Patterns of Hopelessness among American Indian Adolescents:
Relationships by Levels of Acculturation and Residence

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Abstract

Poor mental health among American Indian adolescents has been a matter of significant concern for the past two decades. This study extends the literature on acculturation within this population by investigating the relationship between hopelessness, levels of acculturation, and residence among American Indian adolescents. Utilizing data drawn from 438 adolescents across 67 American Indian tribes, our analyses show that American Indian adolescents who have bicultural competence (i.e., those who are adept in both Indian and White cultures) have significantly less hopelessness than do those with adeptness in only one culture or in neither culture. Our findings also show a significant difference by residence, with American Indians who live on reservations indicating less hopelessness than those living in urban or rural/non-reservation areas. Analysis of interaction effects suggests that the beneficial effect of adeptness in White culture is particularly true for American Indians living in urban areas.
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Research over the past two decades has shown significantly low mental health indicators among American Indian adolescents. American Indians must cope with poverty, violence, and cultural trauma (a term encompassing the legacy of forced relocation and acculturation, societal prejudice, and systematic genocide), which create chronic stress and heighten the risk of mental illness (Hawkins & Blume, 2002). American Indian adolescents have high rates of a variety of mental health problems, including antisocial behavior, panic disorder, and pathological gambling (Dick, Manson, & Beals, 1993; Stiffman, Alexander-Eitzman, Silmere, Osborne, & Brown, 2007). Indicators of psychological difficulty such as depression, low self-esteem, and suicide are particularly prevalent among this population (Jackson & Lassiter, 2001; Twenge & Crocker, 2002). A study of depressive symptoms among American Indian high school boarding school students found that 58% of the students who responded to the CES-D were classified as depressed (Manson, Ackerson, Dick, Baron, & Fleming, 1990), a marked contrast to the 20% to 25% of adolescents within the mainstream population who have been shown to experience depressive symptoms (Angold & Costello, 1993). Indeed, due to this high prevalence rate among their sample, Manson et al. (1990) urge caution in using the CES-D with American Indian adolescents, noting that the conventional CES-D cut-off rate may not be appropriate for this population and that further investigation of the fit of its dimensional structure may be necessary. (See Beals, Manson, Whitesell, Mitchell, Novins, et al., 2005, for a discussion of the cultural and methodological factors that may impact depression measurement in this population, including difficulty conceptualizing
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conventional time frames and variation between tribal communities.) More recently, in a study using statements from the DSM-III-R to compare depression across a variety of racial and ethnic adolescent groups, Saluja, Iachan, Scheidt, Overpeck, Sun, and Giedd (2004) found that Native American and Hispanic youth had higher levels of depressive symptoms than Caucasian youth, with African American and Asian youth having the lowest prevalence rate.

Similarly, suicide and suicide-related behaviors (i.e., suicidal ideation, suicide planning, and suicide attempts) are significant public health concerns for American Indians (Centers for Disease Control, 2006). One troubling trend is that the distress begins early: suicide is now the third leading cause of death among American Indian children and adolescents in the 10 to 14-year old age group and the second leading cause of death in the 15 to 24-year old age group (National Center for Health Statistics, 2002). In research on American Indian youth suicide, LaFromboise, Medoff, Lee, and Harris (2007) found that 19.7% of early adolescents attending middle school on a Northern plains reservation stated that they had attempted suicide at least once in their lives. Research with high school students on the Zuni pueblo during a pilot test for evaluation of an intervention for suicide prevention found even more pronounced numbers: 30% of participants reported having tried to kill themselves, with 70% of those having tried two or more times (Howard-Pitney, LaFromboise, Basil, & September, 1992).

A substantial body of research has suggested that some of the poor mental health experienced by American Indian adolescents may be exacerbated by the difficulties associated with acculturation. Indeed, there has been a longstanding discussion regarding the relationship between acculturation and its effect on mental health in a variety of populations. Acculturative stress, or psychocultural stress due to cultural differences between two or more cultures, has been linked to diminished physical and mental health in individuals or groups undergoing acculturation (Boggs,
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1953; Lefley, 1976; Nwadiora & McAdoo, 1996). It has also been shown to put ethnic minorities at risk for negative mental health outcomes, including anxiety, depression, feelings of marginality and alienation, heightened psychosomatic symptom levels, and identity confusion (Berry & Annis, 1974; Hovey, 1998, 2000; Hovey & King, 1996; Smart & Smart, 1995). However, the literature on acculturation also indicates some variety in effects on health behavior both within and across ethnic groups (Landrine & Klonoff, 2004; Oppedal, Roysamb, & Sam, 2004; Salant & Lauderdale, 2003; see also Choney, Berryhill-Paapke, & Robbins, 1995, for a health model conceptualization of American Indian acculturation). Roysircar-Sodowsky and Maestas (2000) have noted that individuals who undergo acculturation do not necessarily experience mental health problems and the level of psychological difficulties can vary depending on individual and group characteristics.

For American Indian adolescents, acculturation can often result in feelings of marginality and alienation. The term “walking in two worlds” is frequently used by both American Indians and non-Indians to describe the dichotomous manner of simultaneously operating within the mainstream world (non-Indian society) and the American Indian world. The metaphor describes the plight of American Indian youth who must “cross,” “straddle,” or “walk between” often colliding worlds (Henze & Vanett, 1993). One Hopi community member described youth who live off-reservation as “horizon children;” that is, caught at the horizon, neither sky nor earth, and suspended between two worlds (Deyhle & Swisher, 1997, p. 166). As this description suggests, American Indian adolescents often experience significant internal conflict as they try to live according to two (or more) distinct, and often contradictory, value systems.

Contact with the dominant culture often brings with it perceived prejudice as well as mainstream conformity pressures. When American Indian adolescents are confronted with negative stereotypes of their difference (i.e., their ethnicity and/or race), it may also result in “stereotype
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Many American Indians are very aware of the narrow—and, often, negative—sets of ideas and images about their group (Fryberg & Markus, 2003). Indeed, many scholars of American Indian mental health and education have noted the feelings of isolation, rejection and anxiety that develop as American Indian children enter school and are confronted with the demands of a value system that is often incompatible with their own (Cross, 1986; Garrett, 1995; Lomawiama, 1994; Peshkin, 1997; Szasz, 2005). The result may be recurrent confusion, shame, alienation, and at times total withdrawal (Sanders, 1987), but the consequences can also be much worse. In a study of suicide patterns in New Mexico between 1957 and 1979, Van Winkle and May (1986) found that more acculturated Pueblos had the highest rates of suicide, followed by transitional and then traditional Pueblos. This relationship of acculturation to suicide was reiterated in a follow-up study by the same researchers using 1980-1987 data (Van Winkle & May, 1993; see also Levy, 1965 for similar results) and was further buttressed by Lester’s (1999) finding that suicide rates were positively associated with acculturative stress and negatively associated with traditional integration in 18 American Indian tribes.

Due in part to such findings, some have argued that an effective strategy for improving the mental health of American Indian adolescents is through involvement in traditional activities and ceremonies of their heritage and culture. Enculturation, the process of socialization to and maintenance of the norms of one’s indigenous community (Kim & Abreu, 2001; Kim & Omizo, 2006), has been shown to provide a mechanism for coping with acculturative stress (LaFromboise, Hoyt, Oliver, & Whitbeck, 2006; Sunday, Eyles, & Upshur, 2001; Zimmerman, Ramirez-Valles, Washienko, Walter, & Dyer, 1996); indeed, this is one of the assumptions on which the relatively recent “retraditionalization” movement is based. In his study on the treatment of substance abuse
among First Nation people, for instance, McCormick (2000) found that reconnection to cultural traditions helped them discover meaning in life. Similarly, in a study of First Nation people in Winnipeg, Canada, enculturation emerged as an important way of coping with stress and facilitating healing (Iwasaki, Bartlett, & O’Neil, 2005). Whitbeck, Hoyt, Stubben and LaFromboise (2001) have also found that enculturation positively affects the academic performance of American Indian early adolescents.

However, enculturation may not universally function as a protective mechanism. LaFromboise, Medoff, Lee, and Harris (2007) found a positive association between suicidal ideation and involvement in traditional American Indian activities (e.g., doing beadwork, making pow wow regalia, cooking native foods, hunting, etc.) in a remote and economically depressed reservation in the Northern Plains, while DeCoteau, Hope, and Anderson (2003) found that participation in and identification with tribal culture did not buffer the relationship between stressful life events and anxiety among Northern Plains American Indian adults. Similarly, in recent work investigating Indigenous identity among American Indian college students attending Haskell University, an historically American Indian college, Adams, Fryberg, Garcia, and Delgado-Torres (2006) found that degree of Indigenous identification among reservation students was negatively correlated with social self-esteem.

Others have argued that developing bicultural competence is a more effective adaptive strategy to alleviate poor mental health. According to LaFromboise, Coleman, and Gerton (1993), bicultural competence is the ability to function effectively in two cultures without losing one’s cultural identity or choosing one culture over the other. There are a number of behaviors involved in the acquisition of bicultural competence, including shifts in cognitive and perceptual processes. LaFromboise et al. (1993) argue that the key to psychological well being is the ability to develop
and maintain competence in both cultures. However, this is not without its difficulties. Biculturalism is both “associated with feelings of pride, uniqueness, and a rich sense of community and history while also bringing to mind identity confusion, dual expectations, and value clashes” (Benet-Martinez & Haritatos, 2005, p. 1017). American Indian youth are typically socialized into the values and standards of conduct of not one but at least two cultures, the practices of which are not often consonant. For instance, many participate in community efforts to maintain traditional values in addition to using various forms of modern technology. Contemporary American Indian adolescents, two-thirds of whom live in urban/suburban or rural areas, rather than on reservations, typically communicate back and forth to the reservation by phone or internet and cyclically migrate back and forth to the reservation for family matters, ceremonies, work, and medical services. During this bidirectional process they inadvertently select which characteristics of tribal life to retain and which characteristics of mainstream culture to adopt. Like other adolescents, American Indian adolescents’ attention is also further divided between multiple other worlds, such as those of their family, peers, and school (Phelan, Davidson, & Cao, 1991) and that of the larger youth culture in the United States to which they are exposed through electronic media and non-reservation school attendance (Beauvais, Jumper-Thurman, Helm, Pleted, & Burnside, 2004). Accordingly, the “complexities of these lived situations and multiple loyalties” must not be underestimated (Deyhle & Swisher, 1997, p. 165). Those American Indians who are the offspring of intertribal partnerships, are of mixed racial heritage, and/or are being raised by non-Indian foster or adoptive parents must often develop additional cultural dexterity (see Padilla, 2006, for the development of such cultural dexterity among Latinos).

Given the need to further understand ways to reduce the obvious distress in this population, and the lack of clarity regarding the degree to which enculturation and biculturalism function as
protective mechanisms, we sought to further investigate the relationship between levels of acculturation and mental health among American Indian adolescents. We chose hopelessness as our measure of negative mental health because an extensive empirical literature has linked hopelessness to depression, psychopathology, high-risk practices, violent behaviors, and adolescent suicide, while hopefulness has been associated with a variety of positive outcomes (Gillham & Reivich, 2004). Hopelessness, a cognitive state that often accompanies depression, is the lowered expectation of accomplishing certain goals and a deflated belief in the likelihood of achieving success (Melges & Bowlby, 1969). American Indians may be particularly vulnerable to feelings of hopelessness given the history of genocide among their people, the cultural trauma and loss that they continue to experience, and the pervasive poverty in which many still live (Duran & Duran, 1995). Transmitted across generations, cultural trauma influences cognitive schemas and attributional processes that underlie depressive and other mental health disorders (Yellow Horse Brave Heart, 2003). In addition, the American Indian individuals and focus groups with whom we consulted in the development of this study strongly preferred to have adolescents in their communities subjected to queries regarding hopelessness rather than queries regarding depression, anxiety, or substance abuse per se. Citing a desire to prevent the American Indian community from being further pathologized or taken advantage of for research purposes, these community informants and consultants indicated greater cooperation if hopelessness was the measure of negative mental health on which we focused our investigation, and we wished to honor the preferences of the community.

Precisely because of the difficulties that living in multiple worlds may introduce, we hypothesized that bicultural adeptness would likely be most beneficial to psychological health. Thus, we expected to find that American Indian adolescents who indicated bicultural competence
would have less hopelessness than those who indicated competence in only one (or no) culture. We further hypothesized that American Indian adolescents living in urban areas would have less hopelessness compared to those living in rural areas or on reservations because of the greater opportunities and/or institutional supports offered in urban areas.

**Method**

**Participants**

The 438 students who participated in this study represented some 67 American Indian tribes from high schools in reservation, rural, and urban areas across the Great Lakes, Great Plains, Northwest and Southwest areas of the United States. The sample was 53.8% female, 46.2% male; 56.8% reservation, 25.1% urban, 16.2 % rural. Students’ self-identified race was 75.8% American Indian, 11.2% Mixed American Indian and White, and 13.0% Mixed American Indian and other ethnic minority (i.e., Latino, African American, and/or Asian American). The mean age of participants was 15.6 years. At the time of their participation in this study, students resided in 30 communities within the Great Lakes, Great Plains, Northwest and Southwest areas of the country. According to their self-declared tribal affiliation, 28.7% were Lakota, 7.8% Paiute, 4.8% Menominee, 4.5% Tohono O’odham, 4.3% Ojibwa, 4.1% Yaqui, 3.8% Blackfeet, 3.2% Ho-Chunk, and 2.2% Navajo. The Cheyenne and Potawatomi tribes each comprised 1.6% of the sample, while the Cherokee and Arikara tribes each comprised 1.4%, the Apache, Kiowa, Omaha, Oneida, Otoe Missouri, Seminole, and Shoshone tribes each comprised 1.3%, and the Cree, Creek, Nez Perce, and Ponca tribes each comprised 1.1%. 9.8% of the sample consisted of participants whose tribe represented less than one percent of the sample. Participants were recruited through professional networks of colleagues working in Indian education programs in urban areas and in reservation, rural, or boarding schools.
Measures

In order to examine the associations between feelings of hopelessness and levels of acculturation among American Indian adolescents, we administered the Living in Two Worlds Survey (LTWS; LaFromboise, 1999) and the Beck Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974) to participants in this study. We also gathered demographic information such as place of residence (reservation, urban, rural/non-reservation), gender, age, grade, ethnic group(s), and tribal affiliation(s). The LTWS was developed to measure the cultural competence of American Indian adolescents in both mainstream American (here referred to as “White”) culture and American Indian culture. The primary motivation for developing the survey was to better elucidate the behavioral components of biculturalism. The survey was designed from focus groups held with American Indian community members (i.e., elders, parents, teachers, and students) from three reservations and two urban Indian communities to determine from a grassroots perspective the knowledge and skills that adolescents would need to function effectively in both American Indian and White worlds.

The LTWS contains 50 items divided into two scales, “Adeptness in Indian Culture” and “Adeptness in White Culture.” Each item is worded so that it addresses adeptness in Indian culture and White culture separately, with each question (e.g., “How successful are you at reaching decisions in the Indian world?”) immediately followed by its counterpart (e.g., “How successful are you at reaching decisions in the White world?”). The items are grouped under the following topics: Communication (e.g., “How comfortable are you talking and visiting with Indian people?”), Community Membership (e.g., “How good are you about being a part of the White community?”), Cultural Knowledge (e.g., “How much do you know about cultural practices and traditions in the Indian community?”), Friendship (e.g., “How many of the people you hang around with are
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White?), and Support (e.g., “How sure are you that there is an Indian person with whom you can share your most private worries and fears?”). Respondents are asked to indicate how well each item describes or applies to them using a Likert format (A = Very Well, scored a 4; B = Somewhat Well, scored a 3; C = Not Very Well, scored a 2; and D = Not at All, scored a 1). All items are worded in the positive direction, such that higher scores on each scale indicate greater identity and effective involvement in that society (range = 50-200). Alpha reliability coefficients for a sample of adolescents responding to the LTWS in a previous study were .83 for the Adeptness in Indian Culture scale and .94 for the Adeptness in White Culture (Bryant & LaFromboise, 2005). Alpha reliability coefficients for the LTWS in this study were .91 for the Adeptness in Indian Culture scale and .93 for the Adeptness in White Culture scale; the interscale correlation was .23.

Feelings of hopelessness were assessed using the Beck Hopelessness Scale (Beck, et al., 1974), a 20-item true-false inventory used to assess pessimism or negative expectations about the future (range = 0-20). Higher scores indicate higher levels of hopelessness. The scale is reported to have a high degree of internal consistency (Beck et al., 1974). LaFromboise and Howard-Pitney (1995) found an alpha coefficient of .76 in a study with Zuni adolescents. In the current study, the alpha reliability coefficient for the Beck Hopelessness Scale was .83.

**Procedure**

An American Indian graduate student and/or a local community member administered the survey, providing a brief description of the study to each class, answering questions, and distributing parental consent forms. Parental consent forms included a description of the study and an assurance that their child’s participation was both voluntary and confidential. Parents were invited to contact a designated school administrator or the principal investigator within two weeks if they had additional questions or wished to see the actual survey. In accordance with standard
operating procedures within the schools and with approval of the school administrators, we obtained passive consent. Only one parent refused to allow their child to participate in the study. Participants received a description of the study, assent forms, and assurance of the voluntary and confidential nature of their participation. Investigators coordinated with administrators and teachers to identify classes and after-school sessions during which the surveys could be administered. The procedures for this research were approved by the Institutional Review Board at Stanford University.

Results

We found that both the Adeptness in Indian Culture and Adeptness in White Culture scales were significantly and negatively correlated with hopelessness (Pearson $r = -0.337$ and $-0.301$ respectively, $p$-values $< .001$), suggesting that a greater sense of adeptness in either culture is linked to less hopelessness. We then assessed if the Adeptness in Indian Culture and Adeptness in White Culture scales were conditionally independent (additive) predictors of hopelessness in a linear regression model, the results of which are presented in Table 1. Both the Adeptness in Indian Culture and Adeptness in White Culture scales were significant predictors of hopelessness in this model ($t = -6.26$, $p<.001$ and $t = -5.28$, $p<.001$ respectively) suggesting that respondents who are high on both scales should have less hopelessness than those who are high on just one of the scales and, further, that both of these groups should have less hopelessness than respondents who report low adeptness in both cultures.

(Table 1 here)

In order to map these relationships onto groups of people, we then constructed a four category identity factor. Respondents who were adept at both Indian and White culture were labeled “bicultural,” respondents who were adept in Indian culture but not White culture were
termed “traditional,” respondents who were adept in White culture but not Indian culture were labeled “acculturated,” and respondents who were adept in neither Indian nor White culture were termed “marginal.” Although several strategies for making these groups were considered, a simple median split on each scale was chosen for several reasons: (1) it yielded groups that were very similar to more opaque strategies (e.g., cluster analysis, various tree models), (2) it enabled straightforward interpretation and application, (3) it yielded four conceptually sensible groups of roughly equal size, and (4) it has been used in prior research with these scales (e.g., Bryant & LaFromboise, 2005; Oetting & Beauvais, 1990-91). Table 2 presents the means and standard deviations of hopelessness by levels of Indian/White cultural adeptness and by residence.

(Table 2 here)

A one-way ANOVA on hopelessness by levels of Indian/White cultural adeptness was significant ($F = 26.7, df = 3,334, p < .001$) and post-hoc comparisons indicated that hopelessness was significantly higher for marginal (low Indian/low White) students compared to all other groups. Furthermore, students with bicultural (high Indian/high White) competence had significantly less hopelessness than students in both the acculturated (low Indian/high White) and the traditional (high Indian/low White) categories. This finding supports our hypothesis that those with bicultural competence would be predicted to have less hopelessness. Finally, a one-way ANOVA on hopelessness by residence (reservation, urban, or rural/non-reservation) was also significant ($F = 5.08, df = 2,330, p = .007$) and post-hoc comparisons indicated that hopelessness was significantly higher for both urban and rural/non-reservation students as compared to those living on reservations. Thus, our hypothesis that urban residents would report less hopelessness than those on reservations or rural areas was not supported.
In order to better understand the interplay of these predictors of hopelessness, and in an effort to generate hypotheses for future research, we then employed a strategy developed by Kraemer and colleagues (Kraemer et al., 2001; Kraemer et al., 2005), sometimes known as the MacArthur model. This model allows for consolidation, organization, and classification of risk factors into an integrated statistical model and, thus, may have more applicability in a clinical setting than do simpler bivariate models. Because these data are cross-sectional, the end result of this process is a generalized linear model in which the most potent conditionally independent correlates of hopelessness are included. F-statistics were used to compare models with and without the various main and interaction effects. Factors (or interactions) which did not significantly contribute to prediction of Hopelessness were omitted. For example, interaction terms with gender and residence (or cultural adeptness) did not improve the prediction of the model and were therefore not retained. The final model is presented in Table 3.

(Table 3 here)

The reference group for the model is male, reservation-dwelling students with mean values on the Adeptness in Indian Culture and Adeptness in White Culture scales of the LTWS. As represented by the intercept, this reference group had an estimate mean (SE) of Hopelessness of 5.45 (0.58). Female gender \( (t = -2.55, p = .011) \) and high values on both the Indian and White cultural adeptness scales \( (t = -5.05, p<.001 \) and \( t = -2.53, p<.012 \) respectively) were associated with less hopelessness. Compared to reservation dwellers, students from rural areas reported more hopelessness \( (t = 2.89, p = .004) \), while urban dwellers did not. The only significant interaction effect was for the Adeptness in White Culture scale and urban residence \( (t = -2.22, p = .027) \), indicating that the beneficial effect of feeling adept in White culture was particularly true for
students living in urban areas. However, we encourage caution when interpreting this result because of the small magnitude of the effect.

Discussion

The results from this study indicate that American Indian adolescents who were adept in both Indian and White culture experienced less hopelessness than did those who were adept in only one (or no) culture. These findings support theoretical speculation about the empowering nature of bicultural competence (LaFromboise, Coleman, & Gerton, 1993). Though not directly replicative, these results are also consonant with previous findings that individuals with bicultural ethnic identity score higher on positive psychological indicators than do marginal individuals (Moran, Fleming, Somervell, & Manson, 1999; Oetting & Beauvais, 1990-91; Phinney, 1989; Phinney & Alipuria, 1990). Given the discussion regarding the positive and negative effects of both enculturation and biculturation as adaptive strategies to psychosocial stresses experienced by American Indians, it is noteworthy that respondents with bicultural competence reported less hopelessness than did those who were only adept in Indian, but not White, culture. However, it is important to note that our findings do not contradict the research on enculturation suggesting that involvement in traditional activities may function to alleviate psychological distress. Instead, our results offer support for the argument, first put forth by Oetting and Beauvais (1990-91), that dual (or multiple) patterns of cultural identification can exist without necessarily deleterious effect, and that individuals may draw personal and social strength from identification with the minority and/or majority culture (i.e., not definitely one or the other). In other words, our results suggest that identification with more than one culture is not necessarily problematic, but a lack of identification with any culture is. Accordingly, the “marginal” individuals included in this study would likely
benefit both from interventions that involve enculturation activities and from those that strengthen their feelings of adeptness in mainstream society.

The finding that residents of reservations experienced less hopelessness than respondents living in both urban and rural/non-reservation areas disproved our expectation that residents of urban areas would feel the least hopeless of the three residential groups. We had hypothesized that urban life would provide more social and economic opportunities and institutional supports and that these would result in feelings of reduced hopelessness for the American Indian adolescents in our study. It may be instead that living on a reservation offers a greater sense of socio-cultural familiarity, feelings of collective efficacy, and/or a modicum of socioeconomic protection relative to living off reservation, and that this helps to explain the lower rate of hopelessness among reservation residents. However, our results do suggest that urban residents may have different needs with regard to cultural competence. The significant interaction effect for adeptness in White culture and urban residence suggests that the benefits of being adept in White culture are particularly true for those living in urban areas, although, as noted above, this result should be interpreted with caution.

The finding that feelings of hopelessness are higher among residents of rural areas is likely explained by the considerable challenges faced by residents of rural communities (see, e.g., Fincher & Wulff, 1997; Merwin, Goldsmith, & Manderscheid, 1995). These findings are also supported by previous work showing that minority individuals are more adversely affected when they are in incongruent social environments than when they are in environments with others similar to themselves (see, e.g., Eithier & Deaux, 1994). An incongruent fit with the community may produce negative feelings associated with a sense of powerlessness and alienation. This form of minority stress (Meyer, 1995) or stereotype threat (Steele & Aaronson, 1995) may contribute to hopelessness
and risk behavior (Bolland, Bryant, Lian, McCallum, Vazsonyi, & Barth, 2007). Though both rural and urban American Indian adolescents are isolated from their tribal support system and their extended family on the reservation, rural youth tend to be the most alienated. While urban areas contain much more diverse populations, and, thus, urban American Indian youth have other people of color with whom to engage social support in addition to benefiting from additional institutional supports, rural American Indian youth typically live in predominately White border towns adjoining reservations in which Indian/White relations are often tense due to altercations over racism, land disputes, casino profits, or hunting and fishing rights, and in which poverty often abounds.

This study has two notable limitations. First, the construct validity of our results relies upon the use of a single measure of acculturation and a single measure of hopelessness. Ideally, these constructs would have been measured with multiple instruments that could provide a check on our results. We hope that future researchers will continue to investigate these relationships by utilizing additional measures with which they can confirm, disprove, or extend these findings. Extending the measurement of acculturation beyond a single scale might further motivate the examination of empirical groupings of individuals on this domain beyond the convenient, but admittedly crude, median-split methodology used here. Second, because this study is cross-sectional, it may confuse and/or occlude significant intertribal differences. Indeed, the relative modestness of our results may be explained by the fact that our study generalizes across tribes, while a substantial literature has shown that there are often tremendous differences between tribal groups. However, the literature has also shown that the need to respond effectively to frequently conflicting bicultural demands is a universal phenomena. Though the large number of tribal affiliations included in this study makes it impossible to examine how (and which) differences across tribes may impact patterns of
hopelessness among American Indian adolescents, we believe that this is a logical next step for future investigations.

In addition to the aforementioned directions for future research, we would also encourage researchers interested in this topic to test the relationships we found using longitudinal models. Examining whether (and/or how) our results may change over time, as respondents mature, would be very useful in facilitating a better understanding of the progression of hopelessness. Future studies should also include other contextual variables that influence identity development, such as the extent of family and community support or the degree of physical and structural integration within mainstream culture, in order to understand how American Indian adolescents conceptualize, experience, and cope with the challenges they face. Importantly, measures of socioeconomic status should be included among such contextual variables in future research. Indeed, very little is known about intra-community dynamics of inequality or about how differences in wealth, education, occupation, or other status indicators relevant to this population may affect feelings of hopelessness and/or the meaning attached to competence in one or both cultures. Though attaining accurate and reliable data on socioeconomic status from adolescents is likely to present a significant methodological challenge, the incorporation of social class into future research on culture, race, and ethnicity is an extremely promising area of study (see Garcia Coll et al., 1996, for an integrative model). In order to help counter more pronounced feelings of hopelessness, future researchers and clinicians may also want to examine positive coping behaviors and other individual attributes invoked in the resilience process that may be especially relevant to American Indian adolescents who live in rural areas and/or indicate marginalized status. If/when they do so, the inclusion of socioeconomic status measures may be particularly valuable to understanding the contextual dynamics of hopelessness and determining appropriate interventions for these populations.
The most striking implication of these findings for clinical intervention with American Indian adolescents is the need to facilitate their exploration of the dynamics of acculturation including how to effectively negotiate dual cultures independently or, at times, simultaneously (e.g., Kenny, 2006; Simms, 1999; Witko, 2006). Clinicians may want to utilize cognitive behavioral therapy and social skills training along with traditional cultural teachings to help youth striving for bicultural competence. Schinke and colleagues (Schinke, Orlandi, Botvin, Gilchrist, Trimble, & Locklear, 1988; Schinke, Tepavac, & Cole, 2000) have employed bicultural skills training to prevent substance abuse and enhance interactive skills with reservation American Indian adolescents, while the Seventh Generation Program has blended mainstream prevention approaches with culturally appropriate interventions to change alcohol beliefs, increase social support and internal locus of control, reduce depression, and establish a firm sense of ethnic identity among urban American Indian adolescents (Moran & Bussey, 2007).

Broad-based antecedent conditions such as cultural and historical trauma, which may contribute to hopelessness and other undesirable outcomes, have been addressed through interventions such as the American Indian adaptation of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT; Cohen, Mannarino, & Deblinger, 2006), Honoring Children-Mending the Circle (BigFoot & Schmidt, 2006). This intervention also combines cognitive behavioral procedures with traditional teachings concerning wellness and healing. These approaches appear to work well with American Indian populations because they focus on specific patterns of behaviors rather than on changing participants’ cultural or social belief systems.

By encouraging parents to blend contemporary parenting with traditional cultural experiences in family activities (Cross, 2001; Kratchowill, McDonald, Levin, Young Bear-Tibbetts, & Demaray, 2002), clinicians may better assist American Indian families in scaffolding their
children’s bicultural social development. Recently, a bicultural treatment model for substance abuse using CBT along with American Indian cultural practices (e.g., sweats, talking circles, early morning runs, discussions of American Indian current events) has been found to encourage youth toward cultural interdependence (Stewart-Sabin & Chaffin, 2003). Structural Ecosystems Therapy (SET) also appears to be a promising intervention to that end. SET not only enhances family functioning but also systematically addresses problems within and between the systems in which adolescents interact (Robbins, Szapocznik, Mayorga, Dillon, Burns, & Feaster, 2007).

Conclusion

This study extends the literature on acculturation within the American Indian community by investigating the relationships between hopelessness, levels of acculturation, and residence among American Indian adolescents. Utilizing survey data gathered across 67 American Indian tribes, we sought to compare feelings of hopelessness in “bicultural,” “traditional,” “acculturated,” and “marginal” adolescents. Our analyses show that American Indian adolescents with bicultural competence have the least hopelessness of the four categories, while those without competence in either culture have the most hopelessness. Our results also indicate that reservation-dwelling adolescents experience the least amount of hopelessness, while those who lived in rural areas experience the most hopelessness. Finally, our results also show a modest beneficial interaction effect between adeptness in White culture and living in urban areas, suggesting that it is particularly helpful for urban American Indian adolescents to feel adept in White culture. Because these results are cross-sectional, we urge future researchers to examine hopelessness among American Indian adolescents with context-specificity and to attend to issues of tribal heterogeneity and socioeconomic status in future work on American Indian communities and mental health.
References


BigFoot, D. S., & Schmidt, S. (2006). *Honoring Children, Mending the Circle (Trauma-Focused Cognitive Behavior Therapy)*. A training and treatment manual developed by the Indian Country Child Trauma Center, University of Oklahoma Health Sciences Center,
Oklahoma City, OK.


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Table 1: Conditional Independence of Indian and White Scales in the Prediction of Hopelessness

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>beta</th>
<th>(SE)</th>
<th>95% CI</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.41</td>
<td>(0.17)</td>
<td>4.08 to 4.75</td>
<td>25.92</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Indian Cultural Adeptness</td>
<td>-0.105</td>
<td>(0.02)</td>
<td>-0.14 to -0.07</td>
<td>-6.26</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>White Cultural Adeptness</td>
<td>-0.061</td>
<td>(0.01)</td>
<td>-0.08 to -0.04</td>
<td>-5.28</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Note: Adjusted $R^2 = .16$. Betas are un-standardized linear regression coefficients. Both predictor variables were mean centered; thus, the intercept is the estimated mean of Hopelessness at the mean of the Indian and White scales. The interaction term (White * Indian scales) was not significant.
Table 2: Hopelessness by Levels of Cultural Adeptness and Residential Context

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SD)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cultural Adeptness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicultural (High Indian/High White)</td>
<td>2.68 (3.38)</td>
<td>133</td>
</tr>
<tr>
<td>Traditional (High Indian/Low White)</td>
<td>3.89 (3.46)</td>
<td>97</td>
</tr>
<tr>
<td>Acculturated (Low Indian/High White)</td>
<td>4.50 (3.84)</td>
<td>87</td>
</tr>
<tr>
<td>Marginal (Low Indian/Low White)</td>
<td>6.65 (3.71)</td>
<td>121</td>
</tr>
<tr>
<td><strong>Residential Context</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reservation</td>
<td>3.93 (3.45)</td>
<td>249</td>
</tr>
<tr>
<td>Urban</td>
<td>4.96 (4.28)</td>
<td>110</td>
</tr>
<tr>
<td>Rural</td>
<td>5.32 (4.48)</td>
<td>74</td>
</tr>
</tbody>
</table>

Note: ANOVAs and post-hoc comparisons of these means are reported in the text.
Table 3: Summary of Generalized Linear Model of Conditionally Independent Predictors of Hopelessness (N=438)

<table>
<thead>
<tr>
<th></th>
<th>Beta</th>
<th>Std Err</th>
<th>t-value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>5.45</td>
<td>0.58</td>
<td>9.36</td>
<td>&lt; 0.001 ***</td>
</tr>
<tr>
<td>Female</td>
<td>-0.89</td>
<td>0.35</td>
<td>-2.55</td>
<td>0.011 *</td>
</tr>
<tr>
<td>Indian Culture</td>
<td>-0.12</td>
<td>0.02</td>
<td>-5.05</td>
<td>&lt; 0.001 ***</td>
</tr>
<tr>
<td>White Culture</td>
<td>-0.04</td>
<td>0.02</td>
<td>-2.53</td>
<td>0.012 *</td>
</tr>
<tr>
<td>Residence [rural]</td>
<td>1.41</td>
<td>0.49</td>
<td>2.89</td>
<td>0.004 **</td>
</tr>
<tr>
<td>Residence [urban]</td>
<td>0.48</td>
<td>0.42</td>
<td>1.15</td>
<td>0.251</td>
</tr>
<tr>
<td>White:Residence [rural]</td>
<td>-0.03</td>
<td>0.03</td>
<td>-1.04</td>
<td>0.301</td>
</tr>
<tr>
<td>White:Residence [urban]</td>
<td>-0.06</td>
<td>0.02</td>
<td>-2.22</td>
<td>0.027 *</td>
</tr>
</tbody>
</table>

Note: Adjusted $R^2 = .19$, $F = 12.8$, $df = 17/424$, $p < .001$. Numeric predictor variables were mean centered.