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DISTANCE FROM FAMILY, YEARS OF LIFE ON RESERVATION/VILLAGE, LEVEL OF ACCULTURATION, GENDER, AND ACCULTURATION STRESS OF AMERICAN INDIAN/ALASKA NATIVE STUDENTS AT THE UNIVERSITY OF MONTANA

Michael Brian Trahan

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By

Michael Brian Trahan

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Approved by:

Dr. David A. Strobel, Dean
Graduate School

Gyda I. Swaney, Ph.D
Chair, Psychology

Kimberly A. Wallace, Ph.D.
Psychology

Lucian G. Conway, Ph.D.
Psychology

Patrick Weaselhead, Ph.D.
Director, UM American Indian Students Support

Abstract

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Distance from family, years of life on reservation/village, level of acculturation, gender, and acculturation stress of American Indian/Alaska Native students at The University of Montana.

Director: Dr. Gyda Swaney, Ph.D.

Acculturation is a construct that supposes that two or more cultures interact and are in conflict with one another, and an individual can determine which qualities to adhere to from each culture. Acculturation stress is a product of the acculturation process, in which an individual experiences stress as a result of the interaction of the multiple cultures upon the individual. This study examined the effects of acculturation stress on 41 (14 male and 27 female) American Indian/Alaska Native (AI/AN) university students in an effort to determine whether this stress is related to level of acculturation, years lived on an Indian reservation/Alaska village, gender, and the distance they are from their family while attending The University of Montana. The Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress scale; the Native American Acculturation Scale (N.A.A.S.), and a demographic questionnaire were employed to test these hypotheses. Reliability coefficients obtained for the N.A.A.S. and S.A.F.E. were .87 and .90 respectively. Multiple bivariate regression analyses were implemented to measure which predictors possessed significant relationships to acculturation stress. An independent samples *t*-test was employed to distinguish a gender difference in mean acculturation stress reports. No gender difference in reported acculturation stress scores were found with this sample ($t(39) = -1.68$, $p = .10$). The number of years lived on a reservation/village did not significantly relate with acculturation stress scores ($F(1,38) = 1.78$, $p = .19$). Years lived on a reservation/village did relate significantly with cultural identification on the N.A.A.S. ($F(1,38) = 27.40$, $p = .0001$). Scores in cultural identity from the N.A.A.S. did appear to possess a significant, negative relationship with reported acculturation stress scores from the S.A.F.E. ($F(39) = 12.09$, $p = .001$). The predictor, distance from family, did not appear to possess a significant relationship with reported acculturation stress scores from the S.A.F.E. ($F(1,39) = .47$, $p = .49$). In summary, students who lived more years on a reservation/village significantly identified more closely with their cultural traditions. In addition, as students identified more closely with their cultural traditions they reported significantly higher levels of acculturative stress.

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CHAPTER I

Distance from family, years of life on reservation/village, level of acculturation, gender, and acculturation stress of American Indian/Alaska Native students at The University of Montana.

American Indians have been exposed to the process of acculturation since the first encounters with non-Indians. The implementation of Indian reservations: plots of land mandated by the federal government, on which tribal members were historically forced to live, and later for some tribes, forced from, are examples of forced acculturation upon American Indians. As stated by Hagan, "it has been said that the mainstream American society's attempt to assimilate or civilize Indian people has been pursued in three main ways: private property, education and religion" (Swinomish Tribal Mental Health Project, 2002, p. 30). Living on these reservations, most tribes were forced to renounce their nomadic and self-sufficient ways of life and become reliant upon others for their survival.

The Educational Experience of American Indians

American Indian college and university students experience a similar process of acculturation when pursuing higher education. In leaving their homes, families, and culture, American Indian students are expected to fit in to vastly dissimilar methods of living and learning, thus providing a genesis for maladaptive emotional and adjustment problems.

Generally speaking, the majority culture appears to value a questioning, individualistic process of relating to professors, colleagues, and others, while American Indian students may appear to be more reserved in comparison. "Anglo students are eager to show that they know the correct answer. They want to shine. The Indian students want to "blend into the total class"

(Swisher & Deyhle, 1992, p. 89; see also Demmert 2004). Most American Indian cultures promote family, community, and tribe as a whole, as well as a non-questioning attitude of relating to the tribal elders, as a sign of respect. This representation of interpersonal behavior may present difficulty for the American Indian student when interacting with teachers in the majority culture, by virtue of being viewed as elders, either in age or in abundance of knowledge. Swisher and Deyhle (1992) stated, "in many Indian societies an individual's humility is something to be respected and preserved" (p. 90) and not flaunted as a showing of superiority, deflecting unwanted attention from the individual with a refocusing to the group.

The perception of sub-average performance of American Indians in scholastic settings can be described in Ogbu and Simons (1998) studying the cultural-ecological theory of school performance and the implications for education practices with minority students. The cultural-ecological theory posits that the scholastic performance of minorities is a product of their treatment by those in power in the educational setting or system. Also of consequence, was the perception and response of the minority individual to the system. The response style of the minority students is dependent on how the group had become a minority. Ogbu and Simons (1998) described three varying types of minority status: voluntary, autonomous, and involuntary. Voluntary immigrant minorities are described as individuals that have willingly relocated to another country in hopes of a better life. Also, voluntary minorities do not perceive the majority culture as forcing their will upon them, as they had chosen to relocate themselves. School performance for voluntary minorities are negatively impacted at first, however, improves over time, as they adjust to the cultural practices and beliefs of the majority culture. An autonomous minority was described as "people who belong to groups that are small in number" (p.5). While autonomous minorities are targets of discrimination, they are not subject to

oppressive or dominant behaviors by the majority culture. Autonomous minorities have been found to succeed educationally, at comparable levels of the majority culture students. Involuntary, or nonimmigrant minorities have been "conquered, colonized, or enslaved" (Ogbu & Simons, 1998, p. 6). They perceive the majority culture as forcing their customs upon them and tend to be "less economically successful…experience greater cultural and language difficulties, and do less well in school" than their minority cohorts (1998, p. 6) American Indians can be classified as involuntary minorities According to Ogbu and Simons (1998) definition of involuntary minorities, which stated that a "population is a minority if it occupies some form of subordinate power position in relation to another population with the same country or society" (p. 5).

Additionally, a study by LaFromboise (as cited by LaFromboise, Trimble, & Mohatt, 1990) identified concepts inherent in American Indians when engaging in psychotherapy.

> When problems arise in Indian communities, they become not only problems of the individual but also problems of the community. The family, kin, and friends coalesce into an interlocking network to observe the individual, find comprehensible reasons for the individual's behavior, draw the individual out of isolation, and integrate the individual back into the social life of the group (p. 630).

This conceptualization of some American Indian/Alaska Natives' views of themselves, as a part of the tribal community, rather than as an individual, sheds light on the difficulties American Indian/Alaska Native students are presented with when attending an institution of higher learning away from their home. American Indian/Alaska Native students represent approximately 4% of total student population at the University of Montana (2001) and represent an often-neglected population in psychology research, as American Indian/Alaska Natives comprise only 1.5% of

the total population in the United States. According to the Montana Office of the Commissioner of Higher Education statistics, approximately 416 American Indian / Alaska Native were enrolled at the University of Montana in 2001 and that number has steadily increased.

The boarding school incidents of the late 19th and early 20th century by the federal government, was an overt attempt to acculturate American Indian/Alaska Native people to resemble the majority culture, without the consideration of cultural, lingual, and familial significance. I consider this practice overt as Indian children were often taken by force from their families by government agents and transported to residential educational centers to "de-Indianize and Americanize" them (Swinomish Tribal Mental Health Project, 2002, p. 44) and removed from "culturally normative role models" (Brave Heart & DeBruyn, 1998, p. 63). Braveheart-Jordan (1995) quoted a bill from the Committee on Indian Affairs, dated 1879, which stated "best results are obtained by a removal of the children from all tribal influence during the progress of education" (p. 19). This statement only reiterates my view that the American Indian assimilation project was overt in nature. In fact, children from the same tribe, who had the ability to speak to one another in their native language, were separated in an attempt to prevent them from utilizing their native language. Therefore, they were forced to learn and speak English, as well as learn and practice Christianity. If children were heard speaking in their native language, or caught practicing cultural beliefs taught to them by their parents and their tribe, they were severely physically punished as a result (Swinomish Tribal Mental Health Project, 2002; Choney, Berryhill-Paapke, & Robbins, 1995). These former residents of boarding schools presented with various emotional and identity problems as a result of the forced acculturation imposed upon them; "many of these children were desperately lonely, frightened and suffering from acute culture shock at having to give up everything that they had known" (Swinomish

Tribal Mental Health Project, 2002, p. 44). Death was also an overwhelming reality for the children at the boarding schools. Brave Heart-Jordan (1995) quoted a Lakota survivor about his and others' experiences, "the change in clothing, housing, food, and confinement combined with the lonesomeness was too much, and in three years nearly on half of the children from the Plains were dead…" (p. 24). Survivors of the boarding school experience, upon "returning to their communities…quickly discovered that they were not 'white,' yet they were not 'Indian' either" (Garrett & Pichette, 2000 p. 3). This feeling was validated by cultural cohorts calling these individuals *apples*, meaning red on the outside and white on the inside, or being referred to as *uncle tomahawk* by non-Indian cohorts, which is interpreted as a racial slur. This presented these individuals with an untenable situation (LaFromboise, Coleman, & Gerton, 1993). As a result of their identity diffusion, "some children became ashamed of being Indian and bitterly disowned the values and lifestyle of their families. Others became rebellious, distrustful, withdrawn or depressed" (Swinomish Tribal Mental Health Project, p. 44).

Acculturation

Various authors, based on the culture being studied, have defined acculturation differently. This seems appropriate, given the idiosyncratic variances of all cultures. A study by Berry (as cited by Nwadiora & McAdoo, 1996), posited that "acculturation . . . depends on the characteristics of both cultures and the hopes and aspirations of the individual members" (p. 481). If the individual's culture held similar belief and value systems as the dominant culture, minute stress due to acculturation may occur. It is my opinion however, this is not often the rule; rather, it is the exception for many American Indian/Alaska Natives. Conversely, Garcia and Ahler (as cited by Garrett & Pichette, 2000, p. 5) defined acculturation as "the cultural change that occurs when two or more cultures are in persistent contact" with one another.

J.W. Berry, a leading researcher on acculturation (as cited by Nwadiora & McAdoo, 1996), indicated four types of acculturation: assimilation, integration, rejection (i.e., marginalization), and deculturation. Berry's description of acculturation concurs with Pawliuk et al. (1996) and adds another concept, deculturation. Deculturation occurs when the minority individual strikes outward against the dominant culture because of feelings of disarray and alienation (p. 481). Every individual involved in an acculturation process must ask themselves two important questions: "1) Is my cultural identity of value and to be retained? 2) Are positive relations with the larger dominant culture worth seeking?" (p. 481).

Berry (as cited by Nwadiora & McAdoo, 1996) indicated three process modes of acculturation (see Figure 1)

> contact period, defined as the 'initial phase wherein the two distinct cultures meet;' the next process is the conflict period, defined as the '…time when pressure to change is placed by the dominant group, which may result in a crisis of the confusion of identity;' the last process was defined as the resolution period, in which 'conflict may be resolved through the four types of acculturation' (p. 481).

Conversely, Mendoza and Martinez (as cited by Mendoza, 1989) described four different types of acculturation:

> Cultural resistance, resistance against the acquisition of alternate cultural norms, while maintaining native customs; cultural shift, a substitution of alternate cultural norms for native customs; cultural incorporation, an adaptation of customs from both native and alternate cultures; and cultural transmutation, an alteration of native and alternate cultural practices to create a unique subcultural entity (p. 373).

Some acculturation theorists viewed acculturation as a unilateral construct, in which the elevated presence of acculturation to the majority culture led to a lower presence of the native culture. Theorists provided varying, defined categories of acculturation, based upon a continuum

of how acculturated the individual had reported themselves. Pawliuk, Grizenko, Chan-Yip, Gantous, Mathew, and Nguyen (1996) identified four categories of acculturation in their study concerning children of immigrants: assimilation, integration, separation, and marginalization. Assimilation was a process which in which the individual rejected their original culture and explicitly followed practices of the dominant society. Integration was when the individual retained the original cultural identity and practices. However, the individual also accepts participation in the larger society. Separation was described as the individual retaining their original cultural identity and consequently causing the individual to reject any participation in the larger society's normative behaviors and practices. Marginalization occurred when the individual from the minority culture rejected both their original cultural practices and the cultural practices of the larger society.

Pawliuk and colleagues (1996) also indicated that two distinct models of the acculturation process are inherent in explaining this phenomenon: the unidimensional model and the bidimensional model of acculturation. The multidimensional model allows individuals to select different components of both the host and ethnic cultures in such a way that increasing identification with one culture does not require decreasing identification with the other (i.e., the Orthogonal cultural identity theory). This model would indeed be an ideal situation for individuals faced with acculturation; less stress may be reported due to the homogeneity of the majority and minority culture. This reduced number of stressors may be relevant as both cultures would view this non-discriminating concept as acceptable and reduce the burden of guilt or pressures to conform.

The unidimensional model presented by Pawliuk and colleagues (1996) is more succinct in definition. The unidimensional model represents "acculturation …as either identification with

the culture of origin or identification with the host culture" (p. 111). This view is rather dialectical in nature, in that the individual must either accept his/her own native culture completely, or entirely accept the dominant culture's values, ideals and beliefs, without any room for compromise. Differing from Pawliuk, it is my belief that acculturation and the stressors pertaining to this construct are subjective in nature. Each individual will react to various stressors in an infinite number of idiosyncratic ways. Differing members of the same family may react variantly than the other when presented with similar stressors.

Kim, O'Neil, and Owen (1996) in their study of Asian-American males defined a more specific conceptualization to the construct of acculturation by introducing gender-role acculturation. Gender role acculturation is defined as "when the dominant cultures' gender role values affect or change the individual's perception of masculinity and femininity" (p. 96). This difference in gender role assumption between cultures creates a stressor, according to Kim and colleagues (1996), and more for bicultural individuals, as they are in constant flux between familial gender role beliefs and the beliefs of the dominant culture.

There are very few views of acculturation in terms of the American Indian/Alaska Native prospective. Garrett and Pichette (2000, p. 5) identified five levels of acculturation for American Indian/Alaska Natives: traditional, marginal, bicultural, assimilated, and pantraditional. The traditional level of acculturation refers to an individual who "may or may not speak English, but generally speak and think in their native language; follow traditional values and beliefs and practice only traditional tribal customs and methods of worship." Garrett and Pichette (2000, p. 5) defined marginal acculturation as an individual who, "may speak both the native language and English; may not, however, fully accept the cultural heritage and practices of their tribal group nor fully identify with mainstream cultural values and behaviors." They operationally defined

bicultural as an individual “generally accepted by dominant society and tribal society/nation; simultaneously able to know, accept, and practice both mainstream values/behaviors and the traditional values and beliefs of their cultural heritage” (p.5). An assimilated individual is defined as a person “accepted by dominant society; embrace only mainstream cultural values, behaviors, and expectations” (Garrett & Pichette, 2000, p. 5). Finally, pantraditional individuals are defined as “assimilated Native Americans who have made a conscious choice to return to the ‘old ways’. . . generally accepted by dominant society but seek to embrace previously lost traditional cultural values, beliefs, and practices of their tribal heritage…they may speak both English and their native tribal language” (Garrett & Pichette, 2000, p. 5).

LaFromboise, Coleman, and Gerton (1993) proposed that bicultural individuals encounter various typologies of psychological distress from contact with two distinct cultures. They identified that "acculturation can be a stressful experience, reinforcing the second-class citizenship and alienation of the individual acclimating to a new culture" (p. 399). Ogbu and Matute-Bianchi (as cited by LaFromboise et al., 1993) also commented about the alternation model, which posits "it is possible and acceptable to participate in two different cultures or to use two different languages, perhaps for different purposes, by alternating one's behavior according to the situation" (p. 89). Dona and Berry (1994) studied Central American refugees and corroborated the findings of LaFromboise et al. (1993), in that they discovered that integrated (bicultural) refugees showed “fewer problems than respondents in the other ones (classes of acculturation)…. Integration was also identified as a predictor of good mental health” (p. 68).

These findings do possess validity in both theoretical and empirical perspectives. However, it is my position that American Indian/Alaska Natives that identify with lower-to-middle acculturation levels, which others might describe as “traditional (low acculturation) and

bicultural (middle acculturation) encounter shifting cultural pressures when attempting to live within the two variant cultures, as compared to studies conducted with immigrants. My position is that low-to-middle acculturated individuals have experienced more multi-–cultural (culture of origin, and the majority culture) stressors than those who identify with high acculturation (or the majority culture). The constant fluctuation between differing cultural norms, values, and practices may produce higher levels of stress and cultural identity confusion, when these levels are compared to highly acculturated cohorts. This hypothesis mirrors Krishnan and Berry's (1992) study of Asian Indians and their acculturation attitudes and their experiences of acculturation stress. They found that integrated (bicultural) Asian Indians displayed higher prevalence of "overall stress" (both psychosomatic and psychological; Krishnan & Berry, 1992, p. 211). This conceptualization is also supported in Zheng and Berry's (1991) study of Chinese college students attending Canadian universities and colleges. They found that Chinese sojourner (exchange or non-Canadian residential) students tended to experience more problems during the acculturation process than non-Chinese Canadian and Chinese-Canadian students, despite displaying a higher prevalence of positive coping skills. Additionally, Dona and Berry (1994) supposed that integration into the majority culture has been shown to produce maladaptive qualities for the minority individual, especially when the individual holds high expectations of their experience with the dominant culture.

> Exploratory analyses within Integration reveal that extreme positive attitudes are related to greater psychological and somatic stress, especially for extreme positive attitudes towards the culture of origin. It is possible that...extreme positive attitudes towards their culture of origin miss it the most and this 'homesickness' becomes a source of both psychological and somatic stress (Dona & Berry, p. 68).

Eurelings-Bontekoe, Vingerhoets, and Fontijn (1994; as cited by Verschuur, Eurelings-Bontekoe, Spinhoven, & Duijsens, 2003) defined homesickness as "a depression-like reaction to leaving a familiar environment, accompanied by ruminations about and a strong preoccupation with the former environment as well as a strong longing to return to the previous environment" (p. 758).

I believe that lower acculturated American Indian/Alaska Native university students would display similar stress experiences, as they possess high expectations of themselves concerning their abilities to transcend values and beliefs from both their own culture and, at varying degrees, the majority culture. These elevated expectations of success are expected of these students from both their native culture and the dominant culture and, I believe, elicit higher levels of acculturative stress than their acculturated cohorts.

Some theorists have posited alternative views that acculturation is not a unilateral construct, but varying levels of practicing cultural values and norms, without perceiving a deficit of practice in either culture (i.e., native or majority cultures). Choney, Berryhill-Paapke, & Robbins (1995) defined acculturation as

> the degree to which the individual (in this case, the American Indian/Alaska Native person) accepts and adheres to both majority (White/Euro-American) and tribal cultural values. It may be thought of as a response to Euro-American and traditional tribal societal values, norms, and mores across cognitive, behavioral, and affective domains…which allows for a variety of personal group-oriented ascriptions…can allow for as many ascribed identity groups as there are tribal nations" (p. 76).

Choney and colleagues (1995) view acculturation not as a dichotomous construct, but as a multi-faceted concept in which one does not accrue more of one culture to the detriment of another, but

as varying degrees of biculturalism. Additionally, they proposed that acculturation did not necessarily establish evidence of psychopathology, or that level of acculturation supposed that the majority culture is superior to the minority cultures, but can elucidate strengths and strategies of a minority individual to the adjustment of cultural values predicated by their environment.

While I would somewhat agree to what Choney and colleagues have proposed about the unilateral construct of acculturation as having merit, I would also argue that any individual only possesses a finite amount of time or resources when encountering varying cultural practices and belief systems. For the sake of simplicity, I will provide an example concerning the resource of time. It makes sense that an abundance of one aspect of an individual (time for cultural practice, time for work, time for family) takes away from and acts as a detriment in any other aspect of that individual's resources. For example, if I learned that a pow-wow or other cultural practice were occurring at the exact same time as one of my children's sporting events, I would need to determine which event to attend, as I could not attend both at the same exact time. Whatever choice that I have made will likely cause stress about missing the other event. Not attending my child's event affects my relationship with my child; not attending a cultural event, may at some level, affect my beliefs about my abilities, relationships, and cultural knowledge as a tribal member. Therefore, I have chosen a unidimensional perspective in terms of acculturation for this study. I would add that I am not inferring that a detriment is completely pejorative, only that we as human beings possess a finite amount of resources for any aspect of our lives. However, any fluctuation in choices of acculturation identity can elicit stress upon the individual, in either positively or negatively.

Acculturation Stress

Acculturation stress is a predominantly recent construct that is influenced by conflicting ideals of two variant cultures and their affect on an individual attempting to reside in both cultures. This phenomenon is prevalent in all minority cultures. It has received research attention for most minority groups in North America (Duan & Vu, 2000; Fuertes & Westbrook, 1996; Kim, O'Neil, & Owen, 1996). Padilla (1986) identified a form of psychological distress as, "stress associated with [individuals'] movement from one cultural context to another or when they find themselves in increased contact with members of other cultures" (p. 46). Padilla's study on psychological distress began the examination of distress upon individuals and eventually, the construct of acculturation stress was born.

In studying acculturative stress with the Hispanic population, Rodriguez, Myers, Morris, and Cardoza (2000) stated

> most theorists assume that acculturative stresses decrease as acculturation increases. However, informal conversations that we have had with highly acculturated Latinos suggest that they also experience acculturative stresses, but of a different nature. Many of them report stresses as a result of not speaking or understanding Spanish, or not being familiar with or active participants in Latino customs (p. 1525).

American Indian/Alaska Natives comprise approximately one and one-half percent of the total population of the United States, or roughly 4.1 million members of 561 federally recognized tribes (Substance Abuse and Mental Health Services Administration, SAMHSA, n.d.). This may explain the lack of studies done with American Indian/Alaska Natives and acculturative stress. However, given the relatively diminutive population, American Indian/Alaska Natives report more psychological and physiological concerns than any other population. Almost 13 percent of

those surveyed reported frequent mental distress (Indian Health Service, 2001). Therefore, it is important to recognize and to understand relative coping styles and strategies of American Indian/Alaska Natives to acculturative stress, and other stressors, to better implement culturally appropriate interventions and procedures.

The consensus of researchers in the area of acculturation stress is that individuals falling on either side of the acculturation spectrum (i.e., pantraditional and traditional) tend to report higher incidence and higher levels of acculturation stress as compared to bicultural individuals. I agree that traditional or lower acculturated individuals (traditional and bicultural) would report higher amounts of acculturative stress. However, I argue that highly acculturated individuals report less acculturative stress, as they have determined that the majority culture is a better position for them. Therefore, they would not experience as much conflict about cultural practices or beliefs and would report lower amounts of acculturative stress as a result.

> Therefore, I have chosen this definition for acculturative stress,
> one kind of stress, that in which the stressors are identified as having their source in the process of acculturation, often resulting in a particular set of stress behaviors that include anxiety, depression, feelings of marginality and alienation, heightened psychosomatic symptoms, and identity confusion (Williams & Berry, 1991, p. 634).

Gender and Acculturation Stress

There also appears to be evidence that acculturation stress is experienced and reported at higher levels based upon the sex of the individual. A study conducted by Yu (1984) explored acculturation stress within a population of Chinese American families. Yu discovered a gender difference in accordance to general life dissatisfaction. The more acculturated males in Yu's study reported less life dissatisfaction, and the less acculturated females reported more

dissatisfaction with life (p. 93). These findings are important in showing that life dissatisfaction was related to both gender and acculturation level. My position concerning gender is counter to Yu's findings, in that I believe that males, regardless of acculturation level, will report higher levels of acculturative stress. I also posit that those at one end of the spectrum of acculturation (traditional individuals) and middle of the acculturation spectrum (bicultural individuals) will report higher levels of acculturative stress than those who score at the opposite end of the spectrum of acculturation (highly acculturated). The traditional and bicultural individuals are encountering the interaction between their culture of origin and the majority culture and experiencing higher levels of acculturative stress.

Rodriguez, Myers, Morris, and Cardoza (2000) studied the adjustment measures of Hispanic college students in settings in which the students either represented a majority or minority in terms of population. They posited that the status of representation of the college population and acculturative stresses would increase the prevalence of psychological maladjustment. Acculturation stress can be caused by numerous factors that may be specific to an ethnic minority culture. For example, stressors experienced by minorities may involve gender role conflicts or conflicts associated with how an individual was raised, either in a collectivistic society or in an individualistic society.

Given the inherent differences between minority cultures as a whole, and consequently, when observed under more scrutiny, it is of no surprise that many emic (i.e., cultural specific) measures of acculturation and acculturation stress exist. Berry (1999) described emic as "local knowledge and interpretation…of psychological phenomena, and for understanding them in local cultural terms" (p. 166) or "culturally specific, applied to one language or culture at a time" (1989, p. 722).

Based upon Berry's concept, an emic (i.e., cultural specific) scale was developed, particular to the Asian population: the Suinn-Lew Acculturation Scale (Suinn, Rickard-Figueroa, Lew, & Vigil, 1987). The Hispanic population possesses a number of measures, most notably the Acculturation Rating Scale for Mexican Americans (Cuellar, Harris, & Jasso, 1980).

Hypotheses

1. It was hypothesized that a significant, positive relationship would occur between the predictor (years of life on a reservation/village) and the criterion (S.A.F.E. score) variables, in that AI/AN undergraduate students at The University of Montana, who have lived more years on a reservation/village, would report higher levels of acculturation stress on the S.A.F.E.
2. It was hypothesized that a significant, negative relationship would occur between the predictor (years of life on reservation/village) and the criterion (N.A.A.S.) variables. More specifically, that AI/AN undergraduate students at The University of Montana, who had lived more years on a reservation/village, would score lower on the N.A.A.S. (low acculturation).
3. It was hypothesized that the predictor (N.A.A.S.) and criterion (S.A.F.E.) variables would display a significant, negative relationship, in that AI/AN undergraduate students in this sample at The University of Montana, who scored lower on the N.A.A.S. (low acculturation) would also report higher levels of acculturative stress, as measured by the S.A.F.E. (See Figure 2)
4. It was hypothesized that a significant, negative relationship would occur between the predictor variable, distance from families (Proximity to family) and the criterion variable, acculturative stress, as measured by the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress scale. More specifically, that AI/AN students, who attended school farthest from their families, would report higher levels of acculturative stress than their AI/AN counterparts who were in closer proximity to their families.

5. It was hypothesized that American Indian/Alaska Native male students would report higher levels of acculturative stress than their female cohorts.

Chapter II

Method

Participants

There were 44 participants (28 females, 16 males) for this study. Three participants (1 female and 2 males) were excluded from the study, as they did *not* identify as an American Indian or Alaska Native, leaving a total of 41 (27 females, 14 males) participants. Forty one participants were enrolled members and first- or second-generation descendents of federally recognized American Indian/Alaska Native tribes and students at the University of Montana aged 18 years or over.

Measures

Demographic Questionnaire. The participants were given a general questionnaire to acquire basic demographic information (see Appendix A). The subject matter that was included in this questionnaire were: the age of the participant, the gender of the participant, the American Indian tribe or Alaskan village/corporation that they are a member, whether the participant lived most of their lives on an American Indian/Alaska Native reservation/village, and the distance, in miles from The University of Montana to their family and from their home reservation/village (if the distances were different).

Social, Attitudinal, Familial and Environmental Acculturation Stress Scale (S.A.F.E.). In measuring acculturative stress on this sample, the S.A.F.E. Scale was implemented (see Appendix C). There are two forms of the S.A.F.E. scale: a 24-item Likert scale introduced by Mena, Padilla, & Maldonado (1987) and a 60-item version composed by Padilla et al. (1985). The responses ranged from 0 to 5: 0 = not applicable, 1 = not stressful, and 5 = extremely stressful.

The ranges of scores possible for the S.A.F.E. scale are from 0 (no acculturative stress) to 120 (very high acculturative stress). Usually, the median score for the sample is obtained, and is utilized as the cutoff point for scoring individual response sets as either low acculturation stress (below the median score), or higher acculturative stress (scores above the median score). For this study, the scores were kept as continuous data, as the scoring for this measure is quantitative in nature. Since scores in this sample ranged from two (2) to seventy (70) on the S.A.F.E. scale, they were taken at face-value and reported as such. Higher scores reported on the S.A.F.E. scale indicated more acculturative stress and dichotomizing the quantitative data would not serve the purposes of this study. For the purpose of this study, the 21-item S.A.F.E. scale, adjusted for use with American Indian/Alaska Natives by Glass (1996) was implemented to measure the level of acculturative stress experienced by American Indian/Alaska Native undergraduate students. Unfortunately, the S.A.F.E. scale has not been studied with the American Indian/Alaska Native population in terms of psychometric validity and reliability, but this study can assist to impart more information about these measures and their applicability with this sample of AI/AN students at The University of Montana.

Although this measure was developed to identify the stressors inherent in Hispanic cultures, it was proposed that this scale may accurately produce similar results with an American Indian/Alaska Native sample, as per similarities between Hispanic and American Indian/Alaska Native cultures. Glass (1996) made revisions to the S.A.F.E. acculturation scale, in the hopes of producing a scale that was more relevant to the American Indian/Alaska Native beliefs and values, without affecting the overall validity of the items in the scale. Glass (1996) altered question 18, which stated, “loosening ties with one’s country,” as she felt that the context was “inappropriate” and reworded the sentence to read, “loosening ties with one’s

village/community" (p. 55). Glass omitted two of the original questions from the original S.A.F.E. Acculturation Scale: "It bothers me that I have an accent" as most Alaska Natives primarily speak their native language and speak with alternate rhythms and timing than the English language; and "It is difficult for me to 'show off' my family," as boasting is not considered appropriate in the Alaskan culture, as it places the individual above the family or the tribe.

The S.A.F.E. acculturation scale is composed of four factors, e.g., social, attitudinal, familial, and environmental, to ascertain the level of acculturation stress within individuals of a minority group. According to Mena et al. (as cited by Fuertes & Westbrook, 1996) the environmental factor includes items that describe "subtle and overt acts of racism, sentiments of opposition to the basic rights of citizenship of (the minority population in question), and feeling impeded by barriers that must be transcended if progress is to be made in the (majority culture)" (p. 72). Items 1, 2, 5, 7, 9, 11, 14, 15, 16, 17, 20, 21, and 23 make up the environmental factor. The attitudinal factor (Mena et al.) consists of items (e.g., 8, 18, 19, and 24) that describe attitudes that could occur as a consequence of being separated "from separation from family, friends, and culture" (p. 72). The social factor incorporates items "that relate to the quality of immediate interpersonal relationships…and difficulties in speaking English, understanding English speakers, being sociable, making friends, and feeling at home" (p. 72) and include items 10, 12, 13, and 23. Finally, the familial factor, consisting of items 3, 4, and 6, contains items that "reflect conflicts between the personal values, expectations, and aspirations of the (individual), and those in their family" (p. 72).

The Native American Acculturation Scale (N.A.A.S.). The Native American Acculturation Scale (N.A.A.S., Garrett & Pichette, 2000) is a 20-item, Likert scale (1= low acculturation, to 5

= high acculturation). The N.A.A.S. (Appendix C) consists of items that pertain to language, identity, friendships, behaviors, generational/geographic background, and attitudes of the American Indian/Alaska Native culture. A summation of scores pertaining to the twenty-items is obtained and divided by the total number of items (20) to obtain a mean acculturation score. A mean score of <3 indicates an individual that is of low acculturation, and a mean score of >3 indicates an individual that is highly acculturated.

To obtain the overall mean cutoff scores, Garrett & Pichette (2000) employed the services of 10 experts from various Native American organizations, including: the Indian Health Service, the Native American Research and Training Center, Parent Connection, and the University of North Carolina at Pembroke, who represented a variation of tribal systems including: Paiute, Chippewa, Comanche, Creek, Eastern Band of Cherokee, Cherokee Nation, Crow and Lumbee (p. 7). For the purposes of this study, each individual score was left as a "continuous variable," as the overall score was not divided by the total number of items in the measure (21).

The N.A.A.S. was patterned similarly to other Emic (i.e., culturally specific) acculturation scales, such as the Acculturation Rating Scale for Mexican Americans (ARSMA) and the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Atkinson, Lowe, & Matthews, 1995; Cuellar, Harris, & Jasso, 1980; Suinn & colleagues, as cited by Garrett & Pichette, 2000, p. 7).

Procedure

The participants were recruited by contacting all American Indian/Alaska Native organizations on campus. These organizations were presented the basic premise of this study: to identify a relationship between cultural affiliation and acculturative stress in American

Indian/Alaska Native students at the university. It was also explained that the results from this study could be later examined by others at the university to better implement or improve upon programs available for American Indian/Alaska Natives transitioning to The University of Montana. The organizations recruited were: Native American Studies (N.A.S.), School of Journalism, Training for American Indian/Alaska Natives in Environmental Biology (T.R.A.I.N.), American Indian Business Leaders (A.I.B.L.), the American Indian Science and Engineering Society (A.I.S.E.S.), the undergraduate Indians into Psychology (InPsych) Program, and the KYI-YO Club, the American Indian/Alaska Native student organization on campus. Recruitment posters (see Appendix D) were placed in meeting areas for the clubs identified above, as well as the University Center, and on the Psychology Department's bulletin boards in the Skaggs building on campus.

Participants were also recruited through the Introduction to Psychology 100 participant pool at the university. The participants utilized a sign-up sheet to participate in the study at a particular time during the week.

Participants enrolled in the Psychology 100 course were given a choice to receive *either* two experimental credits toward the Introduction to Psychology 100 class experimental requirements, or an entry into a drawing for one of four (4) twenty-five dollar ($25) prizes for their participation. Participants that were not enrolled in the Psychology 100 class, were entered into the drawing for one of four (4) twenty-five dollar ($25) prizes. There were a total of twenty (20) participants who choose to be included in the cash drawing reimbursement option. Solely for the purpose of the cash drawing, each of the participants who chose the drawing option were assigned a number that was only displayed on the reimbursement checklist form (see Appendix E). A number randomizer was utilized to determine the winners of the four cash prizes. The

winners were notified by the information given on the reimbursement checklist form. After the notification of the winners of the four cash prizes, all forty-four participants' reimbursement checklists, including the three excluded participants, were destroyed to preserve the confidentiality of the participants.

Analysis

Hypothesis 1 - A bivariate regression analysis was utilized to determine whether there was a significant relationship between that the predictor, the numbers of years lived on an Indian reservation/Alaska village and the criterion, acculturative stress scores, as measured by the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Stress Scale. It was hypothesized that a significant, positive relationship would occur between the predictor (years of life on a reservation/village) and the criterion (S.A.F.E. score) variables, in that American Indian/Alaska Native undergraduate students at The University of Montana, who have lived more years on a reservation/village, would report higher levels of acculturation stress on the S.A.F.E. The strength and direction of the proposed relationship was determined by examining the slope (*B*) in the regression analysis. A slope that was closer to plus-or-minus one (-1 to +1), indicated a stronger relationship between the predictor and criterion variables.

Hypothesis 2: A bivariate regression analysis was utilized to test the significance of the relationship between the predictor variable, the number of year lived on an Indian reservation/Alaska village, and acculturation level as measured by the Native American Acculturation Scale (N.A.A.S.). It was hypothesized that a significant, negative relationship would occur between the predictor (years of life on reservation/village) and the criterion (N.A.A.S.) variables, in that AI/AN undergraduate students at The University of Montana, who had lived on a reservation/village longer, would score lower on the N.A.A.S. (low acculturation).

The strength and direction of the proposed relationship was determined by examining the slope (*B*) in the regression analysis.

Hypothesis 3: A bivariate regression analysis was utilized to test the significance of the relationship between the predictor, scores on the N.A.A.S., and the criterion, acculturative stress, as reported on the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress scale. It was hypothesized that the variables would display a significant, negative relationship, in that AI/AN undergraduate students in this sample at The University of Montana, who scored lower on the N.A.A.S. (low acculturation) would also report higher levels of acculturative stress, as measured by the S.A.F.E. The strength and direction of the proposed relationship was determined by examining the slope (*B*) in the regression analysis.

Hypothesis 4: Another bivariate regression analysis was utilized to test the significance of the relationship between the predictor, distance from families, and the criterion, acculturative stress as reported on the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress scale. Specifically, in that AI/AN students, who attended school farthest from their families, would also report higher levels of acculturative stress than their American Indian/Alaska Native counterparts who were in closer proximity to their families. The strength and direction of the proposed relationship was determined by examining the slope (*B*) in the regression analysis.

Hypothesis 5: An independent samples *t*-test was implemented to test the final hypothesis which predicted a gender differences in the levels of reported acculturative stress. It was hypothesized that American Indian/Alaska Native male students will report higher levels of acculturative stress than will their female cohorts. The means, medians, and standard deviations will be computed for all of the completed measures: general questionnaire, (i.e., miles from

family, miles away from tribe, and the number of years the participant lived on and off of an American Indian reservation/Alaska Native village), the N.A.A.S., and the S.A.F.E. Acculturation Stress Scale to obtain descriptive statistics, as well as a general range of scores for all three measures.

The predictor variables for this study were: proximity to home (miles from family), years of life on an Indian reservation/Alaska Native village (live on or off reservation/village), and acculturation identity (low acculturation, bicultural, and high acculturation). The relationships between the predictor variables and the criterion variable, acculturation stress scores, as measured by the S.A.F.E. scale were examined as well. In addition, one of the predictor variables (N.A.A.S.) also served as a criterion variable when examining the relationship between it and the predictor variable, years lived on an Indian reservation/Alaska Native village.

The effect sizes of all of the predictor variables: years lived on a reservation/village, distance from family, gender and level of acculturation were configured to examine the effect(s) of the predictors upon acculturation stress levels derived from the S.A.F.E. Acculturation Scale.

Effect sizes pertaining to acculturation stress and the predictor variables contained in this study have not been established in previous research. It was postulated that individual effect sizes for the predictor variables: born and raised on a reservation/village, proximity from home, gender, and level of acculturation, would approach .25, thus each predictor would account for approximately 6% of the variance of the criterion variable of acculturative stress measured by the S.A.F.E. acculturative stress scale. It was also postulated that the individual effect size for years of life on the reservation/village and the criterion, the scores on the N.A.A.S., would also approach .25, which would account for approximately 6% of the variance for scores on the

N.A.A.S. It should be noted that the anticipated effect sizes were an ideal effect size estimate and were not based on previous research, as there is none.

Chapter III

Results

Based on demographic data obtained from the general questionnaire, it was proposed that this sample was representative of the university American Indian/Alaska Native population, which is approximately 4% of the overall student population at the University of Montana. The participants were compared by their relative proximity from their home, whether they lived most of their lives on an American Indian/Alaska Native reservation/village, by the reported acculturation level, and gender in regard of the levels of reported acculturation stress.

The participants consisted of 36 enrolled, 5 first-generation descendents of federally recognized tribes/villages from the United States. The mean age for this sample was 23, with a median age of 21, standard deviation of 5.8, and the ages ranged from 18-42.

In terms of school year, the sample was comprised of 16 participants who identified as freshman, 8 as sophomores, 7 juniors, 9 seniors, and 1 5th year senior. The distance from family and the distance from home are constructs that overlap, but do not necessarily carry the same meaning. The overall range of distance from family was 0 – 3000 miles, with a mean distance between the participants and their families were 403.8 miles. For example, an American Indian/Alaska Native person may live on a reservation/village, but the reservation/village may not be affiliated with their tribal identification. They may live on the reservation/village because of marriage to a member of that tribe, educational endeavors, or an occupation. Also, the individual's family may live on a separate reservation/village or live off of a reservation/village. Therefore, the distance from their families of origin may be different when compared to the distance from their tribal system. For this reason, distance from family and distance from tribe are two separate constructs. While the ranges for these two variables were the same for this

sample (0-3000 miles), Table 1 indicates a difference between the mean, median, and standard deviations for the variables.

Table 2 shows the mean scores for the overall S.A.F.E. Acculturation Stress scale scores, the raw N.A.A.S. scores for all of the participants, as well as the means for males and females for both measures. The overall mean score on the S.A.F.E. scale was 31.73, with a standard deviation of 17.3. The overall N.A.A.S. scores ranged from 44 – 86 and had an overall sample mean of 62.3 and standard deviation of 10.5, respectively (see Table 2). Table 2 also displays the overall S.A.F.E. mean and standard deviation for this sample. The means, medians, ranges and standard deviations for the age, distance from family, and distance from tribe are given in Table 1.

Although the size of the sample was small (n = 41), alpha reliability coefficients were conducted for both the N.A.A.S. and the S.A.F.E. scales. The obtained alpha coefficients were robust, despite the small size of this sample (N.A.A.S. = .87, S.A.F.E. = .90).

Testing hypothesis 1, the significance and direction of the relationship between the predictor variable, the numbers of years lived on an Indian reservation/Alaska village and the criterion, acculturative stress scores, as measured by the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Stress Scale. It was hypothesized that a significant, positive relationship would occur between the predictor (years of life on a reservation/village) and the criterion (S.A.F.E. score) variables, in that AI/AN undergraduate students at The University of Montana, who have lived more years on a reservation/village, would report higher levels of acculturation stress on the S.A.F.E.

It did appear that the number of years AI/AN undergraduate students have lived *on* a reservation/village did report a higher, although not statistically significant, amount of

acculturative stress as measured by the S.A.F.E. scale ($F(1,38) = 1.78$, $p = .19$), with an effect size .045 and a variance of .0002 for the S.A.F.E. (see Table 3). Figure 3 shows the positive relationship between the predictor, years lived on a reservation/village, and the criterion, the acculturation stress scores from the S.A.F.E.

For hypothesis 2, the significance and direction of the relationship between the predictor variable, the number of year lived on an Indian reservation/Alaska village, and the criterion variable, the acculturation level as measured by the Native American Acculturation Scale (N.A.A.S.) was examined utilizing a bivariate regression analysis. It was hypothesized that a significant, negative relationship would occur between the predictor (years of life on reservation/village) and the criterion (N.A.A.S.) variables, in that AI/AN undergraduate students at The University of Montana, who had lived more years on a reservation/village, would score lower on the N.A.A.S. (low acculturation). It appeared that there was a significant, negative relationship between the years lived on a reservation/village and scores on the N.A.A.S., in that, American Indian/Alaska Native students, who lived most of their lives on a reservation/village achieved lower scores on the N.A.A.S. ($F(1,38) = 27.40$, $p = .0001$), with an effect size .42 (Table 4) and a variance of .18 for the N.A.A.S. Figure 4 shows the negative relationship for years of life on the reservation/village and scores on the N.A.A.S., as well as the strength of the relationship between the two variables ($B = -.804$). This finding shows that participants who lived more of their life on a reservation/village identified with lower acculturation than their counterparts who did not live as long on a reservation/village.

To test hypothesis 3, the significance and direction of the relationship between the predictor variable, scores on the N.A.A.S. and the criterion variable, acculturative stress as reported on the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress

scale was examined utilizing a bivariate regression analysis. It was hypothesized that the variables would display a significant negative relationship, in that AI/AN undergraduate students in this sample at The University of Montana, who scored lower on the N.A.A.S. (low acculturation) would also report higher levels of acculturative stress, as measured by the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress scale. It appeared that the N.A.A.S. was a good predictor for scores on the S.A.F.E. scale ($F(39) = 12.09$, $p = .001$). There was a strong, negative, significant relationship was found for the N.A.A.S. and the S.A.F.E. scale ($B = -.804$). Figure 5 shows a scatterplot graph, which depicts the relationship strength between the N.A.A.S and S.A.F.E. scale. Table 3 shows the effect size, variance and slope for the predictor (N.A.A.S) and the criterion (S.A.F.E.) variables. The effect size for the N.A.A.S. was .24, which indicated that roughly 6% of the variance for the S.A.F.E. scores could be explained by the N.A.A.S.

To test hypothesis 4, a bivariate regression analysis was implemented to examine the significance and direction of the relationship between the predictor variable, distance from families and the criterion variable, acculturative stress as reported on the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) acculturation stress scale. It was hypothesized that a significant, negative relationship would be discovered, in that AI/AN participants who were farther from their family while attending school would report higher levels of acculturative stress. It appeared that the distance from family variable was not a significant predictor of S.A.F.E. scale scores with this sample. The mean distance between the participants and their families was 403.8 miles, with a standard deviation of 522.5 miles. The overall range of distance from family was 0 – 3000 miles (see Table 1). This high variability may have an effect on the

significance of the relationship between the predictor and criterion variables, which I will discuss later.

It was also found that when the distance from family variable was examined, there was a low, positive, non-significant relationship ($F(1,39) = .47$, $p = .49$) with reported acculturation stress scores and only accounted for approximately 1% of the variance (effect size = .12, variance = .014) for scores on the S.A.F.E. scale, as indicated in Table 3 and Figure 6.

As for hypothesis 5, which a gender difference was examined in reported acculturative stress scores on the S.A.F.E. scale. It was hypothesized that males would report higher levels of acculturative stress than females. The mean raw S.A.F.E. scale score compared by the gender of participants was 25.6 for males, and 34.9 for females respectively. The overall S.A.F.E. acculturation stress scores ranged from 2 – 70.

An independent samples *t*-test was also employed to determine whether a gender difference in mean acculturation stress scores were present for this sample. No gender difference was found for reported acculturation stress scores with this sample ($t(39) = -1.68$, $p = .10$). Figure 7 shows a bar graph of the median scores on the S.A.F.E. scale for males and females in this sample. Figure 8 also shows the 95% confidence interval scores on the S.A.F.E. acculturative scale scores for males and females in this sample.

Separate bivariate regression analyses were conducted to evaluate how well the predictor variables: years of life on a reservation/village, scores on the N.A.A.S., the distance from family, and the gender of the participants predicted the criterion variable of reported acculturative stress as measured by the S.A.F.E. acculturative stress scale. In Table 5 the indices are presented to indicate the relative strength of the individual predictors. Three of the four bivariate correlations between the predictor variables and the reported scores on the S.A.F.E. Acculturation Stress

Scale were negative as was expected. However, only one of the indices were statistically significant ($p < .05$).

Chapter IV

Discussion

The alpha coefficient obtained in this sample for the S.A.F.E. was robust. The obtained alpha from this sample for the S.A.F.E. (.90 from an n = 41) was similar to the alpha coefficients found by Mena (1987) and Fuertes and Westbrook who found a reliability coefficient of .89. Additionally, the alpha derived from this sample for the N.A.A.S. was robust as well (.87). The alpha coefficients from this sample appeared to indicate that the S.A.F.E. and the N.A.A.S. are reliable and stable measures to use with this type of sample (AI/AN undergraduate students), although an examination with a proper sized sample would produce more of a true reliability coefficient.

When examining the first hypothesis, the expected result was American Indian/Alaska Native students at The University of Montana would report higher levels of acculturation stress as a result of living most or all of their lives on an Indian reservation or in an Alaskan Village. This premise is based on the persistent conflict of values, beliefs, and customs inherent with individuals who previously resided in a collectivist society and that individual's perception for the need to acquiesce to the majority, individualistic society's norms and beliefs in order to achieve success in the new culture. This view was posited by Berry's (1987) three processes of acculturation, specifically, the contact and conflict periods (as cited by Nwadiora & McAdoo, 1996 p. 481; Young, Ekeler, Sawyer, & Prichard, 1994). For this study, living on the reservation/village did not appear to be a significant predictor of overall acculturative stress scores. This finding did not lend support to the conceptualization that individuals who have lived on a reservation/village would report higher amounts of acculturative stress when they move off of the reservation/village. It may be that the sample size was too small to detect a noticeable

effect on reports of acculturative stress. Increasing the sample size may remedy these conflicting findings.

When testing hypothesis 2 it was expected that the American Indian/Alaska Native students who have lived most of their lives on a reservation/village were predicted to score lower on the N.A.A.S. It was found that American Indian/Alaska Native students, who lived more years on a reservation/village scored significantly lower in the N.A.A.S., meaning they were of low acculturation. This finding does appear logical, when an individual is approximate to and actively engulfed in cultural practices, their acculturation identity would display such an influence so that they would identify with their culture of origin (lower acculturation).

For hypothesis 3, it was expected that individuals who were less acculturated (lower scores on the N.A.A.S.) would report higher levels of acculturative stress on the S.A.F.E. scale. This assumption refutes the findings of Rodriguez and colleagues (2000) in which they discovered that assimilated Hispanic students reported higher levels of acculturative stress as a function of not understanding customs or the language of their native culture (p. 1546). In this study, American Indian/Alaska Native students who scored lower on the N.A.A.S. (low acculturation), reported higher levels of acculturative stress on the S.A.F.E. scale. Additionally, Romero and Roberts (2003) found that U.S. born, Mexican-American adolescents "reported more stress because of the need to speak better Spanish and because they felt as though they could not be like American kids" (p. 179). The acculturated individual may have limited or no conflict about their decision of cultural identification and therefore, report less stress associated with their decision of cultural identity.

The present data partly reflects findings from previous research in that acculturation level is a good predictor of reported acculturative stress. It did not, however, reinforce findings that

individuals who identify as lower in the unidimensional acculturation spectrum will report less acculturative difficulty than their acculturated cohorts (LaFromboise, Coleman, & Gerton, 1993; Dona & Berry, 1994). It is difficult to determine whether bicultural individuals scored differently from their acculturated counterparts, as categorizing the data from this small sample (n = 41) could cause the reviewer to miss possible important findings. Acculturation level, as measured by the N.A.A.S., was a good predictor (p =.001) of acculturation stress, as measured by the S.A.F.E. and accounted for almost 6% of the variance. This data is promising and further study is warranted to decipher whether the effect size of cultural identity upon acculturation stress could be positively affected by an increase in sample size.

Additionally, research on culture identification has shown that higher adherence to the culture of origin was a protective factor against psychopathology, namely depression (Rieckman, Wadsworth, & Deyhle, 2004). This aspect was not studied with this sample. However, identifying protective factors with AI/AN students, in relation to their levels of acculturation, could be a future direction for study.

These findings also *partially* reflect (Williams & Berry, 1991, LaFromboise, Coleman, & Gerton, 1993; Dona & Berry, 1994) *and* dispute (Krishnan & Berry, 1992) the existing research that bicultural individuals tend to report less acculturative stress than students who identify as either traditional or as acculturated. Williams & Berry (1991), La Fromboise, et al, (1993), and Dona & Berry (1994) all found that bicultural individuals reported less acculturative stress than their counterparts. Alternatively, Krishnan & Berry (1992) reported that bicultural individuals reported more acculturative stress than their traditional or acculturated cohorts. Again, I say partially reflect previous findings in that lower acculturated (traditional, bicultural) individuals reported more acculturative stress than highly acculturated individuals. Due to the

low sample size, it is difficult to determine whether a difference was present in the unidimensional categories of acculturation, proposed by previous theorists (i.e., traditional, bicultural, and acculturated). A larger sample might parse out these differences in future studies.

For hypothesis 4, in which examined whether distance from family was a good predictor for acculturative stress, as reported by the S.A.F.E. scale, distance from family did not appear to significantly predict acculturative stress scores. Again, distance from family does not necessarily possess the same meaning as the distance from tribe. A relatively positive, moderate, albeit non-significant (p = .10) relationship between reported acculturation stress scores and distance from family was found (see Table 5). This finding did not lend support to the premise that the farther the distance one is from their primary support group, the more stress they may encounter. A study by Liu, Uchiyama, Okawa, & Kurita (2000) examined Chinese adolescents and found that the distance from their home and their school, as well as life stressors were related to loss of sleep. The disappointing finding fails to provide support that distance from home can lead to stressful experiences, by Liu et al., (2000). The primary support system is compromised by the distance from family and can lead to more stressful experiences. The lack of significance for the predictor, distance from family, and acculturative stress scores might be explained by technological and communication advances in the past decade. With the technological evolution of electronic mail, cellular phones, and web cameras, an individual can feel that they are closer to their support group and possess the ability to contact any support member at any time. This might be a plausible explanation for the minute relationship and variance explained by the variable distance from family. Another possible reason for the non-significant finding in the study might be due to the extreme variability between the ranges of scores. For example, one participant indicated that their family was very close in proximity (0 miles), while another

participant stated they were 3000 miles away. Such a vast difference in scores can greatly affect the relationship between the variables. A future study with a bigger sample size could alleviate the problem of extreme variability of scores. More study is warranted on this relationship between distance from family and acculturation stress scores, as many American Indian/Alaska Native students attend institutions of higher learning far from their families. Perhaps the increased usage of the communication technology currently available by students to keep in contact with family for support while away for their education, contributed to the non-significant relationship for these two variables. Further study is warranted to determine whether communication technology might have a mediating effect upon distance from family and reports of acculturative stress.

When testing hypothesis 5, for a gender difference in acculturative stress levels, positing that American Indian/Alaska Native males would report higher levels of acculturative stress when compared to their female counterparts. However, the results of this study failed to show any gender difference in reported acculturative stress. Figure 7 shows that female American Indian/Alaska Native students exhibited higher median S.A.F.E. acculturation stress scale score than their male counterparts, although the difference did not approach significance. In addition, figure 8 indicates the 95% confidence intervals for the S.A.F.E. scores for males and females in this sample. The difference between male and female S.A.F.E. scores appears large, with at least 10 points separating the midpoints of the confidence intervals. Again, an increased sample size could magnify this perceived difference to the point of significance. These findings did not support the results from a study conducted by Rotenberg, Kutsay, and Venger (2000) in which they studied USSR immigrants in Israel. They found that overall distress was reported more for women, especially when they did not believe that they were integrated into the majority society.

Additionally, a study of Vietnamese-American college students by Nguyen and Peterson (1992) produced similar results. In a preceding study by Nguyen and Williams (1989), they proposed that the difference in depressive symptoms between Vietnamese-American males and females might be explained by the practice that "men and women are often accorded differently" (p. 69). This might be the case in this study. Most tribal systems are matriarchal in nature, meaning that the women are most looked upon for support of the system. When encountering the non-Indian society, females may not be seen as decision-makers and guides of the system, producing stress for the females, as they might not be accustomed to this particular role when their society. Conversely, males are more often than not, expected to assume this role of decision-making and leadership in the majority culture. The difference in role expectations between the disparate cultures may have elicited the higher reports of acculturation stress by American Indian/Alaska Native females in this sample, assuming that their culture of origin was matriarchical. These findings are similar to what Rodriguez et al. (2000) discovered. They found that Hispanic female college students exhibited a higher prevalence of maladjustment than did the Hispanic male students (p. 1544) when introduced to an overall environment that is different than their culture of origin.

Limitations

There were many limitations inherent in this study. One of the most important limitations was that a psychometric evaluation has not yet been performed on the S.A.F.E. Acculturation Stress Scale (Padilla, 1985) for the use of this measure with the American Indian/Alaska Native student population. While this measure has been shown to be valid with the Hispanic, Asian American, and international student populations (Mena and colleagues, as cited by Fuertes & Westbrook, 1996, p. 68) its ability to measure American Indian/Alaska Native students' acculturative stress has yet to be determined.

Another limitation of this study was that the results were not representative of the American Indian/Alaska Native population, as a whole. The information discovered can only be generalized to American Indian/Alaska Native students at The University of Montana and not to all American Indians in Montana, due to the heterogeneity of customs and beliefs of American Indian/Alaska Native tribes in the United States.

An additional limitation for this study was that only one Alaska Native participated in this study, making it difficult to decipher any possible differences between Northern Plains American Indian tribes and Alaska Natives. It is assumed that the differences would not be any more noticeable than the differences between American Indian/Alaska Native tribes. Recruiting and/or conducting a similar study with a sample of predominantly Alaska Natives could provide additional information about the similarities and/or differences that might be inherent between American Indian tribes and Alaska Natives.

Another important limitation to this study is the small sample size (n = 41). A greater sample size could provide the power needed to elucidate gender differences in reported acculturative stress, as well as the possible relationship between the years lived on a reservation/village and reported acculturative stress scores.

A final limitation of this study was that the results of this study could not be generalized to all tribes in the United States and Canada for reasons as explained earlier. However, the findings from this study can be generalized to Montana tribes in a school setting, as they were all represented in this sample.

Future Directions

The directions that future research may follow in accordance with this study are numerous. Potentially the most important, is to psychometrically evaluate the S.A.F.E.

Acculturation Stress Scale for implementation with an American Indian/Alaska Native sample. Although the alpha coefficients for the N.A.A.S. and the S.A.F.E. were robust (N.A.A.S. = .87, S.A.F.E. = .90), the sample size from this study (n = 41) was relatively too small to propose these coefficients as true indicators of reliability. However, the coefficients obtained do appear to mirror previous coefficients found for the S.A.F.E. and add support for the N.A.A.S. These measures should be evaluated for use with each tribal system in the United States. It is important to realize that the evaluations with individual tribal systems will only produce "Tribal-specific generalizability" for that measure, not the global generalizability that research prefers. Nonetheless, the information that would be generated would be welcomed, considering the diminutive amount of studies available that involve American Indian/Alaska Natives.

Another possible study that may be derived from this study would be to measure acculturative stress with a more representative sample of American Indian/Alaska Natives to determine whether various factors may elicit an effect, such as: age, gender, socioeconomic status, level of education, tribal, and generational differences to uncover possible covariations of the infinite amount of predictor variables.

Yet another study of interest may be to determine whether various electronic means of communication, such as: electronic mail, the accessibility of cellular phones, web cameras, and other technological advances may elicit an effect on acculturative stress by figuratively reducing the distance between the individual and their families.

Also, due to previous research which proposed that bicultural individuals often report lower acculturative stress, and conversely, that individuals that identify as either assimilated or traditional report higher amounts of stress (Garrett & Pichette, 2000) it may be of interest to search for possible non-linear relationships between the level of acculturation and acculturative

stress reported. Given these previous results, it seems likely that a non-linear relationship is present and to study this relationship may benefit the theory of acculturation and acculturative stress by introducing new ideas and shifting the paradigm of this construct.

Additionally, a study examining the multidimensional theories of acculturation and cultural identity, (i.e., the Orthogonal Cultural Identification Theory) with this population may be useful in establishing and/or testing measurement tools that were predicated upon the orthogonal construct. This data may, in turn, assist in providing adaptive programs and support services for incoming minority students.

It may be of interest to examine possible differences of reported acculturation stress for students who attend institutions of higher learning at Tribal Colleges and those who attend school away from the reservation/village. The differences in the settings and the predominant cultures presence *in* the setting of the higher learning institutions could produce a different result in the amount of acculturative stress experienced by the students.

Lastly, a qualitative study, examining the intricate differences of reported acculturative stress between the levels of acculturation could provide more detail about subjective differences involved in reporting experienced acculturative stress.

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APPENDICES

Appendix A

Demographics / General Questionnaire

Appendix A

Demographic and Information Questionnaire

Please complete the following information as accurately as possible. All information is strictly confidential and anonymous. This form will not include your name, only a subject number and at no time will your name be used in the data collection process. This will ensure that you will not be linked to the information given. Please complete all questions. Thank you.

1) What is your age (in years)? _____
2) What is your sex? (circle one) Male Female
3) Ethnicity (Check One)
_____ American Indian: If yes, what Tribal Affiliation? _____
Are you enrolled? ____
Are you a descendent? ____ (check one) 1st generation ___ 2nd generation ____
_____ Alaska Native: If yes, what Village? _____
Are you enrolled? _____
Are you a descendent? ____ (check one) 1st generation ___ 2nd generation ____

4) What year in school are you? (check one)
____ freshman
____ sophomore
____ junior
____ senior
____ graduate

5) Are you a transfer student? ___Yes ___No
If yes, did you transfer from: ____a tribal college ____a four-year university
Why did you transfer? _____

6) Language(s) that you hear fluently?_____
Language(s) that you are verbally fluent? _____
Language(s) that you are passively fluent (listen, and understand, but do not speak ___
_____

7) Approximately, how many miles away are you from the tribe that you are enrolled or a descendent? _____

8) Approximately, how many miles away are you from your family? _____

9) On average, approximately how often do you visit your tribal community? (check all that apply) ____daily ____weekly ____monthly ____yearly

10) How many years have you lived on a reservation(s)? _____
How many years have you lived off of a reservation(s)? _____

11) How often do you participate in your culture's activities? (check all that apply)
_____daily _____weekly _____monthly _____yearly

12) Please describe your social support system here at the university. _____

_____

_____

Appendix B

Native American Acculturation Scale

Appendix B

Native American Acculturation Scale (Garrett & Pichette, 2000 revised by Trahan, 2004).

Please select the ONE choice with which you identify in the space provided. Please only select ONE answer per question.

1. **What language can you speak?**
   - __ Tribal language only
   - __ Mostly tribal language, some English
   - __ Tribal language and English about equally well (bilingual)
   - __ Mostly English, some tribal language
   - __ English only

2. **What language do you prefer?**
   - __ Tribal language only
   - __ Mostly tribal language, some English
   - __ Tribal language and English about equally well (bilingual)
   - __ Mostly English, some tribal language
   - __ English only

3. **What language do you understand?**
   - __ Tribal language only
   - __ Mostly tribal language, some English
   - __ Tribal language and English about equally well (bilingual)
   - __ Mostly English, some tribal language
   - __ English only

4. **How do you identify yourself?**
   - __ Native American
   - __ Native American and some non-Native American (e.g., White, African American, Latino, or Asian American)
   - __ Native American and non-Native American (bi-cultural)
   - __ Non-Native American and some Native American
   - __ Non-Native American (e.g., White, African American, Latino, and Asian American)

5. **Which identification does (did) your mother use?**
   - __ Native American
   - __ Native American and some non-Native American (e.g., White, African American, Latino, etc.)
   - __ Native American and non-Native American (bi-cultural)
   - __ Non-Native American and some Native American
   - __ Non-Native American (e.g., White, African American, Latino, and Asian American)

6. Which identification does (did) your father use?

__ Native American
__ Native American and some non-Native American (e.g., White, African, American, Latino, etc.)
__ Native American and non-Native American (bi-cultural)
__ Non-Native American and some Native American
__ Non-Native American (e.g., White, African American, Latino, and Asian American)

7. What was the ethnic origin of friends you had as a child up to age 6?

__ Only Native American
__ Mostly Native Americans
__ About equally Native Americans and non-Native Americans
__ Mostly non-Native Americans (e.g., White, African Americans, Latinos, and Asian Americans)
__ Only non-Native Americans

8. What was the ethnic origin of friends you had as a child 6-18?

__ Only Native American
__ Mostly Native Americans
__ About equally Native Americans and non-Native Americans
__ Mostly non-Native Americans (e.g., White, African Americans, Latinos, and Asian Americans)
__ Only non-Native Americans

9. Who do you associate with now in your community?

__ Only Native American
__ Mostly Native Americans
__ About equally Native Americans and non-Native Americans
__ Mostly non-Native Americans (e.g., White, African Americans, Latinos, and Asian Americans)
__ Only non-Native Americans

10. What music do you prefer?

__ Native American music only (e.g., pow-wow music, traditional flute, contemporary, and chant)
__ Mostly Native American music
__ Equally Native American and other music
__ Mostly other music (e.g., rock, pop, country, rap, metal, classical, and opera)
__ Other music only

11. What movies do you prefer?

__ Native American movies only
__ Mostly Native American movies
__ Equally Native American and other movies
__ Mostly other movies
__ Other movies only

12. Where were you born?

__ Reservation, Native American community
__ Rural area, Native American community
__ Urban area, Native American community
__ Urban or Rural area, near Native American community
__ Urban or Rural area, away from Native American community

13. Where were you raised?

__ Reservation, Native American community
__ Rural area, Native American community
__ Urban area, Native American community
__ Urban or Rural area, near Native American community
__ Urban or Rural area, away from Native American community

14. What contact have you had with Native American communities?

__ Raised for 1 year or more on the reservation or other Native American community
__ Raised for 1 year or less on the reservation or other Native American community
__ Occasional visits to the reservation or other Native American community
__ Occasional communications with people on reservation or other Native American community
__ No exposure or communications with people on reservation or other Native American community

15. What foods do you prefer?

__ Native American food only
__ Mostly Native American foods and some other foods
__ About equally Native American foods and other foods
__ Mostly other foods
__ Other foods only

16. In what language do you think?

__ Tribal language only
__ Mostly Tribal language, some English
__ Tribal language and English about equally well (bilingual)
__ Mostly English, some Tribal language
__ English only

17. Do you . . .

__ Read only your Tribal language
__ Read a Tribal language better than English
__ Read both a Tribal language and English about equally well
__ Read English better than a Tribal language
__ Read only English

18. Do you . . .

__ Write only your Tribal language
__ Write a Tribal language better than English
__ Write both a Tribal language and English about equally well
__ Write English better than a tribal language
__ Write only English

19. How much pride do you have in Native American culture and Heritage?

__ Extremely proud
__ Moderately proud
__ A little proud
__ No pride, but do not feel negative toward other Native Americans
__ No pride, but do feel negative toward other Native Americans

20. How would you rate yourself?

__ Very Native American
__ Mostly Native American
__ Bicultural
__ Mostly non-Native American
__ Very non-Native American

21. Do you participate in Native American traditions, ceremonies, occasions, and so on.

__ All of them
__ Most of them
__ Some of them
__ A few of them
__ None at all

Appendix C

The Social, Attitudinal, Familial, and Environmental (S.A.F.E.)

Acculturative Stress Scale

Appendix C

Social, Attitudinal, Familial, and Environmental (S.A.F.E.)

Acculturative Stress Scale (Mena, Padilla, and Maldonaldo, 1987)

Please answer the following items if you have experienced them at any time since attending the University of Montana. Please check the response that most reflected the way that you felt at the time of the occurrence(s).

1. I felt uncomfortable when others put down people of my ethnic background.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

2. I had more things blocking my success than most people.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

3. It bothered me that family members I was close to did not understand my different values.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

4. Close family members and I had conflicting expectations about my future.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

5. It was hard to express to my friends how I really feel.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

6. My family did not want me to move away but I wanted to.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

7. It bothered me to think that so many people used drugs.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

8. It bothered me that I could not be with my family.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

9. In looking for a good job, I sometimes felt that my ethnicity was a limitation.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

10. I didn't have many close friends.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

11. Many people had stereotypes about my culture or ethnic group and treated me as if they were true.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

12. I didn't feel at home.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

13. People thought I was unsociable when in fact I had trouble talking in English.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

14. I often felt that people were actively trying to stop me from advancing.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

15. It bothered me when people from a different culture pressured me to be like them.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

16. I often felt ignored by people who were supposed to assist me.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

17. Because I was different I did not get enough credit for the work that I did.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

18. Loosening the ties with my village / tribal community was difficult.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

19. I often thought about my cultural background.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

20. Because of my ethnic background, I felt that others often did not ask me to take part in their activities.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

21. People looked down upon me if I practiced the customs of my culture.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

22. I had trouble understanding others when they spoke.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

23. It bothers me that I have an accent.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

---

24. It is difficult for me to "show off" my family.

_____Not applicable
_____Not stressful
_____A little stressful
_____Moderately stressful
_____Very stressful
_____Extremely stressful

Appendix D

Recruitment Poster

Appendix D

Recruitment Poster

Do You Need Psychology 100 experimental credits or $?

- ***Are you over 18?***
- ***Are you an enrolled member or a descendent of a Federally Recognized Tribe?***

If so, you are invited to participate in a study concerning acculturation and acculturation stress.

Psychology 100 participants may choose (2) Psych 100 experimental credits, ***OR*** 1 entry for one of four $25 cash prizes.

Participants not enrolled in Psych 100 will be entered in a lottery for (4) $25 prizes.

Contact Michael Trahan @ michael.trahan@umontana.edu or **243-6298**
or Gyda Swaney
gyda.swaney@umontana.edu or **243-5630**
or sign up on Skaggs building (2nd floor) by Rm 246

Appendix E

Reimbursement Checklist Form

Appendix E

Reimbursement Checklist

Please check your preference **(choose one only)**:

_____ I would like to receive (2) two Psychology 100 experimental credits for my participation in this study. (Please bring experimental sign-in sheet to experimenter.)

_____ I would like to receive an entry into the drawing for (4) four $25 cash prizes

Name: _____

E-Mail address: _____

Phone Number(s): Home _____
Other _____

***This information will be destroyed upon the notification and the awarding of the (4) $25 cash prizes.**

References

Atkinson, D.R., Lowe, S., & Matthews, L. (1995). Asian-American acculturation, gender, and willingness to seek counseling. *Journal of Multicultural Counseling & Development*, 23(3), 130-138.

Balcazar, H., Peterson, G., & Cobas, J.A. (1996). Acculturation and health-related risk behaviors among Mexican-American pregnant youth. *American Journal of Health Behavior*, 20(6), 425-433.

Berry, J.W. (1989). Imposed etics-emics-derived etics: The operationalization of a compelling idea. *International Journal of Psychology*, 24, 721-735.

Berry, J.W. (1999). Emics and etics: A symbolic conception. *Culture and Psychology*, 5(2), 165-171.

Brave Heart, M.Y.H., & DeBruyn, L.M. (1998). The American Indian holocaust: healing historical unresolved grief. *The Journal of the National Center of American Indian and Alaska Native Mental Health Research*, 8(2), 60-82.

Brave Heart-Jordan, M.Y.H. (1996). The return to the sacred path: Healing from historical trauma and historical unresolved grief among the Lakota. *Dissertation Abstract International,* 56(9-A), pp. 3742, (UMI No. 9600362).

Choney, S.K., Berryhill-Paapke, E., & Robbins, R.R. (1995). The acculturation of American Indians: Developing frameworks for research and practice. In J.G. Ponterotto, J.M. Casas, et al (Eds.). *Handbook of multicultural counseling* (pp.73-92). Thousand Oaks, CA: Sage Publications, Inc.

Cuellar, I., Harris, L.C., & Jasso, R. (1980). An acculturation scale for Mexican American normal and clinical populations. *Journal of Behavioral Sciences*, 2(3), 199-217.

Demmert, W. (Spring 2004). Native Voices: William Demmert on Culturally Based Education. Northwest Education Magazine. Retrieved December 7, 2006, from http://www.nwrel.org/nwedu/09-03/voices_demmert.php

Dona, G, & Berry, J.W. (1994). Acculturation attitudes and acculturative stress of Central American Refugees. *International Journal of Psychology*, 29(1), 57-70.

Duan, C., & Vu, P. (2000). Acculturation of Vietnamese students living in or away from Vietnamese communities. *Journal of Multicultural Counseling and Development*, 28(4), 225-242.

Finch, B.K., Kolody, B., & Vega, W.A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, 41, 295-313.

Fuertes, J.N., & Westbrook, F.D. (1996). Using the social, attitudinal, familial, and environmental (S.A.F.E.) acculturation stress scale to assess the adjustment needs of Hispanic college students. *Measurement and Evaluation in Counseling and Development*, 29, 67-76.

Garrett, M.T., & Pichette, E.F. (2000). Red as an apple: Native American acculturation and counseling with or without reservation. *Journal of Counseling and Development*, 78(1), 3-13.

Glass, M.H. (1996). Acculturation, personality and Alaska Natives. (Doctural dissertation, University of Wyoming, 1996). *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 57(1-B), 0762.

Golding, J.M., & Burnam, M.A. (1990). Immigration, stress, and depressive symptoms in a Mexican-American community. *The Journal of Nervous and Mental Disease*, 178(3), 161-171.

Hovey, J.D. (2000). Psychosocial predictors of depression among Central American immigrants. *Psychological Reports*, 86, 1237-1240.

Indian Health Services. (February 2001). Heritage & Health. Mental Health. Retrieved April 7, 2003, from http://info.ihs.gov

Katragadda, C.P., & Tidwell, R. (1998). Rural Hispanic adolescents at risk for depressive symptoms. *Journal of Applied Social Psychology*, 28(20), 1916-1930.

Kim, E.J., O'Neil, J.M., & Owen, S.V. (1996). Asian-American men's acculturation and gender-role conflict. *Psychological Reports*, 79, 95-104.

Krishnan, A., & Berry, J.W. (1992). Acculturative stress and acculturation attitudes Among Indian immigrants to the United States. *Psychology and Developing Societies*, 4(2), 187-212.

LaFromboise, T.D., Rowe, W. (1983). Skills training for bicultural competence: Rationale and application. *Journal of Counseling Psychology*, 30(4), 589-595.

LaFromboise, T.D., Trimble, J.E., & Mohatt, G.V. (1990). Counseling intervention and American Indian tradition: An integrative approach. *The Counseling Psychologist*, 18(4), 628-654.

La Fromboise, T.D., Coleman, H.L.K., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and Theory. *Psychological Bulletin*, 114(3), 395-412.

Lee, C.S., Chang, J.C., & Cheng, A.T.A. (2002). Acculturation and suicide: a case-control psychological autopsy study. *Psychological Medicine*, 32, 133-141.

Liu, X., Uchiyama, M., Okawa, M., & Kurita, H. (2000). Prevalence and correlates of self-reported sleep problems among Chinese adolescents. *Sleep: Journal of Sleep Research & Sleep Medicine*, 23(1), 27-34.

Mena, F.J., Padilla, A.M., & Maldonado, M. (1987). Acculturative stress and specific coping strategies among immigrant and later generation college students. *Hispanic Journal of Behavioral Sciences*, 9(2), 207- 225.

Mendoza, R.H. (1989). An empirical scale to measure type and degree of acculturation in Mexican-American adolescents and adults. *Journal of Cross-Cultural Psychology*, 20(4), 372-385.

Nguyen, L., & Peterson, C. (1992). Depressive symptoms among Vietnamese-American college students. *The Journal of Social Psychology*, 133(1), 65-71.

Nwadiora, E., & McAdoo, H. (1996). Acculturative stress among Amerasian refugees: gender and racial differences. *Adolescence*, 31(122), 477-487.

Ogbu, J.U., & Simons, H.D. (1998). Voluntary and involuntary minorities: A cultural-ecological theory of school performance with some implications for education. *Anthropology & Education Quarterly*, 29(2), 155-188. Retrieved July 19, 2004, from Wilson OmniFile Full Text database.

Oh, Y., Koeske, G.F., & Sales, E. (2002). Acculturation, stress and depressive symptoms among Korean immigrants in the United States. *Journal of Social Psychology*, 142(4), 511-526.

Olson, M.J. (2003). Counselor understanding of Native American spiritual loss. *Journal of Counseling and Values*, 47(2), 109-117.

Padilla, A.M. (1985). Acculturation and stress among immigrants and later generation individuals. *Spanish Speaking Mental Health Research Center Occasional Papers*, 20, 41-60.

Padilla, A.M., Alvarez, M. & Lindholm, K.J. (1986). Generational status and personality factors as predictors of stress in students. *Hispanic Journal of Behavioral Sciences*, 8(3), 275-288.

Pawliuk, N., Grizenko, N., Chan-Yip, A., Gantous, P, Mathew, J., & Nguyen, D. (1996). Acculturation style and psychological functioning in children of immigrants. *American Journal of Orthopsychiatry*, 66(1), 111-121.

Rodriguez, N., Myers, H.F., Morris, J.K., & Cardoza, D. (2000). Latino College Student adjustment: Does an increased presence offset minority-status and acculturative stresses? *Journal of Applied Social Psychology*, 30(7), 1523-1550.

Romero, A.J., & Roberts, R.E. (2003). Stress within a bicultural context for adolescents of Mexican descent. *Cultural Diversity and Ethnic Minority Psychology*, 9(2), 171-184.

Rotenberg, V.R., Kutsay, S, & Venger, A. (2000). The subjective estimation of integration into a new society and the level of distress. *Stress Medicine*, 16, 117-123.

Swinomish Tribal Mental Health Project. (2002). A Gathering of Wisdoms Tribal Mental Health: A cultural perspective (2nd ed.). LaConner, WA.

Substance Abuse and Mental Health Services Administration (SAMHSA). United States Public Health Services. (n.d.). Culture, Race, and Ethnicity: A supplement to mental health: A Report of the Surgeon General. Retrieved March 31, 2003, from http://www.surgeongeneral.gov/library/mentalhealth/cre/fact4.asp

Suinn, R.M., Rickard-Figueroa, K., Lew, S, & Vigil, P. (1987). The Suinn-Lew Asian self-identity acculturation scale: An initial report. *Educational & Psychological Measurement*, 47(2), 401-407.

Swisher, K., & Deyhle, D., (1987) Adapting Instruction to Culture. In J. Reyhner (Ed.), Teaching American Indian Students (pp. 81-95). Norman, OK: University of Oklahoma Press.

Tran, T.V. (1993). Psychological traumas and depression in a sample of Vietnamese people in the United States. *Health & Social Work*, 18(3), 184-194.

Vazquez, L.A., & Garcia-Vazquez, E. (1995). Variables of success and stress with Mexican American students. *College Student Journal*, 29(2), 221-226.

Verschuur, M.J., Eurelings-Bontekoe, E.H.M., Spinhoven, P., & Duijsens, I.J. (2003). Homesickness, temperament, and character. *Personality and Individual Differences*, 35, 757-770.

Williams, C.L., & Berry, J.W. (1991). Primary prevention of acculturative stress among refugees. *American Psychologist*, 46(6), 632-641.

Young, T.J., Ekeler, W.J., Sawyer, R.M., & Prichard, K.W. (1994). Black student subcultures in American universities: Acculturation stress and cultural conflict. *College Student Journal*, 28(4), 504-508.

Yu, L.C. (1984). Acculturation and stress within Chinese American families. *Journal of Comparative Family Studies*, 15(1), 77-94.

Zambrana, R.E., Scrimshaw, S.C.M., Collins, N., & Dunkel-Schetter, C. (1997). Prenatal health behaviors and psychosocial risk factors in pregnant women of Mexican origin: The role of acculturation. *American Journal of Public Health*, 87(6), 1022-1026.

Zheng, X., & Berry, J.W. (1991). Psychological adaptation of Chinese Sojourners in Canada. *International Union of Psychological Science*, 451-469.

Figures

Figure 1. Model of Acculturative Stress by Berry and Kim (1988) as cited by Williams and Berry.

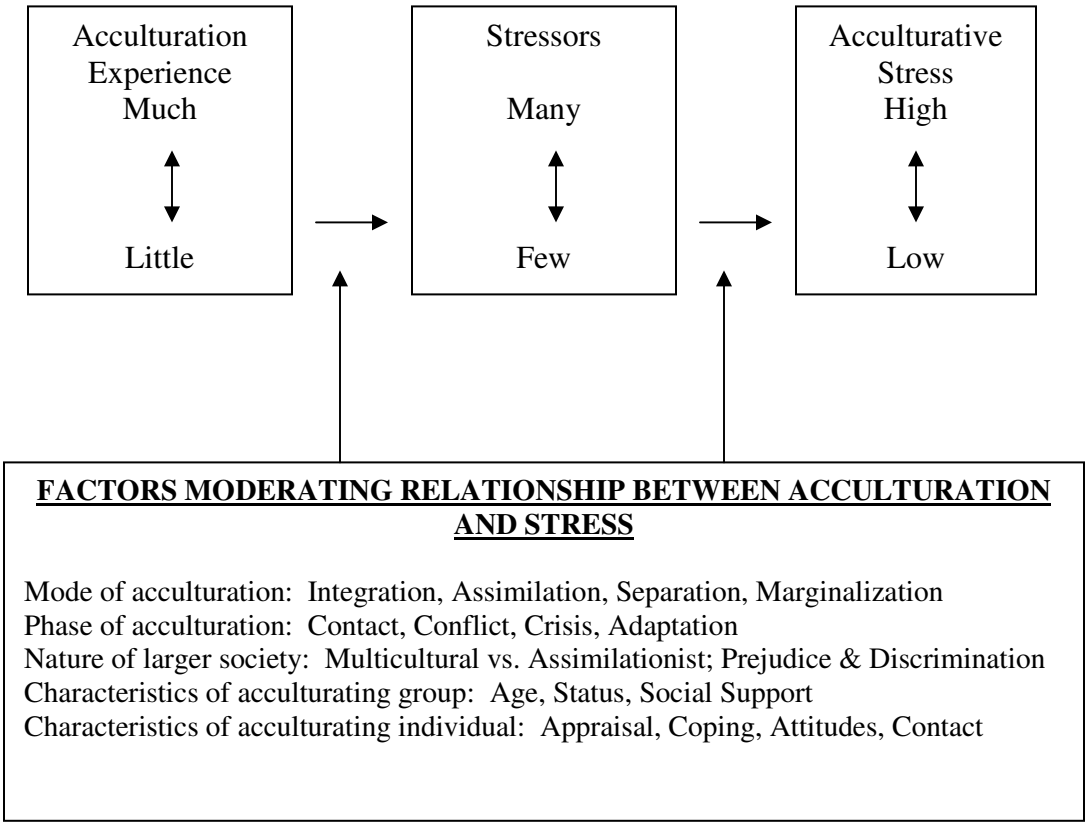
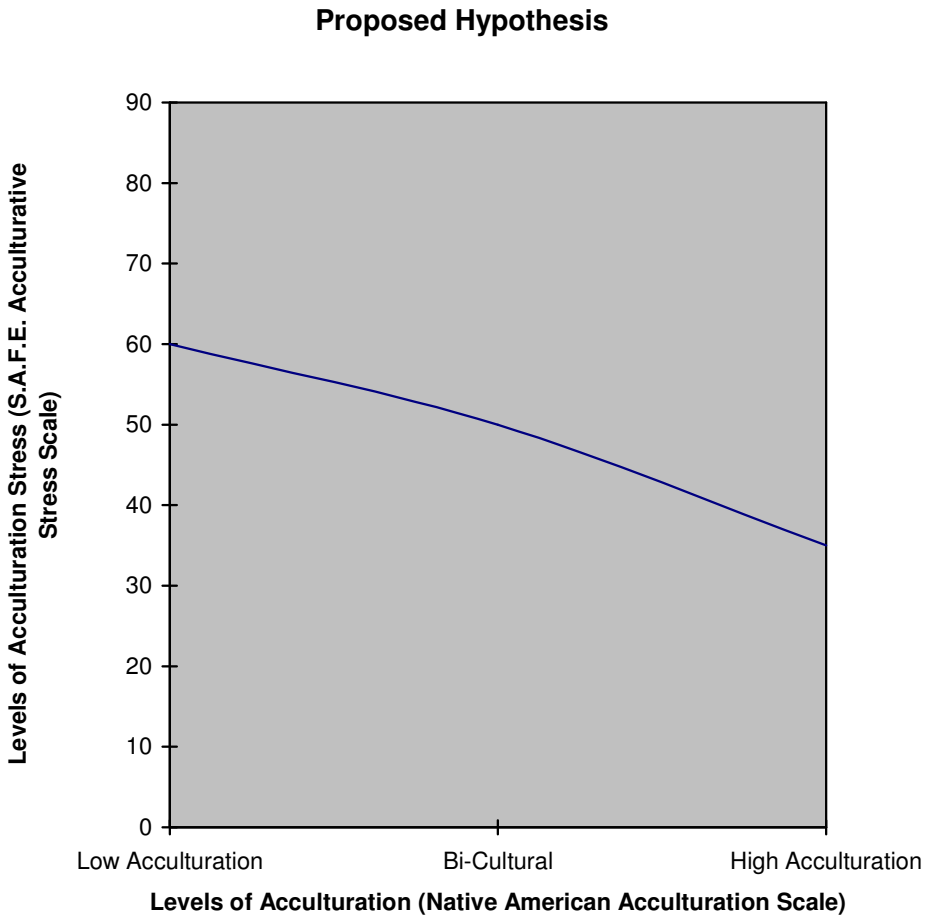


Figure 2. Proposed hypothesis: Levels of Acculturation from the Native American Acculturation Scale (N.A.A.S.) vs. Levels of Acculturation Stress measured by the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Scale



-Low Acculturation and Bi-Cultural individuals will exhibit a higher amount of acculturative stress than High acculturation individuals.

Figure 3. Scatterplot of the Years of Life on the Reservation and the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Stress Scale.

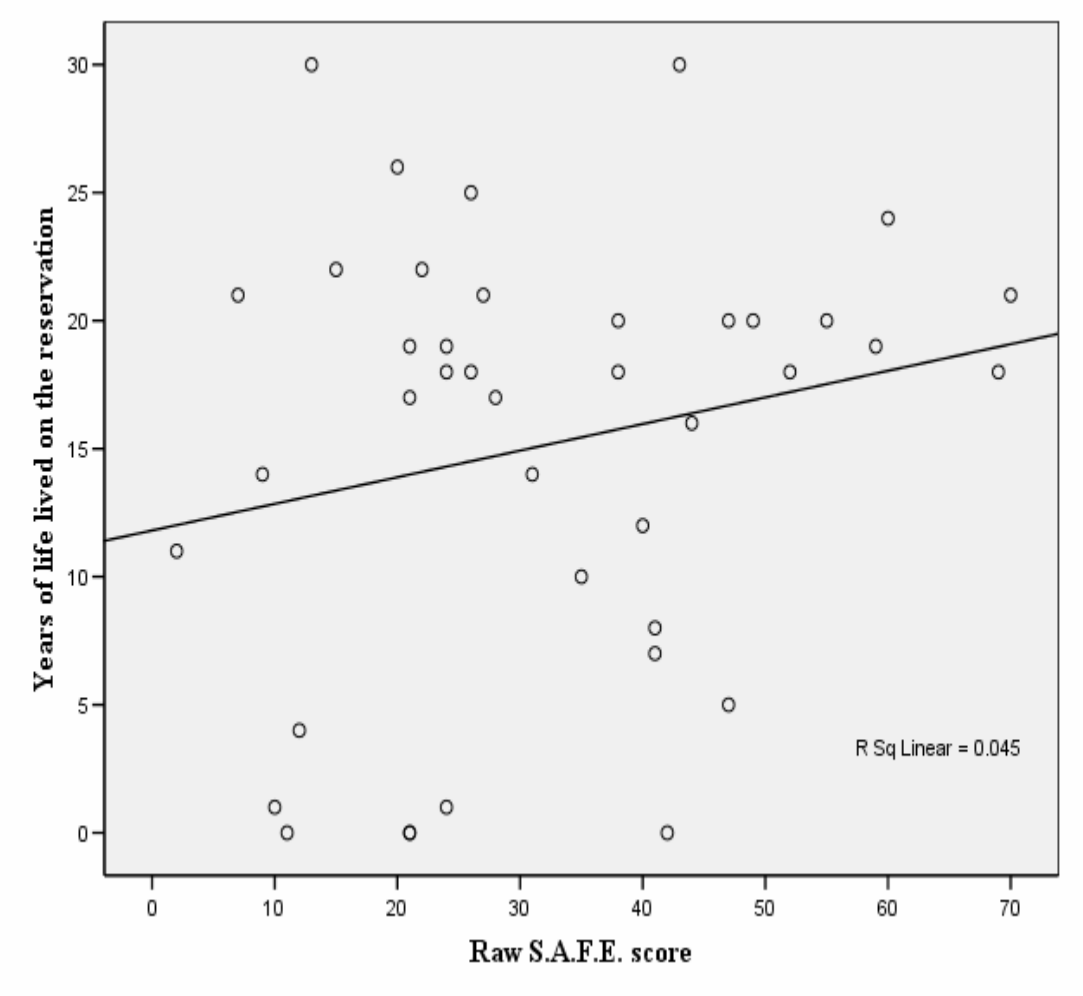


Figure 4. Scatterplot of Years Lived on Reservation and the Native American Acculturation Scale (N.A.A.S.)

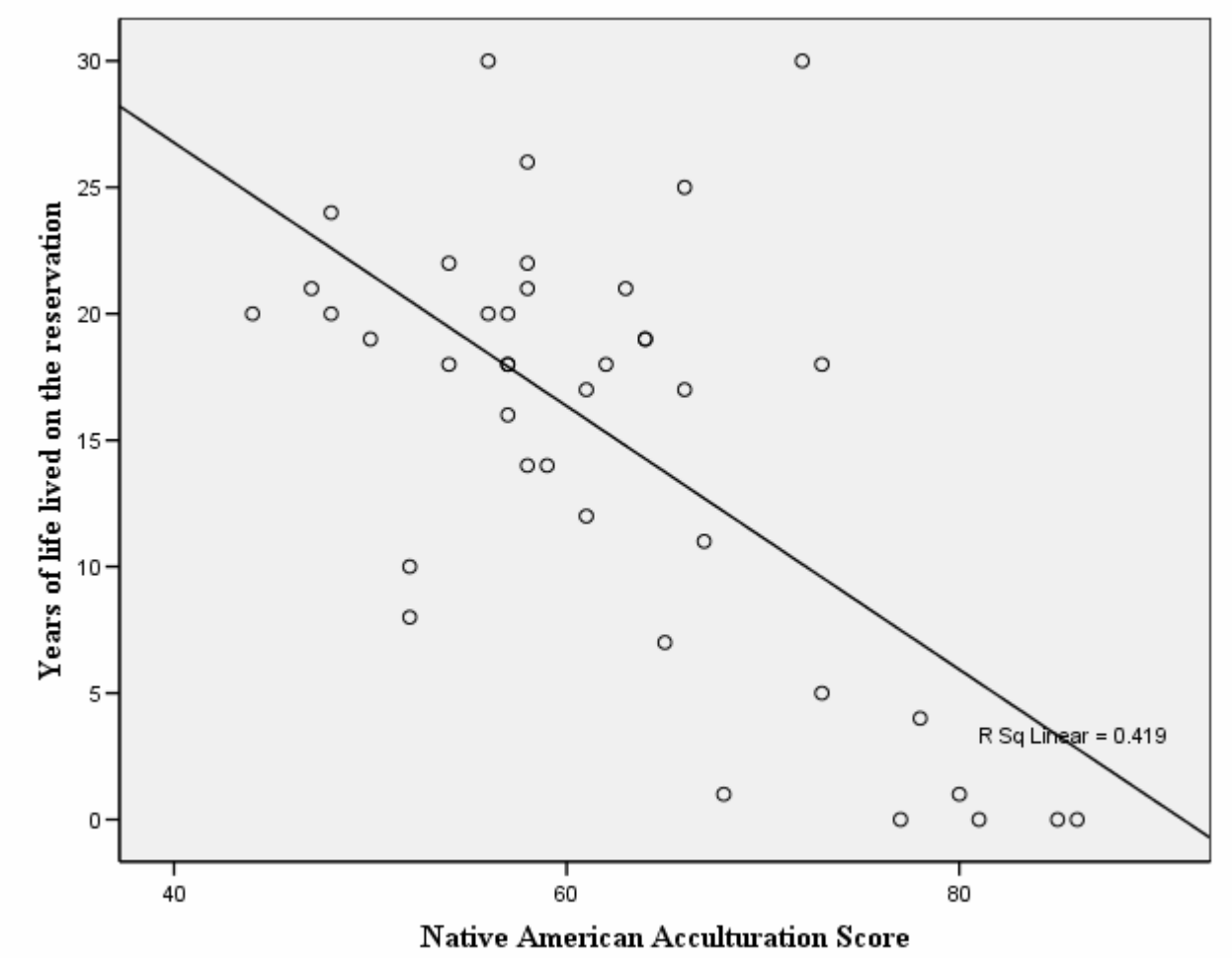


Figure 5. Scatterplot of the Native American Acculturation Scale (N.A.A.S.) Scores and the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Stress Scale.

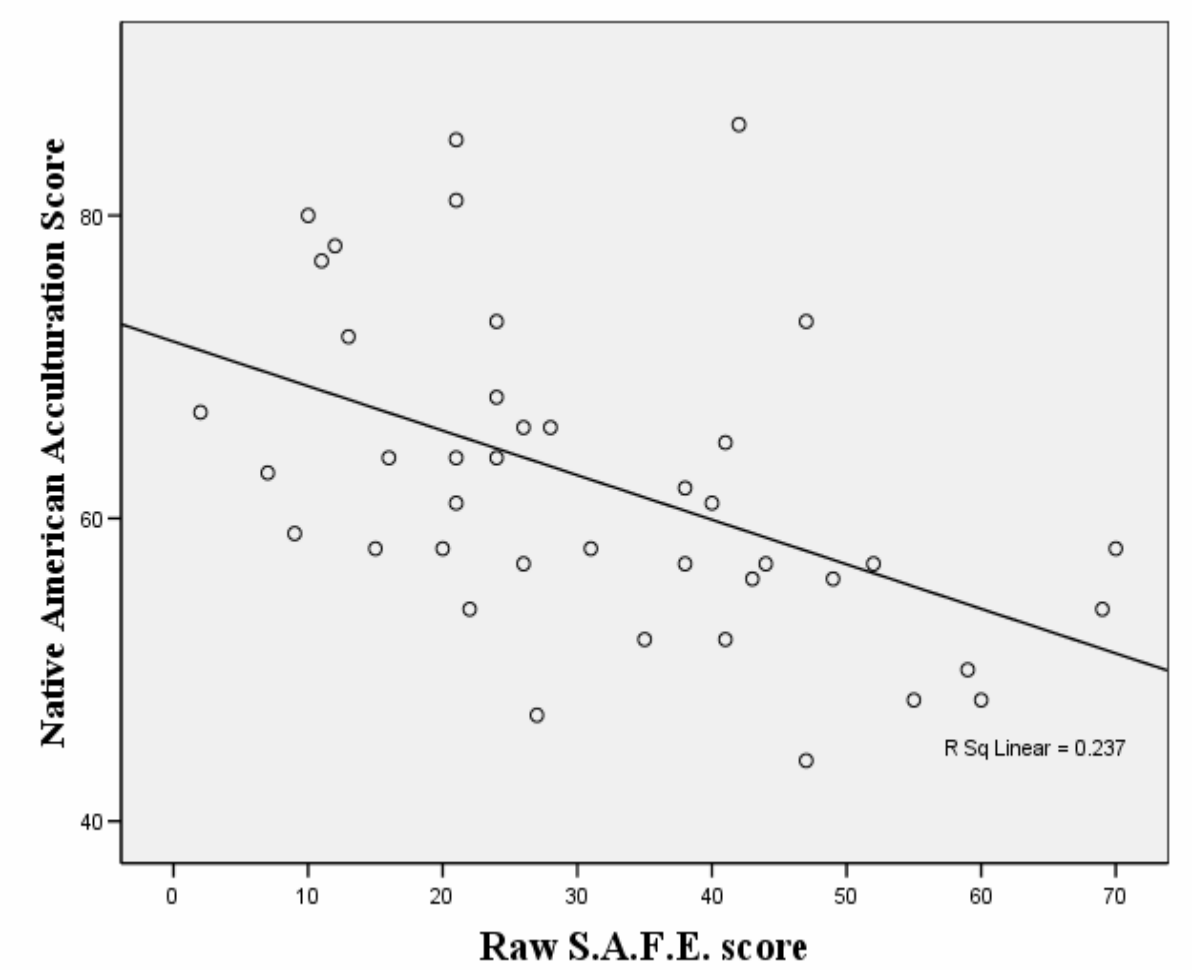


Figure 6. Scatterplot of the distance from family (Miles away from family) and the Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Stress Scale.

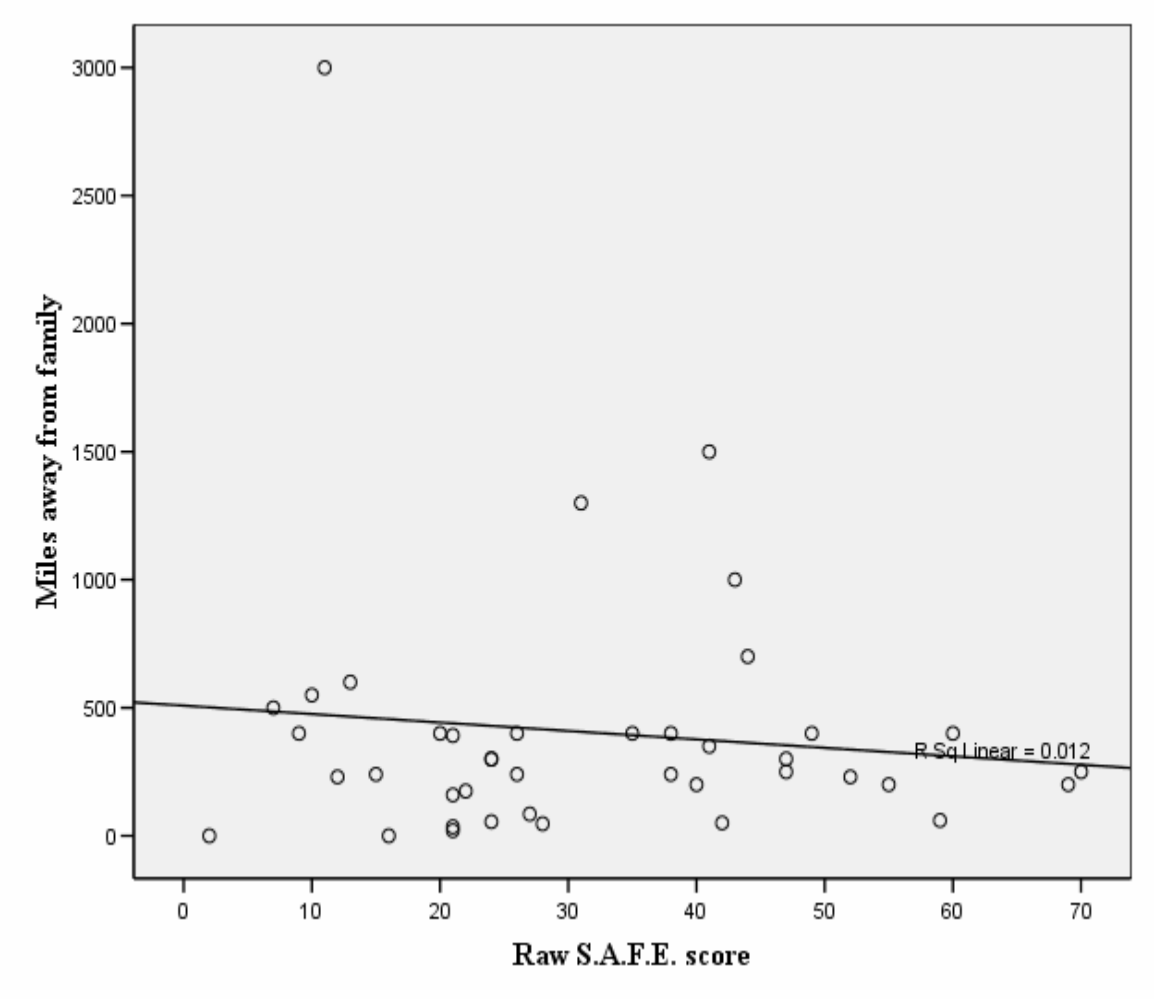


Figure 7. Bar Graph of the median Social, Attitudinal, Familial, and Environmental (S.A.F.E.) Acculturation Stress Scale score and gender

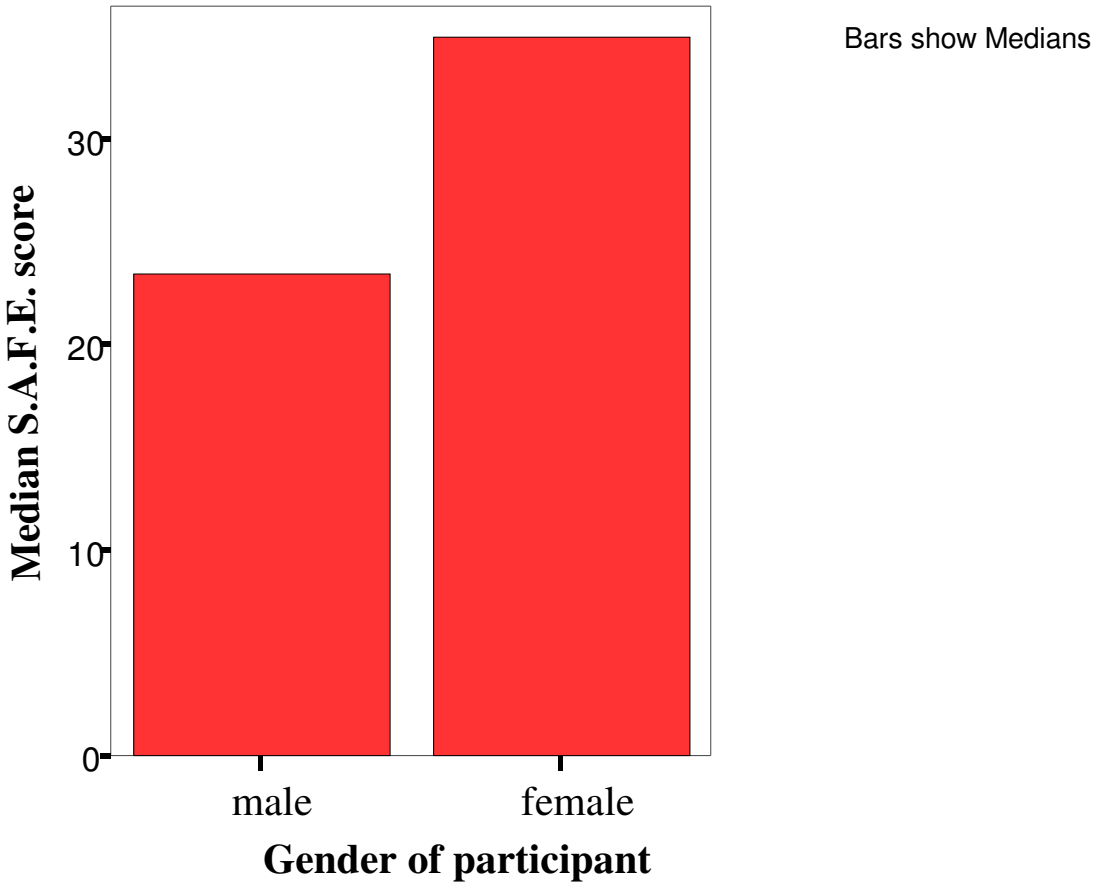
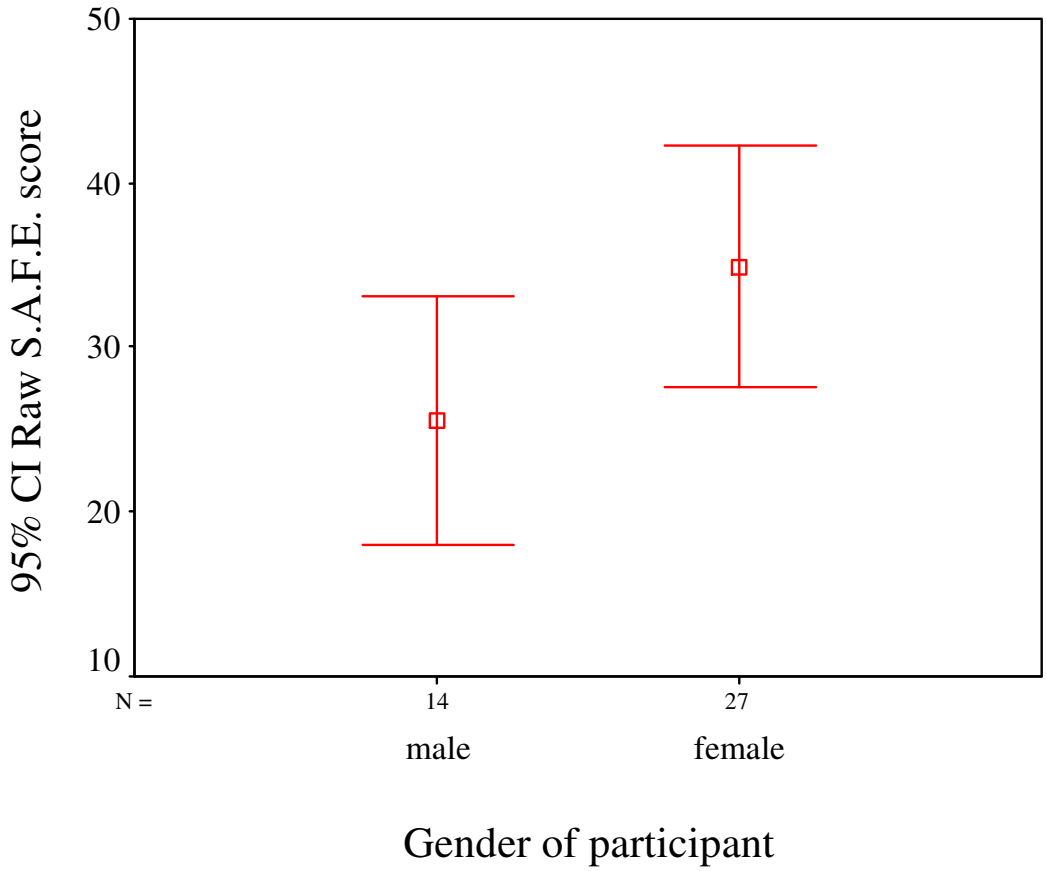


Figure 8. Error Bar Graph for Gender confidence intervals derived from the S.A.F.E. Acculturation Stress Scale



TABLES

Table 1

Means, medians, ranges, and standard deviations of age, miles from family, years lived on a reservation/village, and miles from tribe from the Demographic Information Questionnaire

	M	*Median*	*SD*	*Range*
Age	23	21	5.8	18-42
Miles from family	404	250	523	0-3000
Years of life on rez	15.2	n/a	8.5	0-30
Miles from tribe	533	666	392	0-3000

Table 2

Means and standard deviations for the Native American Acculturation Scale (N.A.A.S.) and the Social, Attitudinal, Familial, & Environmental (S.A.F.E.) Acculturation Stress Scale

	N.A.A.S.		S.A.F.E. Acculturation Stress Scale	
	M	*SD*	*M*	*SD*
Overall (*N*=41)	62.34	10.47	31.73	17.31
Male (*n*=14)	66.64	12.51	25.57	13.03
Female (*n*=27)	60.11	8.67	34.93	18.57

Table 3

The Effect Sizes, Variances, and Slopes of the Predictors and S.A.F.E. Acculturation Stress Scale Score

Predictors	Effect Size	Variance	Slope
N.A.A.S.	.24	.06	-.804*
Years of Life on Reservation	.045	.002	.43
Miles from Family	.012	.0001	-.004

*p = .001

Table 4

The Effect Size, Variance, and Slope of the Predictor Variable (Years of Life on Reservation) and the Native American Acculturation Scale (N.A.A.S.)

Predictor	Effect Size	Variance	Slope
Years of Life on Reservation	.42	.18	-.804*

*p = .0001

Table 5

The Bivariate Correlation of the Predictors and S.A.F.E. Acculturation Stress Scale Score

Predictors	Correlation between each predictor and the S.A.F.E. score
N.A.A.S. Adjusted	-.45*
Most of Life on Reservation	-.13
Miles from Family	-.13
Gender	.28

* $p < .05$