). These four acculturation groups corresponded to the four acculturation categories of bicultural, assimilated, separated, and marginal, respectively, set forth in Berry et al.'s (2006) theory.

A chi-square test of independence was performed to examine the relation between school type (public or tribal) and *White* acculturation. No statistically significant relationship was found, $X^2(1, N = 162) = 1.68, p = .195$. A second chi-square test of independence was performed to examine the relation between school type and *Indian* acculturation. A statistically significant relationship was found, $X^2(1, N = 162) = 4.60, p = .032$. Students attending the tribal school had higher *Indian* acculturation scores than did the students attending public schools.

Table 5 displays the means and standard deviations of the SRP-A scale scores for each acculturation group. A weak correlation was found between the *White* and *Indian* acculturation classifications, $\phi = -.18$. A one way analysis of variance was analyzed, with the four acculturation groups serving as independent variables and Inattention/ Hyperactivity composite as the dependent variable. Levene’s test indicated no violation of the homogeneity of variances assumption, $F(3, 161) = 1.62, p = .186$. Results indicated that Inattention/ Hyperactivity differed among the four acculturation groups, $F(3,161) = 5.45, p = .001$, thereby confirming hypothesis 2. Post hoc Scheffé tests, with significance levels adjusted to .008 to account for multiple comparisons, identified the source of this difference as between the LI-LW ($M = 59.6, SD = 12.05$) and LI-HW acculturation groups ($M = 48.5, SD = 9.42$), $p = .002$, constituting a large acculturation effect ($d = 1.03$). Among AI participants endorsing weak levels of acculturation to Native ways, youth who also were weakly acculturated to the majority culture (marginalized youth) demonstrated significantly higher Inattention/ Hyperactivity symptoms than did those more strongly acculturated to the dominant culture (assimilated youth). This finding failed to support hypothesis 3.

Table 5
Means and Standard Deviations of SRP-A Scores by Acculturation Group

<i>Indian</i>	<i>White</i>	<i>M</i>	<i>SD</i>	<i>% in clinical range^a</i>
Inattention/Hyperactivity Composite				
Low	Low	59.6	12.05	18.5%
	High	48.7	9.44	2.3
	All	53.0	11.74	8.5
High	Low	53.0	11.38	7.3
	High	54.6	12.72	14.3
	All	53.7	11.94	10.3
All	Low	55.2	11.95	11.0
	High	51.6	11.50	8.2
	All	53.4	11.83	9.6

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Table 5 Continued
Means and Standard Deviations of SRP-A Scores by Acculturation Group

<i>Indian</i>	<i>White</i>	<i>M</i>	<i>SD</i>	<i>% in clinical range^a</i>
Attention Problems Primary Scale				
Low	Low	58.8	11.46	18.5
	High	48.1	9.43	2.3
	All	52.2	11.46	8.5
High	Low	51.6	10.15	3.6
	High	51.9	10.67	2.4
	All	51.8	10.33	3.1
All	Low	54.0	11.07	8.5
	High	50.0	10.19	2.3
	All	51.9	10.79	5.4
Hyperactivity Primary Scale				
Low	Low	57.9	11.56	14.8
	High	49.3	9.41	2.3
	All	52.6	11.04	7.1
High	Low	54.1	12.85	14.5
	High	56.3	13.63	11.9
	All	55.0	13.17	13.4
All	Low	55.3	12.49	14.6
	High	52.7	12.12	7.0
	All	54.0	12.34	10.8

Note. American Indian sample, $N = 162$. BASC-2 scores are reported as s . BASC-2 scores ≥ 70 are in the clinical range. ^aAggregated scores were computed as weighted averages.

Finally, the relative contributions of the Hyperactivity and Attention Problems primary scales to the observed acculturation group differences in the Inattention/ Hyperactivity composite were explored by carrying out a 4 x 2 MANOVA, with the four acculturation groups as independent variables and the Attention Problems and Hyperactivity scale scores as dependent variables. The assumption of homogenous covariance matrices was confirmed, Box's $M = 9.10$, $F(9, 128791) = 0.99$, $p = 0.45$. An omnibus main effect was evident, Wilks' $\Lambda = 0.88$, $F(6, 320) = 3.68$, $p = .001$, partial $\eta^2 = .065$. Univariate F tests, summarized in Table 6, showed that the acculturation groupings predicted both Attention Problems, $F(3, 161) = 5.96$, $p = 0.001$ and Hyperactivity, $F(3, 161) = 3.62$, $p = 0.014$. A DFA investigated the relative importance of the Hyperactivity and Attention Problems scales for predicting acculturation group membership (see Table 6). Together, the MANOVA and DFA results indicated that both Hyperactivity and Attention Problems contribute moderately to predicting acculturation group.

Table 6
Prediction of Attention Problems and Hyperactivity from Acculturation Groupings

Primary Scale	<i>F</i>	<i>p</i>	Partial η^2	Observed Power	Structure Coefficients	<i>DFC</i>
Attention Problems	5.96**	.001	.100	.953	.988	.882
Hyperactivity	3.62*	.014	.063	.788	.687	.186

Notes. American Indian sample, *N* = 162. *F* = Univariate *F* test with (3, 165) degrees of freedom. *DFC* = Standardized discriminant function coefficients. **p* < .05 ***p* < .01

DISCUSSION

This study began by examining the entire SRP-A with AIs in comparison with the normative sample. Although the focus shifted to ADHD because this was the area where significant group differences were observed in SRP-A scores, the finding of low reliability for the School Problems composite and for the Social Stress and Sensation Seeking scales in the AI sample (reported in Table 2) raises the possibility that these scales may lack sufficient reliability when used with AIs.

In this study, AI adolescents scored higher on the SRP-A Inattention/ Hyperactivity composite than did an ethnically diverse sample randomly selected from the instrument's normalization group. Although the SRP-A Inattention/ Hyperactivity composite score is not in itself diagnostic of ADHD, screener instruments such as the BASC-2 are important for informing clinical decision making regarding the need for follow-up assessment.

Research has suggested racial and ethnic differences in children's measured ADHD symptoms. For example, compared with White children, African American children and youth tend to score higher, and Hispanic children score lower, on well-established ADHD rating scales, although the rates of the diagnosis of ADHD is much lower among African American than White children (Cuffe, Moore, & McKeown, 2005; Morgan, Staff, Hillemeier, Farkas, & Maczuga, 2013). Regarding AI and non-Native adolescents, apart from Costello, Farmer, Angold, Burns, and Erkanli (1997), who reported no difference in ADHD symptoms, the majority of published research in this area has indicated more severe ADHD symptoms in AIs than in the general population (Baydala et al., 2006; Beals et al., 1997; Fisher et al., 1998; Whitbeck et al., 2006).

The reasons for these racial/ethnic disparities in ADHD symptoms are not yet clear. It is

possible that these individuals may have experienced greater exposure to known ADHD risk factors (Nomura et al., 2012). For example, both low SES and maternal diabetes during pregnancy are associated with a doubling of the risk of child ADHD; for children with both risk factors, the risk is 14 times as high (Nomura et al., 2012). The prevalence of diabetes has grown among AI peoples in recent decades (Department of Health and Human Services, 2012). Attention-deficit/hyperactivity disorder also is more common in children with premature birth, poor nutrition, and maternal alcohol consumption or smoking during pregnancy (Child Development Institute, 2016). All these factors are linked with poverty (DeSilva, Samarasinghe, & Hanwella, 2011; Duncan, Yeung, Brooks-Gunn, & Smith, 1998; World Health Organization, 2017), which is disproportionately high among AIs and African Americans. Nevertheless, the higher SRP-A Inattention/ Hyperactivity scores observed in our AI sample raise questions about the extent to which the diagnostic criteria established for ADHD reflect culturally-driven deviations from behavior patterns normative in the majority culture (Hosterman, DuPaul, & Jitendra, 2008; Rousseau, Measham, & Bathiche-Suidan, 2008).

In the second part of this study, the acculturation status of the AI participants was measured. An appreciable difference was observed in the median *Indian* and *White* acculturation scores, indicating that our AI sample was more strongly oriented to the dominant culture than to traditional Native ways. Both the *Indian* and *White* acculturation scales also demonstrated a wide range of scores (8 to 32 and 10 to 32, respectively, out of a possible range of 8 to 32 on both scales). These findings are consistent with previous research indicating that Oklahoma AIs tend to be well integrated into the dominant culture while still maintaining a connection with their Native heritage (Kim et al., 1998).

Among these AI youths, SRP-A Inattention/ Hyperactivity was strongly related to acculturation strategies. The marginally acculturated adolescents reported higher levels of Inattention/ Hyperactivity than did the assimilated youth. The marginally acculturated AI adolescents also had the highest percentages of clinically significant scores on the Inattention/ Hyperactivity composite, the Attention Problems, and the Hyperactivity scales (see Table 5). These findings are consistent with previous studies that reported less adaptive outcomes for culturally marginalized AIs (Garrett & Pichette, 2000; Herman-Stahl et al., 2003; Oetting & Beauvais, 1991). It should be emphasized that our findings are correlational and cannot identify cause and effect. An alternative interpretation of our results is that those youth who exhibited

more ADHD symptoms were less likely to endorse BEIS items indicating acculturation in either culture.

Whereas in the present investigation, acculturative marginalization was related to less healthy ADHD-related outcomes, the bicultural, assimilationist, and separated acculturation strategies were indistinguishable in their ability to predict the severity of ADHD symptoms. Our analysis failed to support a unique special advantage associated with biculturalism over the three other acculturation strategies. This finding challenges Berry's (2005) theoretical predictions and confirms suggestions that biculturalism may not be the singularly most adaptive acculturation strategy for AIs, as it appears to be for other ethnocultural groups in the U.S. (Nguyen & Benet-Martinez, 2013; Schwartz et al., 2010).

Strengths

The BASC-2 is one of the most commonly-used clinical instruments with children and adolescents. The present investigation is the first known study to examine the validity of BASC-2 scales with AIs. This study also is important for adopting a cultural framework for exploring potential predictors of mental health markers for AI adolescents.

Furthermore, the present inquiry extends the range of social and cultural environments in which mental health issues have been examined with AI adolescents. This investigation examined individuals in non-reservation communities. Much published mental health research with AI children and youth has been conducted with residents of Indian reservations (Baydala et al., 2006; Beals et al., 1997; Costello et al., 1997; Fisher et al., 1998; Whitbeck et al., 2006). However, three-quarters of AIs reside in non-tribal, non-reservation lands (U.S. Census Bureau, 2011). Reservations constitute a very distinctive type of setting that likely is not representative of the social and cultural environments that shape the lives of most AI youth.

Limitations

This study examined a very limited number of factors as potential predictors of ADHD symptomatology. It seems plausible that additional factors, not included in the current study, also are related to the observed relationships. It may be that both acculturative marginalization and ADHD have a common underlying cause that could not be addressed with the data available in this study. A second limitation pertains to the representativeness of our AI sample. Although the

comparison group was representative of the U.S. population at the time the BASC-2 was normed, our AI sample was a convenience sample drawn from the local community. It is almost certainly the case that the AI and comparison samples differed substantially in the geographic regions from which they were drawn. As can be seen in Table 1, although the mean age of the comparison sample was close to that of the AI sample, the comparison group was comprised of proportionally fewer females.

Thirdly, the majority of parents and guardians of the AI students invited to participate did not respond to invitations for their children to participate in the study. As a result, resulting response rate was lower than desired, raising questions about the representativeness of our sample. Research has shown that the AI population is less likely to participate in research than other minority groups (Rochat, 2008). These differences in participation have been attributed to AI mistrust of researchers and of Europeans, who often conduct research. Historically, AIs have been deceived, hurt, and taken advantage of by the U.S. government and researchers, so it is natural they would be less likely to want to participate (Choney et al. 2005; Darou et al., 1993).

A fourth limitation relates to the age range of our samples. The maximum age of our participants was 18, falling short of the maximum age of 21 for the SRP-A. Thus our results are limited to teenagers and cannot be assumed to reflect SRP-A scores for young adults. Finally, in this study we employed median splitting to assign participants to acculturation categories. There are potential drawbacks associated with the use of median splits for this purpose. Individuals near the midpoints of the two dimensions are placed into contrasting categories, leading to a loss of precision in classification (Berry & Sabatier, 2011). Moreover, the acculturation categories thus formed are relative to the particular sample, limiting generalizability across studies (Ward & Rana-Deuba, 1999). Nevertheless, our results for marginalized youth supported theoretical predictions, suggesting that the use of median splits may have practical utility for identifying individuals at risk within their communities.

Future Research

Additional study of the SRP-A with AIs is warranted to further investigate scale reliability. This study reported higher ADHD symptom scores among AIs as measured by the BASC-2, consistent with prior research. Although this finding is important, it should be borne in mind that the BASC-2 is a screener instrument and is not diagnostic in and of itself. Our results

suggest that similar studies are needed with ADHD-specific clinical measures, such as the Conners Third Edition (Conners, 2009), which are relied on more heavily for formal diagnosis. Future studies that examine ADHD symptoms in AIs should include a broader set of factors as potential predictors.

Our results suggest that acculturation theory is promising for informing future investigations of AI mental health risk and resilience. The AI participants in this study expressed a stronger orientation to the dominant culture than to traditional Native ways. It seems plausible, however, that AIs' acculturation profiles may differ substantially, depending on the sociocultural characteristics of their communities. As Schwartz et al. (2010) stated, "To understand acculturation, one must understand the interactional context in which it occurs... the characteristics of the [individuals] themselves, the groups ... from which they originate, their socioeconomic status and resources, [and] the ... local community in which they settle" (p. 240). A fuller understanding is needed of the impact of acculturation on psychological risk and resilience across diverse types of communities, ranging from isolated reservations to well-integrated areas and from rural to urban environments.

REFERENCES

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Ahn, C. M., Ebesutani, C., & Kamphaus, R. W. (2014). A psychometric analysis and standardization of the Behavior Assessment System for Children-2, Self-Report of Personality, College Version, among a Korean sample. *Measurement and Evaluation in Counseling and Development, 47*, 226-244. <http://dx.doi.org/10.1177/0748175614531797>
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (2014). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- American Psychological Association. (1993). Guidelines for providers of psychological services to ethnic, linguistic, and culturally diverse populations. *American Psychologist, 48*, 45- 48. <http://dx.doi.org/10.1037/0003-066X.48.1.45>
- American Psychological Association. (2010). *Ethical principles of psychologists and code of conduct*. Washington DC: Author.

- Baydala, L., Sherman, J., Wikman, C., & Janzen, H. (2006). ADHD characteristics in Canadian Aboriginal children. *Journal of Attention Disorders*, 9, 642-647. <http://dx.doi.org/10.1177/1087054705284246>
- Beals, J., Piaseeki, J., Nelson, S., Jones, M., Keane, E., Dauphinais, P., ... & Manson, S. M. (1997). Psychiatric disorder among American Indian adolescents: Prevalence in Northern Plains youth. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 1252-1259. <http://dx.doi.org/10.1097/00004583-199709000-00018>
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations*, 29(6), 697-712. <http://dx.doi.org/10.1016/j.ijintrel.2005.07.013>
- Berry, J. W., Phinney, J. S., Sam, D.L., & Vedder, P. (2006). Immigrant youth: Acculturation, identity, and adaptation. *Applied Psychology: An International Review*, 55(3), 303-332. <http://dx.doi.org/10.1111/j.1464-0597.2006.00256.x>
- Berry, J. W., & Sabatier, C. (2011). Variations in the assessment of acculturation attitudes: Their relationships with psychological wellbeing. *International Journal of Intercultural Relations*, 35(5), 658-669. <http://dx.doi.org/10.1016/j.ijintrel.2011.02.002>
- Child Development Institute. (2016). *ADHD: Causes*. Retrieved from <https://childdevelopment.info.com/add-adhd/adhd-causes/>
- Cho, S., Hudley, C., & Back, H. J. (2003). Cultural influences on ratings of self-perceived social, emotional, and academic adjustment for Korean American adolescents. *Assessment for Effective Intervention*, 29, 3-14. <http://dx.doi.org/10.1177/073724770302900102>
- Choney, S., Berryhill-Paapke, E., & Robbins, R. (1995). The acculturation of American Indians: Developing frameworks for research and practice. In J.G. Ponterotto, J.M. Casas, L.A. Suzuki, & C.M. Alexander (Eds), *Handbook of multicultural counseling* (pp. 73-92). Thousand Oaks, CA: SAGE.
- Conners, C. K. (2009). *Conners 3rd edition manual*. North Tonawanda, NY: Multi-Health Systems.
- Costello, E. J., Farmer, E. M., Angold, A., Burns, B. J., & Erkanli, A. (1997). Psychiatric disorders among American Indian and White youth in Appalachia: The great Smoky Mountains Study. *American Journal of Public Health*, 87, 827-832. <http://dx.doi.org/10.2105/AJPH.87.5.827>
- Cuffe, S. P., Moore, C. G., & McKeown, R. E. (2005). Prevalence and correlates of ADHD symptoms in the national health interview survey. *Journal of Attention Disorders*, 9(2), 392-401. <http://dx.doi.org/10.1177/1087054705280413>

- Darou, W. G., Hum, A. & Kurtness, J. (1993). An investigation of the impact of psychosocial research on a Native population. *Professional Psychology: Research and Practice*, 24, 325-329. <http://dx.doi.org/10.1037/0735-7028.24.3.325>
- Department of Health and Human Services, Indian Health Service, Division of Diabetes Treatment and Prevention. (2012, June). *Diabetes in American Indians and Alaska Natives: Facts At-a-Glance*. Retrieved from <http://www.ihs.gov/medicalprograms/diabetes>
- De Silva, V., Samarasinghe, D., & Hanwella, R. (2011). Association between concurrent alcohol and tobacco use and poverty. *Drug and Alcohol Review*, 30, 69-73. <http://dx.doi.org/10.1111/j.1465-3362.2010.00202.x>
- Duncan, G. J., Yeung, W. J., Brooks-Gunn, J., & Smith, J. R. (1998). How much does childhood poverty affect the life chances of children? *American Sociological Review*, 63(3), 406-423. <https://doi.org/10.2307/2657556>.
- Federal Interagency Forum on Child and Family Statistics. (2015). *America's Children: Key National Indicators of Well-Being, 2015*. Washington, DC: U.S. Government Printing Office.
- Fisher, P. A., Bacon, J. G., & Storck, M. (1998). Teacher, parent and youth report of problem behaviors among rural American Indian and Caucasian adolescents. *American Indian and Alaska Native Mental Health Research*, 8(2), 1-27. <http://dx.doi.org/10.5820/aian.0802.1998.1>
- Garrett, M. T., & Pichette, E. F. (2000). Red as an apple: Native American acculturation and counseling with or without reservation. *Journal of Counseling & Development*, 78, 3-13. <http://dx.doi.org/10.1002/j.1556-6676.2000.tb02554.x>
- Haase, R. F., & Ellis, M. V. (1987). Multivariate analysis of variance. *Journal of Counseling Psychology*, 34(4), 404-413. <http://dx.doi.org/10.1037/0022-0167.34.4.404>
- Herman-Stahl, M., Spencer, D. L., & Duncan, J. E. (2003). The implications of cultural orientation for substance abuse among American Indians. *American Indian and Alaska Native Mental Health Research*, 11, 46-66. <http://dx.doi.org/10.5820/aian.1101.2003.46>
- Hollins, E. R., & Guzman, M. T. (2009). Research on preparing teachers for diverse populations. In M. Cochran-Smith & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 477-548). Mahwah, NJ: Lawrence Erlbaum.
- Horejsi, C., & Pablo, J. (1993). Traditional Native American cultures and contemporary U.S. society: A comparison. *Human Services in the Rural Environment*, 16, 24-27.
- Hosterman, S. J., DuPaul, G. J., & Jitendra, A. K. (2008). Teacher ratings of ADHD symptoms in ethnic minority students: Bias or behavioral difference? *School Psychology Quarterly*, 23(3), 418-435. <http://dx.doi.org/10.1037/a0012668>

- Kim, Y. Y., Lujian, P., & Dixon, L. D. (1998). "I can walk both ways": Identity integration of American Indians in Oklahoma. *Human Communication Research*, 25(2), 252-274. <http://dx.doi.org/10.1111/j.1468-2958.1998.tb00445.x>
- LaFromboise, T. D., Hoyt, D. R., Oliver, L., & Whitbeck, L. B. (2006). Family, community, and school influences among American Indian adolescents in the upper Midwest. *Journal of Community Psychology*, 34(2), 193-209. <http://dx.doi.org/10.1002/jcop.20090>
- Lau, M. Y., & Blatchley, L. A. (2009). A comprehensive, multidimensional approach to assessment of culturally and linguistically diverse students. In J.M. Jones (Ed.), *The psychology of multiculturalism in the schools: A primer for practice, training, and research* (pp. 139-171). Bethesda, MD: National Association of School Psychologists.
- Moran, J. R., Fleming, C. M., Somervell, P., & Manson, S. M. (1999). Measuring bicultural ethnic identity among American Indian adolescents: A factor analytic study. *Journal of Adolescent Research*, 14(4), 405-426. <http://dx.doi.org/10.1177/0743558499144002>
- Morgan, P. L., Staff, J., Hillemeier, M. M., Farkas, G., & Maczuga, S. (2013). Racial and ethnic disparities in ADHD diagnosis from kindergarten to eighth grade. *Pediatrics*, 132, 85-93. <http://dx.doi.org/10.1542/peds.2012-2390>
- Nomura, Y., Marks, D. J., Grossman, B., Yoon, M., Loudon, H., Stone, J. & Halperin, J. M. (2012). Exposure to gestational diabetes mellitus and low socioeconomic status: Effects on neurocognitive development and risk of attention-deficit/hyperactivity disorder in offspring. *Archives of Pediatrics & Adolescent Medicine*, 166(4), 337-343. <http://dx.doi.org/10.1001/archpediatrics.2011.784>
- Nguyen, A., & Benet-Martinez, V. (2013). Biculturalism and adjustment: A meta-analysis. *Journal of Cross-Cultural Psychology*, 44, 122-159. <http://dx.doi.org/10.1177/0022022111435097>
- Oetting, E. R., & Beauvais, F. (1991). Orthogonal culture identification theory: The cultural identification of minority adolescents. *The International Journal of the Addictions*, 25, 655-685. <http://dx.doi.org/10.3109/10826089109077265>
- Ortiz, S. O. (2008). Best practices in nondiscriminatory assessment. In A. Thomas, & J. Grimes (Series and Vol. Ed.), *Best practices in school psychology V: Vol 2*. (pp. 661-678). Bethesda, MD: National Association of School Psychologists.
- Reynolds, C. R., & Kamphaus, R. W. (2004). *Behavior Assessment System for Children manual*. (2nd ed.) Minneapolis, MN: Pearson.
- Rochat, R. (2008). The challenges of conducting research to improve the health of American Indians and Alaska natives. *Springer Science + Business Media*, 12, S126-S127.

- Rousseau, C., Measham, T., & Bathiche-Suidan, M. (2008). DSM IV, culture and child psychiatry. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, 17, 69-75. Retrieved from http://www.cacap-acpea.org/en/cacap/Journal_p828.html
- Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation: Implications for theory and research. *American Psychologist*, 65(4), 237-251. <http://dx.doi.org/10.1037/a0019330>
- Shapiro, E. S., & Heick, P. F. (2004). School psychology assessment practices in the evaluation of students referred for social/behavioral/emotional problems. *Psychology in the Schools*, 41, 551-561. <http://dx.doi.org/10.1002/pits.10176>
- Stark, P., & Noel, A. M. (2015). *Trends in high school dropout and completion rates in the United States: 1972–2012* (NCES 2015-015). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>
- U.S. Census Bureau. (2010). *The American Indian and Alaska Native population: 2010*. Washington DC: Author. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-10.pdf>
- U.S. Census Bureau. (2011). *Profile America Facts for Features: American Indian and Alaska Native Heritage Month: November 2011*. Pub. No. CB11-FF. 22. Washington DC: Author. Retrieved from http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff22.html
- U.S. Census Bureau. (2014). *Facts for features: American Indian and Alaska Native Heritage Month: November 2014*. Washington DC: Author. Retrieved from <http://www.census.gov/newsroom/facts-for-features/2014/cb14-ff26.html>
- U.S. Commission on Civil Rights. (2009, April). *Minorities in special education: Briefing report*. Washington DC: Author. Retrieved from <http://www.usccr.gov/pubs/MinoritiesinSpecialEducation.pdf>
- Ward, C. & Rana-Deuba, A. (1999). Acculturation and adaptation revisited. *Journal of Cross-Cultural Psychology*, 30(4), 422-442. <http://dx.doi.org/10.1177/0022022199030004003>
- Weist, M. D., Rubin, M., Moore, E., Aldelsheim, S., & Wrobel, G. (2007). Mental health screening in schools. *Journal of School Health*, 77(2), 53-58. <http://dx.doi.org/10.1111/j.1746-1561.2007.00167.x>
- Whitbeck, L. B., Johnson, K. D., Hoyt, D. R., & Walls, M. L. (2006). Prevalence and comorbidity of mental disorders among American Indian children in the northern Midwest. *Journal of Adolescent Health*, 39(3), 427-434. <http://dx.doi.org/10.1016/j.jadohealth.2006.01.004>

World Health Organization. (2017). World No Tobacco Day 2017: Tobacco threatens us all: Protect health, reduce poverty and promote development. Geneva: Author. Retrieved from <http://apps.who.int/iris/bitstream/10665/255561/1/WHO-NMH-PND-17.2-eng.pdf?ua=1>

ACKNOWLEDGEMENTS

The first author gratefully acknowledges the hospitality of the Greenwood Institute, University of Leicester, UK during the completion of this manuscript.

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