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Achievement Despite Adversity: Measuring Resilience in Northern Plains Native American College Students

Kyle X. Hill

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ACHIEVEMENT DESPITE ADVERSITY: MEASURING RESILIENCE IN NORTHERN PLAINS NATIVE AMERICAN COLLEGE STUDENTS

by

Kyle X. Hill
Bachelor of Science, University of North Dakota, 2007

A Thesis
Submitted to the Graduate Faculty
Of the
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In partial fulfillment of the requirements

for the degree of

Master of Arts

Grand Forks, North Dakota
December
2009
This thesis, submitted by Kyle X. Hill in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

Chairperson

This thesis meets the standards for appearance, conforms to the style and requirements of the graduate school of the University of North Dakota, and is hereby approved.

Dean of Graduate School

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Department: Psychology

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TABLE OF CONTENTS

LIST OF TABLES ..............................................................................................................v
ACKNOWLEDGEMENTS ..............................................................................................ix
ABSTRACT .....................................................................................................................x

CHAPTER

I. INTRODUCTION .......................................................................................................1
II. METHOD ....................................................................................................................37
III. RESULTS ...............................................................................................................42
IV. DISCUSSION ..........................................................................................................74

APPENDICES .............................................................................................................88

REFERENCES ..............................................................................................................122
### LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with Age as the dependent variable</td>
<td>42</td>
</tr>
<tr>
<td>2. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with SCL-90R subscale T-scores as the dependent variable</td>
<td>43</td>
</tr>
<tr>
<td>3. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with SASSI-III subscale T-scores as the dependent variable</td>
<td>45</td>
</tr>
<tr>
<td>4. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with NPBI-R raw scores as the dependent variable</td>
<td>46</td>
</tr>
<tr>
<td>5. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with CESD raw scores as the dependent variable</td>
<td>47</td>
</tr>
<tr>
<td>6. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with TEDS raw scores as the dependent variable</td>
<td>47</td>
</tr>
<tr>
<td>7. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with QOLI percentile scores as the dependent variable</td>
<td>48</td>
</tr>
<tr>
<td>8. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with GPA as the dependent variable</td>
<td>48</td>
</tr>
<tr>
<td>9. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with Credit hours completed as the dependent variable</td>
<td>49</td>
</tr>
<tr>
<td>10. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with Stressful Life Events Questionnaire scaled scores as the dependent variable</td>
<td>51</td>
</tr>
<tr>
<td>11. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with Stressful Life Events Questionnaire aggregate scores as the dependent variable</td>
<td>51</td>
</tr>
</tbody>
</table>
12. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANOVA with CD-RISC raw scores as the dependent variable ........................................... 51
13. Means and standard deviations of a 2 (Ethnicity) x 2 (Gender) factorial ANCOVA with Stressful Life Experiences scaled scores as the dependent variable and age as the covariate ........................................................................................................... 52
14. Means and standard deviations of a one-way (NPBI-R Classification) ANOVA with SCL-90R subscale T-scores as the dependent variable ............................................................... 53
15. Means and standard deviations of a one-way (NPBI-R Classification) ANOVA with SASSI-III subscale T-scores as the dependent variable .............................................................................. 54
16. Means and standard deviations of a one-way (NPBI-R Classification) ANOVA with CD-RISC raw scores as the dependent variable ............................................................... 55
17. Means and standard deviations of a one-way (NPBI-R Classification) analyses of variance ANOVA with Stressful Life Events scaled scores as the dependent variable ........................................................................................................... 55
18. Means and standard deviations of a one-way (NPBI-R Classification) analyses of variance (ANOVA) with GPA as the dependent variable ............................................................... 56
19. Means and standard deviations of a one-way (NPBI-R Classification) analyses of variance (ANOVA) with Credits completed as the dependent variable ............................................................... 57
20. Means and standard deviations of a one-way (NPBI-R Classification) analyses of variance (ANOVA) with CESD raw scores as the dependent variable ............................................................... 57
21. Means and standard deviations of a one-way (NPBI-R Classification) analyses of variance (ANOVA) with TEDS raw scores as the dependent variable ............................................................... 57
22. Simultaneous multiple regression with SCL-90R subscale (Somatization) as the dependent variable ........................................................................................................... 59
23. Simultaneous multiple regression with SCL-90R subscale (Hostility) as the dependent variable ........................................................................................................... 59
24. Simultaneous multiple regression with SCL-90R subscale (Psychoticism) as the dependent variable ........................................................................................................... 60
25. Simultaneous multiple regression with SCL-90R subscale (Obsessive - Compulsive) as the dependent variable ........................................................................................................... 60
26. Simultaneous multiple regression with SCL-90R subscale (Interpersonal Sensitivity) as the dependent variable ........................................................................................................... 61
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Depression) as the dependent variable</td>
<td>61</td>
</tr>
<tr>
<td>28</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Anxiety) as the dependent variable</td>
<td>62</td>
</tr>
<tr>
<td>29</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Phobic Anxiety) as the dependent variable with Interaction</td>
<td>63</td>
</tr>
<tr>
<td>30</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Paranoid Ideation) as the dependent variable</td>
<td>63</td>
</tr>
<tr>
<td>31</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Global Severity Index) as the dependent variable</td>
<td>64</td>
</tr>
<tr>
<td>32</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Positive Symptom Total) as the dependent variable</td>
<td>64</td>
</tr>
<tr>
<td>33</td>
<td>Simultaneous multiple regression with SCL-90R subscale (Positive Symptom Distress Index) as the dependent variable with Interaction</td>
<td>65</td>
</tr>
<tr>
<td>34</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Symptoms of Substance Misuse) as the dependent variable</td>
<td>66</td>
</tr>
<tr>
<td>35</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Obvious Attributes) as the dependent variable</td>
<td>66</td>
</tr>
<tr>
<td>36</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Supplemental Addiction Measure) as the dependent variable</td>
<td>67</td>
</tr>
<tr>
<td>37</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Symptoms of Substance Misuse) as the dependent variable</td>
<td>67</td>
</tr>
<tr>
<td>38</td>
<td>Simultaneous multiple regression with SASSI-III subscale (face-Valid Alcohol) as the dependent variable</td>
<td>68</td>
</tr>
<tr>
<td>39</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Face-Valid Other Drugs) as the dependent variable</td>
<td>68</td>
</tr>
<tr>
<td>40</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Subtle Attributes) as the dependent variable</td>
<td>69</td>
</tr>
<tr>
<td>41</td>
<td>Simultaneous multiple regression with SASSI-III subscale (Defensiveness) as the dependent variable</td>
<td>69</td>
</tr>
</tbody>
</table>
42. Simultaneous multiple regression with SASSI-III subscale (Correctional) as the dependent variable ................................................................. 70
43. Simultaneous multiple regression with GPA as the dependent variable .......... 70
44. Simultaneous multiple regression with Credits Completed as the dependent variable ........................................................................................ 71
45. Simultaneous multiple regression with Stressful Life Events Scale score as the dependent variable ................................................................. 71
46. Simultaneous multiple regression with CESD as the dependent variable ........... 72
47. Simultaneous multiple regression with TEDS as the dependent variable .......... 72
48. Simultaneous multiple regression with QOLI percentile score as the dependent variable ................................................................................. 73
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ABSTRACT

The present study aims to examine resilience in Northern Plains Native American and Caucasian college students. Native Americans have been subjected to a traumatic existence, both, historically and presently through acts related to colonization. Thus, an examination of how and why some individuals can thrive in the presence of great adversity, both past and present, will extend a great degree of understanding on the process of resilience.

Further, the investigation involved the use of a number of assessments to evaluate Native American and Caucasian college students on general characteristics of school achievement, past risk or trauma experience, a measure of resilience via endorsement of protective factors, and internal (psychological) adaptation. Ultimately, the present study sought to compare resilient and competent individuals, who are similar in outcome (i.e. college students at the university level), but divergent in risk or adversity experienced.

The study consisted of 93 participants (33 Native American, 60 Caucasian), recruited from the University of North Dakota main campus. Native American participants were from a variety of Northern Plains tribes. A simultaneous multiple regression, factorial Analysis of Variance (ANOVA), and Analysis of Covariance (ANCOVA), were utilized with a Statistical Package for Social Sciences (SPSS), analyzing each dependent variable; with ethnicity, resilience, Northern Plains Biculturalism Inventory – Revised (NPBI-R) cultural classification, and stress exposure
as predictors. Interactions were also analyzed to see if resilience served to negate or buffer against the negative effects of stress in Native Americans and Caucasian participants.

Results indicated that Native Americans endorsed higher scores on the resilience measure. Further, it was found that Psychological functioning was similar in Native American and Caucasian participants, regardless of cultural classification. GPA (Grade Point Average) and Credits completed were found to differ as Native Americans reported higher credits completed, and Caucasians reported higher GPA. Age was also found to share a relationship with stressful life experiences. NPBI-R cultural classifications were found to have no influence on differences in psychological functioning in Native Americans and Caucasian participants. However, participants that identified as being assimilated on the NPBI-R endorsed, on average, a significantly higher GPA than either that of participants who identified as marginal or traditional.
CHAPTER 1
INTRODUCTION

Literature Review

Native American people have been subjected to one of the most systematic attempts of genocide, and have suffered greatly through the experience, both, physically and psychologically (Duran & Duran, 1995). As a result of such historical trauma, in the late 1800’s, Native Americans were presumably destined for extinction (Parrillo, 1991). Historical trauma, such as: societal oppression, discrimination, assimilation (i.e. mass loss of language), acculturation, removal from tribal lands, drug and alcohol use, family violence, child abuse, child neglect, and poverty have caused great harm to the health of Native Americans. Due to the aforementioned circumstances and the lack of educational and economic opportunities on reservations, the modern Native has evolved into a product of long-standing historical trauma. “In general, Native American (NA) people comprise a low income, highly stressed population that suffers from extensive physical and mental health problems” (Manson, Bechtold, Novins, & Beals, 1997).

Cultural differences are vast within Native tribes. There are 562 federally recognized tribes in the United States, with an additional 200 Alaskan Native groups (Beals, Manson, Whitesell, Spicer, Novins, & Mitchell, 2005; Whitbeck, et al. 2006). With such large cultural differences between tribes and villages within North America, disseminating efficient and culturally appropriate mental health care across Native
populations is difficult. Therefore, it is imperative to find underlying characteristics that are similar among Native Americans, which contribute to common mental health disorders. More importantly, however, is a search for underlying characteristics that are similar in individuals from different tribes, with culture taken into account, that contribute to successful adaptation relevant to all youth and adolescents in Indian country.

In 1890, Native populations were estimated at 250,000 in the United States. However, the U.S. census bureau estimates that there are around 3,000,000 Native Americans today (U.S. Census Bureau, 2009) residing within the U.S. Nationally the unemployment rates for American Indian males and females as of 1997 were 16.2% and 13.4 %, respectively. The national average as of 1997 was only 6.4% and 6.2% for “U.S. all races” counterparts (Beals, Piasecki, Nelson, Jones, Keane. Dauphinais, et al. 1997). Furthermore, Garrison et al. (1989; as cited in Thrane et al., 2004) asserts that adolescents from impoverished backgrounds experienced more negative life events than adolescents from stable socioeconomic backgrounds. Likewise, Slavin et al. (1991) found that negative life events are more deleterious due to the impoverished background of many racial minority groups. Presently, as reported by the Indian Health Service (2008), poverty continues to afflict Native American communities at significant rates, leading to socioeconomic, educational, and other health problems. Furthermore, economic disparities in Native American communities are often related to domestic violence, sexual assault, and child sexual abuse.

Native Americans have a higher prevalence of alcohol and drug use than among many other ethnicities (Whitesell, Beals, Mitchell, Spicer, Novins, Manson, et al. 2007).
According to Waller et al. (2003) American Indian families have higher rates of substance abuse than any other ethnic group in the U.S.; however, there is significant variation between tribes with respect to rates of drug and alcohol use (Whitesell, Beals, Mitchell, Spicer, Novins, Manson, et al. 2007). According to Whitesell, Beals, Mitchell et al. (2007), 38% of adolescent males from a Northern Plains sample endorsed substance dependence symptoms by the age of 21. However, only 16% of adolescent females from a southwest tribal sample reported symptoms by age 21. Further, 32% of males from the southwest tribal sample endorsed substance dependence symptoms by the age of 21, and 25% of females from the northern plains reported substance abuse symptoms by the age of 21.

Whitbeck et al. (2006) found that around 50% of Native Americans whom were parents/caretakers of 10-12 year old children were found to meet lifetime criteria for a diagnosis of alcohol abuse, without a significant difference between that of males and females. Furthermore, 21% met lifetime criteria for alcohol dependence; however, males were more likely than females at 28% and 18.2%, respectively. Moreover, rates of substance abuse from a U.S. sample of same aged peers, taken from the National Comorbidity Survey (NCS), were far less likely to meet criteria for substance abuse than were the Canadian First Nations sample. In fact, the Canadian First Nations adult males from the northern Midwest (54.7%) were four times more likely to meet lifetime criteria for alcohol abuse than that of the NCS sample at 13.1%. As a result of such findings of substance and alcohol abuse among American Indian populations, many Native adolescents live in families experiencing alcohol and other drug abuse and the following
traumatic sequelae, including: family violence, mental health problems, accidents, homicides, suicides, illnesses, child abuse and neglect (Waller, 2003).

One negative outcome of the stressors faced by Natives (i.e. substance abuse, depression, anxiety, and lack of education, poverty, and intrafamilial tensions) is that self-sufficiency and economic success among Native American individuals has been rare. According to the 2006 American Community Survey (ACS) (U.S. Census Bureau, 2007), the median household income in the U.S. for all households in 2006 was $48,451. Asian households had the highest median household income ($63,642) in 2006, followed by non-Hispanic White households ($52,375), Native Hawaiian and Other Pacific Islander households ($49,361). Hispanics reported a median household income of $38,747. American Indian and Alaska Native households had a median household income of $33,762, and African-Americans had the lowest household income of $32,372.

To calculate poverty statistics the census bureau uses a set of dollar value thresholds that vary by taking into account family size and composition to determine who is in poverty. If a family’s income is less than the dollar value of the appropriate threshold, then the family is considered to be in poverty. According to the number and percentage of people in poverty in the ACS; Native American and Alaskan Natives have the highest poverty rate with 606,730 estimated to be in poverty, placing 26.6% of the Native American sample in poverty. The overall U.S. percentage of people in poverty was 13.3%, while the poverty rates for Whites were 9.3%. According to Englund, and associates (2008), nearly one-fourth of full-time working households where the head of the household had less than a high school diploma were living in poverty. Further, all high school dropouts in 2004-2005 had a 33% unemployment rate at the time of
assessment. Englund, et al. (2008), also found that low-income youths were found to drop out at higher rates than other socioeconomic groups.

According to Thrane et al. (2004), socioeconomic status (SES) was one of the most reliable predictors of psychological well-being. Furthermore, lower SES was a risk factor associated with an initial occurrence of depressive symptoms, as well as adolescent psychological distress. The economic conditions of the family were also an indication of the neighborhood context, quality of schools, and the broader community. Much of the mental and physical health risks of individuals living in poverty are a result of living without what one needs (Wadsworth & Santiago, 2008). Despite the obvious risks associated with poverty or low SES, consideration must be given to cultural values and beliefs in relation to Westernized beliefs of wealth. According to Bigfoot & Schmidt (1998), the acquisition of material goods is not as important to Native Americans as being a good person. Moreover, status and materialism are not highly prized in Native American communities. Thus, socioeconomic status and other westernized indicators of wealth and success must be considered along with cultural values when examining success indicators among Native Americans.

Perhaps even more perplexing is the finding that rates of suicide and homicide are 39% higher among Native Americans than that for other ethnic groups combined, and 90% of such deaths are alcohol related (Waller et al. 2003). According to Lemaster, Beals, Novins, et al. (2004), age-adjusted suicide rates in the American Indian/Alaskan Native population are more than 70% higher than that in the U.S. general population. Furthermore, according to Novins and associates (1999), several community based studies have identified factors by which suicide in Native Americans has been found to
be related to alcohol and substance use, gender, parental conflict, weak Indian and ethnic identity and loss of cultural support, academic problems, antisocial tendencies, and psychiatric symptomology (i.e. depression). Again, however, these findings may likely vary across tribes, as Natives Americans are a very culturally heterogeneous group.

Thus, the results of drug and alcohol abuse, drug and alcohol dependence, suicide homicide, unemployment, high birth rate, low SES, historical trauma, previously mentioned have caused great loss among Native American people. However, not much of the available literature focuses on patterns of achievement in Native Americans and which factors buffer some individuals from succumbing to the vast array of problems that plague Native American communities. Due to the heterogeneity between tribes, it is important that research focus on finding similarities between tribes while maintaining sensitivity to the differences of each tribe. Of seemingly equal importance, however, is the assessment of common psychological disorders across tribes using psychometrically sound assessments in attempts to identify similarities and differences in disorder presentation and etiology.

Thrane, Whitbeck, Hoyt, et al. (2004), examined measurement of depressive symptoms among American Indian adolescents as assessed by the center for Epidemiological Studies Depression Scale (CES-D), youth self-Report (YSR), and the Tri-Ethnic Center’s for Prevention Research Depression Scale (TEDS). Research findings have indicated that symptoms of depression are observed first during childhood, adolescence, or early adulthood. Kessler and Magee (1994) have confirmed that the early onset of depressive symptoms was a significant predictor of recurrence of depressive symptomology in adulthood. For girls, studies have found that the occurrence and the
emergence of symptom rates increased at a higher rate in adolescence, when compared to boys' with higher symptom rates occurring at 13 or 14 years of age in adolescent females (Thrane et al., 2004).

Thrane and associates (2004) used a sample that consisted of 213 children (116 boys and 97 girls) and parents. The study was conducted on three American Indian reservations in the upper Midwest. The rural communities all had high unemployment and poverty rates. Children who were enrolled as tribal members in the 5th-8th grades were eligible for participation. Ages ranged from 9-16 years of age (M=12.1 years). The annual household income per capita ranged from a minimum of $278 to a maximum of $25,000 for each household member. The median household income was reportedly between $15,000 and $20,000 per year.

The measures used in this study consisted of the following: The Center for Epidemiological Studies Depression Scale (CES-D), The Tri-Ethnic Centers for Prevention Research Depression Scale (TEDS), and the Youth Self Report Scale (YSR). The TEDS was designed as a culturally sensitive assessment of depression among culturally diverse youth. The CES-D was developed for use in the general population. It has, however, been tested among adolescents also. Reports among junior high students indicate a high prevalence of depressive symptoms among low-income families (Schoenbach et al., 1982). The YSR is an instrument used to assess psychopathology as well as behavioral and emotional problems in youth and adolescents. The YSR has also been used cross-culturally (Achenbach et al. 1990).

Moreover, the predictor variables were used in the analyses as possible correlates of TEDS depression, CES-D depression, YSR depression, and demographic
characteristics. The predictor variables consisted of: Self-esteem, which was measured by 11 items from the tri-ethnic center for prevention research at Colorado State University. Assessed feelings of self-worth and likeability. Negative life events scale was the sum of 13 items which measured various life events on a dichotomous scale used to assess endorsement of negative life events. And adolescent enculturation, which was a multiple dimension score of each youth's immersion in AI culture tapping into participation in various cultural activities. Measurement of depressive symptoms was scored such that higher values indicated higher levels of depressive symptomology. Results as shown by a simple correlation matrix concluded that the YSR and CES-D showed a positive relationship ($r = .45$), while the TEDS and the CES-D displayed a stronger relationship ($r = .59$). The results also illustrate the importance of culture in examining depressive symptoms among American Indian adolescents. The CES-D and the YSR indicate that enculturation is correlated with depressive symptoms (Beta weight = .15, $p < .05$; Beta weight = .15, $p < .01$), respectively, which could also indicate that relationships among enculturation and depression may pertain to identity confusion. However, the YSR and CES-D contain only little information regarding levels of enculturation due to the small amount of items on each assessment requiring responses to cultural activities (Thrane et al. 2004). Thus, results of study convey the importance of examining the implications of enculturation on psychological assessment and general well being in Native Americans.

Culture can be described in many ways; however, parents and caretakers can certainly be included as important facets in a person's culture of environment. Thus, one possible contribution to psychopathology in children, with respect to immediate cultural context, is that of the psychopathology of the parent(s). Using the University of Michigan
Composite International Diagnostic Interview (UMCIDI), Whitbeck, Hoyt, Johnson, et al. (2006), examined the prevalence of: Alcohol abuse, alcohol dependence, drug abuse, major depressive disorder (MDE), and Generalized Anxiety Disorder (GAD) in 861 parents/caretakers (236 males and 625 females) of 741 tribally enrolled children age 10-12 years old Native American and Canadian First Nations people from the Northern Midwest area. Results were then compared to Northern Plains and Southwest tribal samples from a previous study. Male caretakers ranged in age from 21-68 years with an average age of 41. Mothers/female caretakers ranged in age from 17-77 years with an average age of 39 years. One-third contained biological parents (36%) and 23% were single mother households. Remaining families were of other configurations: Mother-stepfather (10%), Mother living with other relatives (7%), single biological fathers (7%), child living with grandparents (7%). Single-parent family household were twice as likely as two parent households to make $15,000 or less (46% vs. 23.5%). More than one-fourth (27.9%) of single parent households were getting by on $10,000 or less per year. Median income for single parent families was under $20,000 compared to about $25,000 for two-parent families. Financial assistance was common. About one-half (½) of single parents received food stamps. While one in three of two parent households received food stamps.

According to Whitbeck, Hoyt, Johnson, et al. (2006), 74.6% of AI and First Nations Canadian adults from northern Midwest culture met lifetime criteria for at least one of the five mental disorders assessed. Males were also more likely than females to meet lifetime criteria for a mental disorder (85.6%, 70.4%, respectively). Moreover, 24.5% of adults met lifetime criteria for two or more disorders. Substance use disorders were far higher than that of the national sample as measured by the National Comorbidity
Survey (NCS). Fifty-four percent of Canadian First Nations were likely to meet lifetime criteria for alcohol abuse, and were four times more likely to meet lifetime criteria for alcohol abuse than the NCS at 13.1%. Approximately 25% of adults met 12-month criteria for at least one of the five disorders (Whitbeck, et al. 2006). Six percent met 12-month criteria for two disorders.

Prevalence rates for Major Depressive Episode (MDE) and Generalized Anxiety Disorder (GAD) in the Native American sample were similar to prevalence rates of MDE and GAD from that of the national sample (NCS). Northern Midwest Native American males reported lower rates (9.6%) than the NCS (13.7%), however, rates among Northern Midwest Native American males and Southwest Native American males were very similar (7.2%, 9.2%, respectively). The rates for GAD for Northern Midwest Native American Males was about half that of the NCS sample at 1.9% and 4.1%, respectively.

Rates of lifetime MDE among Northern Midwest women (20.7%) was very similar to NCS females (22.1%). Northern Midwest Native American women were more likely to meet lifetime criteria for MDE than either Southwest Native American women (14.3%), or Northern Plains women (10.3%). Moreover, Northern Midwest Native American females were four times more likely than their male counterparts to meet criteria for GAD, and nearly three times more likely than males to meet criteria for lifetime MDE. With respect to comorbidity within this sample, nearly all who met lifetime criteria for drug abuse also met lifetime criteria for alcohol abuse. Moreover, those who met lifetime criteria for MDE and GAD, nearly all met criteria for alcohol abuse. Most adults meeting criteria for GAD also met criteria for MDE. Eighty-five percent of Northern Midwest men and 70.4% of women met lifetime criteria for at least
one of the disorders. All Native American and Canadian First Nations individuals sampled within this study were parents/caretakers of children ages 10-12 years. Findings definitively reflect the need for competent mental health service and interventions among Native populations with respect to the ubiquity of substance use disorders and its comorbid presentation with internalizing disorders (e.g. MDE and GAD). Future research foci should concentrate on culturally sensitive epidemiological studies on Native well-being from nation to nation, in order to identify risk and resilience in the construction of good practices (Whitbeck et al. 2006).

The results of Whitbeck et al. (2006), illustrate the need to parse out the role of enculturation on drug abuse and potential drug abuse resistance. For example, the Northern Midwest sample endorsed a far higher prevalence of drug and alcohol abuse than that of a Southwest Native sample using similar instruments. In order to find commonalities among Native communities we must dissect the cultures and examine the differences for effective cross-cultural interventions.

Beals et al. (2005) recognized the importance of assessing the differences between tribes within the U.S. with respect to the prevalence of DSM-IV disorders and Help-Seeking behaviors. Using the University of Michigan version of the CIDI (UM-CIDI) to measure psychiatric disorders as adapted to use with American Indians; Beals, et al. (2005) sought to determine the lifetime and 12-month prevalence of common DSM-IV disorders, their demographic correlates and help-seeking behavior among two culturally distinct tribes in the U.S. The sample included 3,084 (1446=Southwest, 1638=Northern Plains) tribal members from the two tribes, ages 15-54 years. Using the UM-CIDI, the study sought to yield diagnoses for the following DSM-IV and DSM-III disorders: Major
depressive episode (MDE), dysthymic disorder, Generalized anxiety disorder (GAD), posttraumatic stress disorder (PTSD), alcohol abuse, alcohol dependence, drug abuse, and drug dependence.

Results indicated that both depressive and anxiety disorder prevalence were found to be at comparable levels for each tribe. However, substance disorders, especially alcohol dependence, were significantly less prevalent in the southwestern tribe than in the northern plains tribes. Women’s rates for PTSD were found to be almost twice that of men’s rates in both tribal groups. Southwest women also endorsed one-half the prevalence of substance use than northern plains women, and around one-third that of the men in both tribal samples. For 12-month rates levels of depressive disorders or anxiety disorders did not differ between northern plains and southwestern tribes. Substance use was the most common disorder for men in both tribes. Anxiety disorders were most common among southwestern women. For northern plains women, rates of substance use disorders and anxiety were comparable, and both more prevalent than depressive disorders.

With respect to comorbid presentations, participants with depressive and/or anxiety disorders were at increased risk for substance disorders and vice versa. Southwestern men and women with one disorder were about 3 times more likely to have a second or co-occurring disorder. Northern plains men and women with one disorder were approximately 5 times as likely to have a second or co-occurring disorder. Demographic correlates of disorder presentation revealed that participants with more than a high school education were at greater risk than were those with less formal education for depressive and or/anxiety or comorbid disorders compared with those having no
disorder. PTSD was found to be more common in the participating tribal samples than in other populations using similar assessment methods. Comorbidity between internalizing disorders and substance use disorders in the tribal samples suggest need for comprehensive treatment planning. Southwestern men and women were more likely to seek help from traditional healers than from conventional western healers, and more likely to seek help from traditional healers than the Native American sample from the Northern Plains tribe. Indicating that level of enculturation, although not directly measured, may have had a role in the differences in help seeking between the Southwestern tribal sample and that of the Northern Midwest tribal sample.

Research indicates a link between exposure to adversity, especially in childhood, and the onset of substance use disorders (Filitti et al., 1998; Kessler et al., 1997; Turner & Lloyd, 1995, 2003; as cited in Whitesell, et al., 2007)). Being that some Native communities suffer such high rates of substance use disorders while also suffering from other confirmed adversities, the relationship between adversity and drug abuse is important for implications of possible interventions. Thus, investigation into the prevalence of substance dependence among Natives, as well as confirmed adversity, compared to that of other populations might help explain the relatively high rates of substance abuse among Native Americans. Moreover, temporal indicators of risk may provide important information on intervention effectiveness and practicality. Thus, it is important to understand the nature of risk in Native American communities and possible relationships shared between risk and substance use onset, and substance abuse disorder.

Whitesell, et al. (2007), examined the proximal and distal effects of adversity with respect to the onset of symptoms of substance dependence in Northern Plains and
Southwest reservation communities. Proximal effects are the immediate effects of specific adverse experiences or events. Distal effects, in contrast, represent long-term effects of exposure to adverse events. Moreover, due to the cultural differences across reserves in the U.S. and Canada, this study used a sample similar to that of other epidemiological studies on American Indians to dissect the impact of region/reservation on communal differences.

Whitesell and associates (Whitesell et al. 2007) used 3084 participants (1677=female, 1407=male), ages 15-54 year old, the participants were tribal members of two related Northern Plains tribes (NP) and a Southwestern tribe (SW), (N=1638; N=1446), respectively. Fifty-four percent of the sample was living below the poverty line, 45% had high-school education or equivalent (GED), 28% had attended at least some college, 58% were employed, and 56% were married. The measures included assessments of substance dependence from the DSM-IV diagnoses information, as well as the UM-CIDI, which has been adapted for Native communities. Symptoms of dependence were assessed for 10 substances: alcohol, marijuana, cocaine, inhalants, tranquilizers, sedatives, analgesics, stimulants, hallucinogens, and heroin.

With respect to measuring adversity, participants were asked to indicate whether or not they had experienced any of 30 specific adverse events, representing 5 types of adversity. Measurement of prior adversity in this study consisted of the following: Major childhood events that were 12 possible events that would cause significant disruption in a child's life: such as a child's own serious illness or hospitalization, separation from parents, parental unemployment, and parental divorce. Traumas were nine events that involved violence. Another three experiences were described as witnessed violence and
in particular family violence. Finally death of parents or siblings was categorized as significant untimely deaths. With respect to prior adversity, the study included questions regarding the temporal nature of the adverse experiences within the participants’ lives (i.e. when the experience occurred along the life-span). Measures of Five types of mood disorders were included in the assessment: major depressive episode (MDE), post-traumatic stress disorder (PTSD), generalized anxiety disorder (GAD), panic disorder, dysthymic disorder. Measurement of conduct disorders was also included in the assessment.

Results indicated that NP males had the highest rates of alcohol and substance dependence across samples. Both SW males and NP females also had alcohol and substance dependence rates significantly higher than that of SW females. The mean age of dependence symptom onset did not differ across either tribe or gender groups, being around 19-20 years of age in all groups. Initial occurrences of adversity were reportedly encountered earlier in life among females than males, and earlier in the life of NP participants as compared to the SW participants. NP females reported the highest prevalence of adversity, with 88% reporting lifetime exposure to at least one of 30 adverse experiences. The onset of substance dependence symptoms across adolescence indicated that males in both tribal groups had consistently higher risk of symptom onset of substance abuse than did females. Tribal differences were significant and consistent; NP had greater risk of symptom onset of substance dependence than did those in the SW. Those who reported proximal adversity were more than twice as likely to experience the onset of substance dependence symptoms as those that did not report proximal adversity. With each additional distal adversity the risk of substance dependence symptom onset
increased by 20%, independent of effects of proximal adversity. According to the model, distal adversity coupled with that of current experiences of adversity posed the greatest risk for substance dependence symptom onset. Effects of conduct problems and previous psychiatric disorder were significant. However, the relationship of adversity to the onset of substance dependence symptoms remained high despite taking previous symptoms of psychiatric disorder and conduct disorder into consideration. Thus, psychiatric disorder and conduct problems were found to only exert small effects on the onset of substance dependence symptoms. Results, which, show consistent effects of cumulative distal and proximal adversity across tribe and gender groups on the risk related to substance dependence, indicate that interventions should target adversity as prevention for substance use problems.

Efforts on interventions must begin early in childhood due to the effects of adversity, and before peak periods of symptom onset in order to reduce the risk of Native American children’s exposure to stressful and traumatic events. Due to the high amount of adversity on the reservations, a secondary goal would be to foster development of personal resources related to the concept of resilience, resources that will enable them to cope with inevitable adversity. The fact that proximal adversity causes risk of symptom onset to double within one year of adverse experience should aid in understanding of ways to provide immediate interventions. In particular, children in chronically adverse environments should receive special attention and intervention efforts due to a heightened risk for substance dependence. However, many of the same children that come from adverse environments succeed despite such considerable adversity, driven by
characteristics that contribute to success, or, protective factors that promote positive adaptation.

According to Chassin, et al. (2004), successful resolution of culturally salient developmental tasks marks competence within a society, which, have also been used in previous research on the concept of resilience. Masten, et al. (1995), identified 3 domains of developmental tasks that mark developmental competence in late childhood/early adolescence: academic achievement, conduct/rule abiding behavior, and social relationships. Furthermore, resilience necessitates exposure to risk factor(s), because children who are exposed to risk factors are at increased risk for developing psychopathology (Chassin, 2004). Thus, individuals who have suffered from identifiable risk factors should impart a great amount of information on the concept of resilience.

Clark & Chassin (2004) sought to examine the relationship of resilience to internalizing symptomology, and positive affect in children of alcoholics (COAs). Participants were 216 children of alcoholic parents, and 201 children of non-alcoholic parents. There was at least one child and at least one parent present in each family that were required to have completed data. Children were 11-17 years of age. The sample was primarily Caucasian (71%), and Hispanic (24%). The Child Behavior Checklist (CBCL) was used to assess adolescent self-report of internalizing symptoms. Positive affect was assessed using the Positive & Negative Affect Schedule. Social competence was also assessed from a Peer Involvement Scale and the CBCL. Furthermore, conduct/rule-abiding behavior was assessed from items on the CBCL describing conduct/rule abiding related problems. Academic competence was assessed via parent report of child's grades on a five-point likert scale. Children were classified as highly competent if they
performed as highly competent in at least two out of the three areas (conduct/rule
abiding, academic, social), which, was represented by scoring one standard deviation
above the estimated population average.

Results indicated that children classified as highly competent endorsed the lowest
level of internalizing symptomology and highest levels of positive affect. Children
classified as low in competence endorsed highest levels of internalizing symptomatology
and lowest levels of positive affect. For social and overall (i.e. competence in two out of
three domains) competence domains, results indicated a significant relationship between
parental alcoholism status and positive affect. Children without alcoholic parents reported
significantly greater levels of positive affect than COAs. There was also a significant
relationship between positive affect and competence, when controlling for other
variables.

Among other conflicts that plague Native Americans, suicide is correlated with
almost all other mental and physical health problems endemic to Native Americans.
According to Novins, et al. (1999), for example, several factors have been associated
with suicide, suicidal ideation, and suicide attempts among American Indian adolescents,
such as: gender, parental conflict, father not present in household, presence of family
member who attempted suicide, weak ethnic identity, loss of cultural supports, academic
problems, substance abuse, psychiatric symptomatology, and anti-social behavior. With
respect to the seriousness of suicidal ideation and actual completion of suicide, this area
becomes increasingly important when attempting to account for competence and
successful adaptation among Native Americans. Furthermore, due to the correlates of
suicide with certain risk factors, psychological assessment and risk assessment become
important endeavors in Native American communities; and, in particular, suicide assessment.

In attempt to understand correlates of mental health (i.e. antisocial symptoms, generalized distress, negative affect, substance abuse) disparities in Native Americans, Greene, et al. (2003), examined distress among a sample of Native Americans, as measured by statements on the SADS-L clinical interview, with respect shared relationships (correlations) to the MMPI-2 validity, clinical, content, and five supplementary scales. Greene, et al. (2003) examined the empirical correlates of the MMPI-2 with statements made on the SADS-L in American Indians from a total of 239 Plains (92 men, 147 women) and 490 Southwestern (209 men, 281 women) tribal members. Empirical correlates were examined by assessment of descriptive phrases from the SADS-L, which reflected symptoms and behaviors correlating with MMPI-2 validity, clinical, content, and supplementary scales. Empirical correlates between the SADS-L and the MMPI-2 were also examined to identify cultural differences between the normative group and the Plains and Southwestern Tribes. The Plains tribal sample averaged an age of 38.2 years, whereas the Southwestern tribal sample averaged an age of 36.6 years of age. The members of both tribes generally reported a high school education or less. Participants were interviewed and diagnoses were made using a modified version of the Schedule for Affective Disorders and Schizophrenia-Lifetime Version (SADS-L). Diagnoses were completed using the DSM-III-R. Correlates between MMPI-2 scales and descriptive statements that reflect symptoms and behaviors from the SADS-L were generally reflections of negative affect/general distress, symptoms of substance use, and antisocial behaviors. Correlations of .30 were selected as to reflect
clinical significance among correlates. Both men and women reported fewer symptoms when scales L and K were elevated, whereas, significantly more symptoms were reported when scale F was elevated. There were few correlations with scales 1 (Hs), 2 (D), and 3 (Hy). However, a number of significant correlations were found with scale 4 (Pd) for men and women, indicating a relationship between scale 4 and anti-social tendencies, problems related to drinking, and problems in relationships. There were also a few correlations with scale 7 (Pt) and scale 0 (Si) that reflected general distress, such as crying, lack of energy, and difficulties in concentration. Significant correlations were found with scale 6 (Pa) which reflected general distress in men; whereas, women tended to reflect symptoms such as hallucinations and grandiose thoughts with respect to scale 6. There were also significant correlations with scale 8 (Sc) which indicate a relationship to general distress, antisocial symptoms, and relationship problems as endorsed on the SADS-L.

Among content scales the Bizarre mentation (BIZ) scale was associated with more severe depression in men, and more cognitive, psychotic phrases in women. The Anger (ANG) scale was correlated with depressive, resentful or anger, and antisocial symptoms in men and cognitive symptoms and problems related to drinking, and violence, in women. The Family (FAM) Problems scale was associated with depressive and antisocial symptoms in men, and drinking and antisocial symptoms in women. Both the APS (Addiction Potential) and MAC-R (Macandrew Alcoholism) were more related to items reflecting general distress and negative affect than symptoms of alcohol and drug use. Ultimately, American Indian men tended to report symptoms of distress as loss of interest, changes in appetite, and sleep difficulties; whereas, women reported distress
with feeling pessimistic and feelings of guilt. Both men and women reported distress symptoms of a lack of energy, feeling adequate, and needing reassurance. Findings suggest differences between American Indians and the normed sample from which the MMPI-2 validation was derived. However, the differences appear to accurately reflect behaviors and symptoms that American Indian study participants experience.

The question is... what can we do about such adversity, or what can come of such adversity? Throughout societal, economic, and cultural oppression; American Indian people have managed to stay strong, but how can we maintain this? Resilience, the ability to overcome adversity through successful adaptation, seems the only answer to survive. Greene et al. (2003) indicated that many maladaptive tendencies among Plains tribal and Southwestern tribal samples correlate with items from the MMPI-2. Furthermore, the average ages of the Plains and Southwestern sample from Greene, et al. (2003) was, 38.2 and 36.6, respectively, reflecting the importance of initiating interventions for children and youth.

According to Masten et al. (1995) successful adaptation of individuals exposed to adversity can be assessed through achievement of salient developmental tasks, such as academic achievement. The only way society can conclude that a person is successfully adapting to environmental demands is to see them succeed in their culturally salient developmental tasks (e.g. academic achievement). Grounded in resilience theory and research is the assumption that, despite adversity, and oppressive living conditions people can thrive and development can continue, sometimes even stronger than before, and progress can be achieved toward positive outcomes. Furthermore, one widely known mechanism for success in life is education, as well as being a developmental task in
childhood and adolescence; education has been used as an indicator of good outcome due to its correlation with later success (Masten, 1999). According to Waller (2002), a problem in the research on resilience lies in the failure to consider culture and class. Thus, it seems necessary that research endeavors on the concept of resilience should focus on assessing socioeconomic class and an individual's culture and immediate environmental influences with respect to academic achievement.

Englund, Egeland, & Collins (2008), examined parent-adult relationships in relation to completion or non-completion of high school or receipt of an equivalent degree (GED). Using a low-income sample from the United States, consisting of 96 men and 83 women, participants were followed from birth through the age of 23. All participants were first-born children to mothers of a low-income socioeconomic status. The sample consisted of 67% Caucasian, 11% African American, 16% mixed ethnicity, 2% were other (Native American, Hispanic). High school dropout status was obtained via interviews conducted with the participants at age 19 and 23. The Peabody Individual Achievement test and two tests from the Woodcock Johnson Psycho-Educational battery-Revised (Passage Comprehension, Calculation) were used to assess academic achievement, at age 12 and 16, respectively. For an assessment of behavioral problems, teachers completed the Child Behavior Checklist-Teacher Report Form. Findings indicated that low-income youth continue to drop out at higher rates than other socioeconomic groups. Parental involvement in school has emerged as a significant predictor of high school graduation status (Englund, et al. 2008).

Teacher-child relationships as well as parent-child relationships have also been shown to predict graduation (Englund, et al. 2008). Thus, adult-child relationships may
be a prominent determinant of educational success or failure. For high-risk youth, who are on a pathway for academic failure, support from adults, and positive adult-child relationships were important factors in predicting academically competent students. Therefore, support from adults is a strong protective factor, among many, which, contribute to positive adaptation among high-risk individuals whom are up against seemingly insurmountable adversity. According to Kaplan (1999) resilience can be conceptualized as a relationship shared between factors that protect the individual, adverse experience (risk factors), and an eventual positive outcome deemed to be extraordinary considering the amount of adversity experienced. Thus, a model of resilience must contain three essential variables: Risk factors, protective factors, and positive adaptation (outcome). However, the evolution of resilience as a concept must be understood in order to provide a background to the nuances of such an important construct.

Waller (2001) examined findings from previous empirical research on the concept of resilience and synthesized an ecosystemic Perspective of resilience, which, holds that the organization of knowledge is interdependent between the individual and social systems (Queralt, 1996). Through this perspective development is a continuous process of adaptation between the individual and environment. Resilience research originated as a focus on within-person factors, from the study of risk. In the examination of the lives of at-risk children, an understanding surfaced that some children from adverse environments thrive in the midst of adversity and become successful, competent adults (Anthony, 1987; Garmezy, 1994; Masten, Best, & Garmezy, 1990; Murphy & Moriarty 1976; Rutter, 1979; Werner & Smith, 1982; As cited in Waller, 2001). Recurring themes from the
literature indicate that individuals who face adversity have more positive outcomes than one would think based on the risk faced. Initially, resilience was conceptualized as the result of personality traits or coping styles that enabled children to continue along a positive developmental trajectory despite being confronted with significant adversity. However, there were many problems with the initial definition of resilience including its failure to consider the interaction of the environment with the individual. Research indicates that the right combination of protective factors can outweigh that of the negative impact provided by risk factors (Werner & Smith, 1992; as cited in Waller, 2001).

- Resilience is not a personal characteristic but a bidirectional relationship where individuals influence life situations as well as being influenced by them (Waller, 2001). Moreover, resilience is not static; a person may respond differently to the same stressor at different points of time in his/her life. Further, a person may be resilient to one adverse circumstance, yet vulnerable to that of another adverse circumstance. According to Masten et al., (1999); Rutter & Rutter, (1993; as cited in Waller, 2001), risk and protective factors tend to be pervasive, or, a person confronting adversity in one context is likely to be confronting adversity in another context, whereas, a person with resources in one context is likely to have resources in another context. Furthermore, it is evident that adversity is cumulative; specifically, exposure to multiple risk factors poses a greater risk to development than exposure to one risk factor (Rutter 1979). Furthermore, according to Rutter (1979), the presence of multiple risk factors/stressors exacerbates the impact of an individual stressor. Smokowski (1998; as cited in Waller, 2001) reported that “risk chains” are links between risk factors (e.g. poverty is related to parental
unemployment, single-parent households, high parental stress, lower educational attainment, and an array of other factors). In contrast, protective factors form "protective chains". Barocas et al. (1985) found that exposure to multiple risk factors significantly affected social and intellectual development of children. Despite risk factors having a cumulative effect on development, Werner & Smith (1992; as cited in Waller, 2001), indicated that variations of protective factors can outweigh the negative impact of exposure to multiple risk factors, leading to positive outcomes.

Findings from resilience research have also indicated that risk/protective factors have a "ripple effect", leading to future risk/protection as a result. Moreover, Garbarino (1994; as cited in Waller, 2001), referred to this effect as "terminal thinking", which is a consequence of repeated trauma, and, essentially causes individuals to have a negative self-appraisal. However, a protective social influence can protect the individual, by engendering positive self-appraisals and constructive behavior (Waller, 2001). Waller (2001) asserts that risk factors and protective factors are not dichotomous. Risk factors can become protective factors when an individual develops new competencies. Resilience has also been recognized as a multidimensional concept, which can best be understood as a product of transactions (Walsh, 1998; as cited in Waller, 2001).* Furthermore, risk and protective factors may be biological (e.g. neurobiological disorders, cognitive skills), psychological (psychiatric symptomology), social (dangerous neighborhoods), spiritual (presence or absence of religion), environmental (parental alcoholism), or any combination (Ashford, LeCroy, & Lortie, 2000; as cited in Waller, 2001). Risk and protective factors may occur within the individual, family, community, or larger systems (e.g. poverty, racism, or 9/11/2001 terrorist attacks). Risk and protective factors are not
fixed variables, they are dynamic, and their effects can only be understood in terms of the context in which the interaction occurs between the risk/protective factor and the individual. The ecosystemic perspective suggests that protective influences can be introduced to an individual’s life through any relationship within the any part of the environment, or ecosystem.

“Research on psychosocial development that ignores the conditions of concentrated and chronic adversity (e.g. racism, poverty, limited access to resources) limits understanding of development in general, and resilience in particular” (Waller, 2001 p. 294). Furthermore, risk by association has been a concern in social science research due to the fact that risk is associated with membership, leading researchers to pathologize entire populations (Waller, 2001). Due to the misperceptions associated with “risk by association” being passed as scientific knowledge, social science researchers need to attend to strengths, potentials, supports, and resources. Waller (2001) argues that narrative approaches that require subjective experience may reveal protective factors not apparent to researchers. Subjective, personal narratives may also be important due to the dynamic nature of risk/protective factors. Narrative approaches give an appraisal of stressful life events and perception of social support that are important mediators of psychological distress and predictors of adaption (Lazarus & Folkman, 1984, as cited in Waller, 2001). The current challenge of resilience research is to understand conditions in which anyone could prosper, or rebound from (Benard, 1991; Garmezy, 1994, as cited in Waller, 2001). Further, researchers often define resilience in terms of external adaptation (e.g. academic achievement, absence of delinquency) or internal adaptation criteria (psychological well-being or low levels of distress), or both. Thus, characteristics of
resilience and specific outcomes such as academic achievement and/or absence of psychopathology are needed in order for researchers and society alike to understand an individual's capabilities and extraordinary achievement despite extraordinary adversity. Waller (2001) provided a comprehensive overview of empirical literature on the concept of resilience in contextualizing resilience as ever changing between the individual and the environment. Masten et al. (1999) performed a longitudinal examination of cultural and environmental variables in relation to academic achievement, conduct-rule abiding behavior, and peer social acceptance over time in childhood and again in adolescence.

Masten et al. (1999), studied competence in childhood and adolescence in relation to adversity over time. The study focused upon two questions. First, how are intellectual capacity and parenting quality related to competence from childhood to late adolescence? Second, how do resilient adolescents differ from maladaptive peers who have faltered in the context of adversity, and from competent peers who have not experienced such adversity (Masten et al. 1999)? High adversity was defined as severe to catastrophic levels of adversity both in childhood and adolescence (Masten, 1999).

The study examined competence in relation to adversity and the resources utilized, using both a variable-focused approach and a person-focused categorical approach. Competence was defined in terms of effective performance on three major age-developmental tasks: academic achievement, conduct (rule abiding behavior vs. antisocial behavior), and peer social acceptance. Resilient individuals were defined as being similar to competent individuals with respect to outcome (i.e. effective performance on three major age-developmental tasks) but reported exposure to high adversity. Maladaptive individuals like that of resilient individuals, reported high
adversity but were divergent in outcome, in that, maladaptive individuals did not achieve salient developmental tasks associated with competence. Two major resources, parenting quality and intellectual functioning, were investigated as influences on the course of competence. Variable-focused analysis were used to test linkages between three major developmental domains of competence, and a set of predictors including adversity and two potential protective variables, IQ and parenting quality. Resilient and maladaptive groups of individuals were identified by cut-off scores based on answers to competence indicators in adolescence, and lifetime adversity levels across childhood and adolescence. Life events were classified as to whether the child could have influenced the event, or whether family, or a larger community influenced the event. For example, death of a parent was a family event considered to be independent of the child's behavior. This study used data from a longitudinal study of 205 children (91 males, 114 females) ages 8-12 years, 27% minority composition recruited from two urban schools. Duncan Socioeconomic status was calculated for each family, based on the higher occupational status of the parent or a stable parenting partner in the household.

Two follow-up assessments were obtained from the longitudinal study of 8-12 years old children in the third through sixth grades. The first follow-up assessment, approximately seven years after the initial assessment, occurred when the participants were about 14-19 years old. The second follow up was obtained 10 years after the initial assessment, when the participants were 17-23 years old. 202 of the initial 205 participants followed up on the last assessment. Adversity was measured with the use of questionnaires assessing life events in the past 12 months and a lifetime life events measure. Competence in childhood was measured in the spheres of academic, social, and
conduct/behavior. IQ, parenting, and SES were used to indicate psychosocial resources.

Well-being was assessed using the following attributes (with scales in parentheses): Self-
worth (Harter), Global distress (SCL90-R), Negative emotionality (Multidimensional
Personality Questionnaire (MPQ)), Negative emotion (Profile of Mood States (POMS)),
Positive emotionality MPQ, and Positive emotion (POMS).

Results were included on 189 individuals who completed the assessments over the
longitudinal study. Competence in childhood was related to number of resources and
lower adversity. Hierarchical multiple regressions tested the link of cumulative adversity,
parenting, and IQ to competence. Socioeconomic status (SES) a known correlate of child
and adolescent competence was also entered as one of the variables within the regression.
Results indicated that IQ and SES were related to academic achievement. Upon
inspection, parenting was found to be the key variable overlapping with SES in predicting
social competence. Alone, either variable was significantly related to competence;
however, when SES or parenting was controlled the other was non-significant, suggesting
a shared variance. Results also suggest that SES was a significant predictor of academic
achievement for majority children but not minority children. Results of the dimensional
analyses supported the hypotheses that IQ and parenting served as resources for
competence and protective factors, with respect to the development of pro-social
behavior in a high adversity environment. Both IQ and parenting however, shared
predictive variance with SES.

Comparisons of resilient (adequate competence, high adversity), maladaptive (low
competence, high adversity), and competent (adequate competence, low adversity)
individuals were done with planned comparisons. Competence was defined as adequate
when an individual's score was higher than one-half standard deviation below the mean of the three sample indicators of competence at outcome during late adolescence. Low competence was defined as an individual's scores falling more than one-half standard deviation below the sample mean of at least two of the three competence indicators (i.e. academic achievement, conduct, peer social acceptance) (Masten, 1999). Analysis of internal adaptation (emotional well-being) revealed that resilient adolescents resembled competent adolescent more than that of maladaptive adolescents. The negative emotionality (NE) scale and subscale stress-reactivity was considerably higher in the maladaptive adolescents that the other two groups. Resilient girls were found to report significantly more positive emotional engagement than that of competent girls (Masten, 1999).

Ultimately, results reported by Masten et al. (1999) led to four overarching conclusions; development of competence is related to psychosocial resources, resources are less common in those that grow up in the context of adversity, when good resources are present outcomes are generally positive, and maladaptive adolescents tend to have a history of adversity, and competence problems. Results corroborate evidence from previous studies that suggest that parenting and cognitive skill is advantageous to overcoming adversity. SES shared a relationship with long-term educational attainment, which was different from that of parenting or good intellectual skill. Qualities of the child or parent may account for the relationship between SES and competence. Minority status appeared to have no effect on competence or resilience when resource variables were controlled. In adolescence, resilient individuals generally reported more negative affect.
than competent peers. According to Masten (1999), future research should continue to look at the development of negative emotionality and its relationship to resilience.

Examination of the interplay between nature and nurture in development is also important for future research on the concept of resilience. In particular, resilience research must focus on the relationship between identifiable stressors in development and identifiable developmental tasks while attempting to account for protective factors, which, act as moderators to the achievement of developmental tasks. Furthermore, a lack of protective factors may produce negative outcomes, but the presence of certain protective factors will enhance positive outcomes. Understanding the implications of protective factors in the development of competence, Connor (2006) tabulated a number of protective factors to assess for protective mechanisms that individuals possess in an attempt to create and validate an assessment of resilience.

There have been a number of self-report inventories developed to assess the construct of resilience in adults. Connor (2006) developed the Connor-Davidson Resilience Scale (CD-RISC), which is a brief, self-rated questionnaire to quantify resilience with 25 items rated on a five-point scale (0-4), with higher scores reflecting greater resilience. Connor (2006) assessed resilience in a sample of patients with Post-Traumatic Stress Disorder (PTSD) using the CD-RISC. Connor (2006) focused on 3 areas with respect to resilience in PTSD inpatients: 1) description of characteristics related to resilience, 2) examine the available methods of assessing and quantifying resilience, 3) discuss effects of clinical scales to assess effect of treatment strategies on resilience. Assessment of the reliability and validity of the CD-RISC confirmed that scores could improve with treatment in patients with PTSD. The Stress Vulnerability
Scale (SVS) was also utilized to assess stress vulnerability in the sample. The SVS is a one-item, 11-point visual analog, stress vulnerability (i.e. resilience impairment) assessment. Participants measure stress coping ability with the SVS.

Statistically significant improvement with therapy was related to 19 of the 25 items on the CD-RISC, the items that exhibited the highest statistical significance (p < .0001), involved: gaining confidence from past success, feeling in control, having the ability to cope with stress, knowing where to turn for help, and being able to adapt to change (Connor, 2006). The items most closely related to resilience were: being able to adapt to change, and ability to bounce back after illness or hardship. Longitudinal studies are needed in order to further understand relationships between resilience and post-trauma symptoms on coping ability using resilience as a predictor of outcome.

"The great surprise about resilience is the ordinariness of the phenomena" (Masten, 2001). According to Connor (2006), resilience is considered one of the most important factors in assessing, both, healthy and pathological adjustment following trauma. Furthermore, Masten (2001) defined resilience as good outcomes and successful adaptation in life despite serious threat to adaptation or development. Thus, individuals cannot be considered resilient unless they have suffered significant threat to their development (i.e. current or past hazards judged to have the ability to seriously threaten normal development). Risk factors such as low socioeconomic status, exposure to maltreatment or violence, biological child of a parent with schizophrenia, are established statistical predictors of subsequent developmental problems, with respect to past research findings (Masten & Garmezy, 1985; as cited in Masten, 2001). Moreover, Children who experienced parental divorce early in childhood are more likely to experience
psychological dysfunction as well as depression and anxiety disorders (Harris, Brown, & Bifulco, 1990; Mcleod, 1991; Tweed, Schoenbach, George, & Blazer, 1989; as cited in Thrane, et al. 2004). As a result of divorce or separation, mother-only households suffer from economic devastation, as Garfinkel & McLanahan (1986; as cited in Thrane et al., 2004) reported that only 50% of single mothers have incomes above the poverty line.

With respect to Socio-Economic status, Holzer et al. (1986) asserts that SES is one of the most reliable predictors of psychological well-being (as cited in Thrane et al., 2004).

However, protective factors (i.e. sense of humor, hopefulness, self-efficacy, good interpersonal relationships, self-confidence, viewing obstacles as challenges, etc.) have been found to provide a buffer against negative developmental outcomes (Waller, 2001). Thus, resilience can be thought of as an interaction of risk factors with protective factors in the determination of successful adaptation (good outcome), or unsuccessful adaptation (bad outcome).

Many researchers have defined resilience in terms of the observable track record of meeting the major expectations of a given society or culture historical context for the behavior of that age or situation (i.e. salient developmental tasks, developmental criteria, cultural-age expectations). However, researchers concerned with substance abuse and psychopathology are usually concerned with absence of psychopathology or a low level of symptoms and impairment as the criterion for resilience rather than presence of academic or social achievements. Researchers often define resilience in terms of external adaptation (e.g. academic achievement, absence of delinquency) or internal criteria (psychological well-being or low levels of distress), or both (Masten, 2001).
With respect to the present study of resilience in Native Americans, participants will be designated as “high risk” through the endorsement of items from a tabulation of risk factors developed into a dichotomous (yes/no) risk assessment. Risk factors implemented into the risk assessment are those, judged by literature to have negative impacts on development (i.e. low SES, child abuse, neglect, parental divorce, single-parent home, parental drug/alcohol abuse, teen pregnancy, community violence, etc.). The risk assessment variables will be continuous. A measure of resilience will be obtained from each participant using the scores on the resiliency questionnaire (Connor-Davidson Resilience Scale (CD-RISC)). Our measure of resilience (i.e. CD-RISC scores) will be continuous measure with a higher score indicating more resilience.

Academic achievement will be used as one measurement of successful adaptation, or outcome, due to the relationship shared between academic achievement and later successful life adaptation. Academic achievement, then, will be used as a dependent variable in the present study, denoted as educational resilience. Educational resilience, in the present study, will be presented with evidence of educational achievement among participants. For the purposes of the present study, educational achievement of participants will be measured via Grade Point Average (G.P.A.), and credit hours completed.

The present study will examine the impact of self-reported resilience (using the CD-RISC resilience assessment (Connor-Davidson, 2003)), previous exposure to trauma, socioeconomic status (SES), and the interaction of these predictors on a number of outcome variables. Ultimately, the present study seeks to compare resilient and competent individuals, whom are similar in outcome (i.e. students at the university level),
but divergent in risk or adversity experienced. According to Luthar (1991) studies examining differences between competent and resilient individuals will shed light upon resources required to produce successful adaptation despite adversity. The possibility that the effects of adversity can be moderated by qualities of the individual or environment is represented and tested by interaction models in variable-focused analyses. Variable-focused analyses are statistical analyses that use multivariate statistical procedures (e.g. multiple regression) to examine relationships among measurements of degree of risk or adversity, and protective qualities of the individual or environment that function to buffer individuals from negative consequences of risk or adversity (Masten, 2001). According to Masten (2001) variable focused analyses have identified that parenting qualities, intellectual functioning, SES, and positive self-perceptions have broad correlations with multiple domains of adaptive behavior. Thus it seems plausible that variable focused analyses will identify the independent contribution of risks and protective factors to the outcome. The outcome variables measured will include, school achievement, resilience (CD-RISC scores), stress exposure, and scores from psychological assessments. We will examine whether self-reported resilience will moderate the impact of exposure to stressful life events. In particular we believe that:

1. Higher resilience scores will be positively correlated with G.P.A, and share a negative correlation with mental health problems (i.e. scores on psychological assessments).
2. Previous stress experienced will be negatively related to G.P.A and positively related to higher mental health problems (i.e. higher scores on psychological assessments).
3. High amount of self-reported risk will be offset by high resilience (i.e. CD-RISC scores).
4. Individuals who are bicultural, enculturated, or assimilated as assessed by the NPBI-R will endorse less psychopathology (i.e. lower scores on the psychological assessments), as well as endorse higher scores on the resiliency assessment than individuals who identify as marginal.
CHAPTER II

METHOD

Participants

Participants consisted of 60 Caucasian and 33 Native American participants, ages 18-37, regardless of gender. Participants will be recruited from the University of North Dakota (UND) campus. In particular, participants will be recruited from the Psychology department and the American Indian Student Services building on the UND campus. Native American participants will be from a variety of Midwest tribes.

Measures

Demographic Questionnaire is a 19-item assessment of basic demographics (i.e. age, race, gender, education, employment, income, etc.) along with assessment of use of controlled substances, engagement in sedentary behavior, and basic health information regarding known illnesses.

The Connor-Davidson Resilience Scale (CD-RISC) (Connor & Davidson, 2003) is a brief, 25-item assessment measure used to quantify resilience, each item rated on a five-point scale (0-4). Total score for the CD-RISC ranges from 0-100, with greater resilience reflected by higher score on the measure. The scale is based on how the subject has felt in the month prior to assessment (Connor & Davidson, 2003). Internal consistency of the CD-RISC using cronbach’s alpha was .89 in the general population of the normative sample. Test-retest reliability was assessed with a group of PTSD patients, which
demonstrated a high level of agreement between scores (intra-class correlation coefficient=.87) at time 1 and time 2.

The Quality of life Inventory (QOLI) (Frisch, 1994), is a measure of importance and satisfaction in 16 life areas of life, including: health, self-esteem, love, goals and values, play, learning, creativity, helping, friends, children, relatives, home, neighborhood, and community. Importance and satisfaction scores are multiplied to yield a weighted score for each area. Further, the total score can also be used as an assessment of risk for depression.

The Northern Plains Biculturalism Inventory-Revised (NPBI-R) is a twenty-item questionnaire used to assess identification with Northern Plains American Indian and Midwestern European American (White) culture. Specifically, the assessment measures level of cultural identification among Northern Plains American Indians to both American Indian traditional culture and European-American culture. The inventory focuses on social behavior assumed related to underlying constructs described as attitudes, beliefs, worldview and acculturation (Allen & French, 1994). Factor analysis of the revised version (NPBI-R) revealed two factors inherent to the measure: American Indian Cultural Identification (AICI), and European Cultural Identification (EACI). A high score on the AICI and a low score on the EACI reflects a traditional orientation, whereas, a low score on the AICI and a high score on the EACI reflects immersion into the majority European American cultural orientation. High scores on both EACI and AICI indicate a bicultural orientation, whereas, low scores on both, EACI and AICI, indicate that the individual is marginal in cultural orientation. The measure demonstrated good internal consistency with a Cronbach’s Alpha coefficient of .77. Factor 1 associated
with AICI obtained an alpha coefficient of .87. Factor 2 associated with EACI obtained an alpha coefficient of .74.

The Substance Abuse Subtle Screening Inventory-III (SASSI-III) is a brief, objectively scored, screening instrument for substance use disorders. The measure is comprised of 67 true-false items, along with an additional 12 items assessing alcohol use (FVA) and 14 items assessing drug use (FVOD). SASSI-3 has a profile validity of .94. The positive predictor power is .98. The specificity and sensitivity of the SASSI-3 are both .94.

The Center for Epidemiological Studies-Depression Scale (CES-D) is a 20-item measure of depressive symptoms that was developed for use in the general population. Further, the CES-D was developed as an epidemiological assessment of depression used to determine symptom severity that has been used on Native Americans (Thrane, et al. 2004). The CES-D has displayed good internal consistency as well as good construct and concurrent validity, with reliability coefficients ranging from .8 to .9.

The Tri-Ethnic Center’s Research Depression Scale (TEDS) was designed as a culturally sensitive instrument for identifying depressive symptomology among culturally diverse samples. The TEDS utilizes raw scores to indicate depression and allows respondents to subjectively measure the frequency of depressive symptoms. Furthermore, the administration of the TEDS allows for subjective responding with respect to presentation of symptoms (Thrane, et al. 2004).

The Symptoms Checklist 90-Revised (SCL 90-R) is an assessment of global distress over a one-week period, assessing current symptoms on a five-point scale. The SCL 90-R consists of 90 descriptions of symptoms rated by the client in terms of relative severity. The SCL 90-R contains three global indexes related to the intensity and number of
symptoms endorsed. The SCL 90-R also contains nine symptoms dimensions (i.e. Anxiety, Obsessive-Compulsive, Somatization, Interpersonal sensitivity, Depression, Phobic Anxiety, Hostility, Paranoid Ideation, and Psychoticism). Internal consistency of the nine symptom indexes ranged from .79 to .90. Test-retest reliability for the nine symptom dimensions ranged from .78 to .90 (Groth-Marnat, 2003).

Stressful Life Events Questionnaire is an assessment derived from the Psychiatric Epidemiology Research Interview Life Events Scale (PERILES) (Dohrenwend, Krasnoff & Askenasy, 1994), researchers modified the PERILES with events added that are commonly experienced in childhood and adolescence, which are perceived as stressful based on the empirical research of age appropriate risk factors. The present scale is comprised of 103 items representing possible stressful life experiences. Items are answered in likert-type format on a scale from 0-7, with 0 indicating that the test subject did not experience the event, and 1-7 indicating that the test subject experienced the event and perceived the event to be minimally stressful (i.e. “1”) to extremely stressful (i.e. “7”). Participants are instructed to identify symptoms, based on experience and perceived severity, over the course of their life, up to time of assessment. Some items were omitted from the PERILES that were believed to be age inappropriate (e.g. retired), and those that were judged to produce little or no stress. A final question of general life stress was kept from the PERILES modified form.

Procedure

The present study consisted of a sample of 60 Caucasian participants and 33 Native American participants, recruited to participate in the present study. 93 participants were recruited from the University of North Dakota (UND) campus. Recruitment efforts
were in the form of flyers placed in various buildings on the UND campus and by mass recruitment at the American Indian Student Services (AISS). Individuals were tested in small groups of 1-10 participants. All participants were given an opportunity to agree/refuse to participate via an informed consent form. After obtaining an informed consent, participants were then given a demographic questionnaire along with packet of questionnaires to complete, consisting of the following assessments: Quality of Life Inventory (QOLI), Tri-Ethnic Depression Scale (TEDS), Center for Epidemiological Studies-Depression Scale (CES-D), Symptoms Checklist 90–Revised (SCL-90R), Northern Plains Bicultural Inventory-Revised (NPBI-R), and the Connor-Davidson Resilience Scale (CD-RISC). Participation, as outlined in the informed consent form, required approximately 1.5 hours of the participant’s time. Participants were offered extra class credit for participation in the experiment. If participants’ courses did not require participation in psychological research projects, then the participants were given $5.00 as compensation for participation in the experiment. Participants were then debriefed and informed of the study objectives and importance of the study. The participants were also informed that their personal information is held in confidence by the researchers, in a locked cabinet.
CHAPTER III

RESULTS

Age was analyzed using a 2 (Ethnicity) x 2 (Gender) factorial analysis of variance (ANOVA) with Age as the dependent variable, means and standard deviations of the analysis are presented in Table 1. A significant main effect of Ethnicity, $F(1,87) = 15.81, p<.01$ was found, indicating that on average Native Americans ($M=24.03$) reported being older than the Caucasian participants ($M=20.19$).

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>n=9</td>
<td>n=50</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>19.89</td>
<td>20.24</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>(.928)</td>
<td>(1.49)</td>
</tr>
</tbody>
</table>

The SCL-90-R was scored according to standardized procedures. Raw scores were then converted to T-Scores using the non-patient standardization sample. The means and standard deviations for each measure are presented in Table 2. Using the subscales and the composite measures of the SCL-90-R as the dependent variable, a series of 2 (Ethnicity) x 2 (Gender) factorial analyses of variance (ANOVA) were run on each subscale. There were no significant effects observed for any of the subscales or global indices of the SCL-90-R.
<table>
<thead>
<tr>
<th>Symptom Dimensions/Indices</th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>n=51</td>
</tr>
<tr>
<td>Somatization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>46.89</td>
<td>50.69</td>
</tr>
<tr>
<td>SD</td>
<td>(8.84)</td>
<td>(8.53)</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>58.67</td>
<td>55.37</td>
</tr>
<tr>
<td>SD</td>
<td>(7.63)</td>
<td>(9.08)</td>
</tr>
<tr>
<td>Interpersonal Sensitivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>58.67</td>
<td>58.04</td>
</tr>
<tr>
<td>SD</td>
<td>(11.48)</td>
<td>(10.71)</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>55.00</td>
<td>54.29</td>
</tr>
<tr>
<td>SD</td>
<td>(10.36)</td>
<td>(9.29)</td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>48.44</td>
<td>49.80</td>
</tr>
<tr>
<td>SD</td>
<td>(8.43)</td>
<td>(10.43)</td>
</tr>
<tr>
<td>Hostility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.56</td>
<td>54.12</td>
</tr>
<tr>
<td>SD</td>
<td>(8.72)</td>
<td>(8.39)</td>
</tr>
<tr>
<td>Phobic Anxiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.67</td>
<td>49.10</td>
</tr>
<tr>
<td>SD</td>
<td>(7.33)</td>
<td>(7.15)</td>
</tr>
<tr>
<td>Paranoid Ideation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>50.11</td>
<td>50.80</td>
</tr>
<tr>
<td>SD</td>
<td>(6.99)</td>
<td>(8.32)</td>
</tr>
<tr>
<td>Psychoticism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>50.11</td>
<td>52.45</td>
</tr>
<tr>
<td>SD</td>
<td>(8.18)</td>
<td>(9.70)</td>
</tr>
<tr>
<td>GSI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>55.00</td>
<td>53.94</td>
</tr>
<tr>
<td>SD</td>
<td>(8.09)</td>
<td>(9.08)</td>
</tr>
<tr>
<td>PST</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>53.33</td>
<td>53.55</td>
</tr>
<tr>
<td>SD</td>
<td>(8.08)</td>
<td>(8.43)</td>
</tr>
<tr>
<td>PSDI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>54.22</td>
<td>52.57</td>
</tr>
<tr>
<td>SD</td>
<td>(8.97)</td>
<td>(8.15)</td>
</tr>
</tbody>
</table>
The Substance Abuse Subtle Screening Inventory-III (SASSI-III) inventory was scored according to standardized procedures. Raw scores were then converted into T-Scores based on the gender based standardization sample. The means and standard deviations are presented in Table 3. Using the subscales of the SASSI-III as the dependent variables, a 2 (Ethnicity) x 2(Gender) Factorial ANOVA was run on each subscale. A significant main effect for the Face Valid Alcohol (FVA) subscale was found for Sex, $F(1,82) = 4.20, p<.05$. The significant main effect for Gender indicated that the females ($M=50.00$) scored higher than the males ($M=48.08$) in the sample on the FVA scale, indicating that females reported higher scores on the Face Valid Alcohol Scale, which corresponds to acknowledged alcohol use. There was a significant main effect found for Gender on the Family (FAM) subscale, $F(1,89) = 4.24, p<.05$. The significant main effect for Gender indicated that males ($M=55.47$) scored significantly higher on the FAM subscale of the SASSI-III than females ($M=50.04$), which indicates that males endorsed a similarity to family members of people who use substances. There were no significant effects observed for any of the other subscales on the SASSI-III inventory.
<table>
<thead>
<tr>
<th>T-Score</th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>FVA</td>
<td>n=9</td>
<td>n=49</td>
</tr>
<tr>
<td>Mean</td>
<td>48.78</td>
<td>52.06</td>
</tr>
<tr>
<td>SD</td>
<td>(10.17)</td>
<td>(7.60)</td>
</tr>
<tr>
<td>FVOD</td>
<td>Mean</td>
<td>45.44</td>
</tr>
<tr>
<td>SD</td>
<td>(1.01)</td>
<td>(5.85)</td>
</tr>
<tr>
<td>SYM</td>
<td>Mean</td>
<td>50.00</td>
</tr>
<tr>
<td>SD</td>
<td>(12.65)</td>
<td>(8.76)</td>
</tr>
<tr>
<td>OAT</td>
<td>Mean</td>
<td>47.67</td>
</tr>
<tr>
<td>SD</td>
<td>(8.54)</td>
<td>(7.43)</td>
</tr>
<tr>
<td>SAT</td>
<td>Mean</td>
<td>46.00</td>
</tr>
<tr>
<td>SD</td>
<td>(4.74)</td>
<td>(10.36)</td>
</tr>
<tr>
<td>DEF</td>
<td>Mean</td>
<td>51.78</td>
</tr>
<tr>
<td>SD</td>
<td>(9.72)</td>
<td>(8.64)</td>
</tr>
<tr>
<td>SAM</td>
<td>Mean</td>
<td>46.78</td>
</tr>
<tr>
<td>SD</td>
<td>(10.11)</td>
<td>(9.38)</td>
</tr>
<tr>
<td>FAM</td>
<td>Mean</td>
<td>57.11</td>
</tr>
<tr>
<td>SD</td>
<td>(8.04)</td>
<td>(8.14)</td>
</tr>
<tr>
<td>COR</td>
<td>Mean</td>
<td>47.56</td>
</tr>
<tr>
<td>SD</td>
<td>(10.53)</td>
<td>(8.88)</td>
</tr>
</tbody>
</table>
The Northern Plains Bicultural Inventory-Revised (NPBI-R) was scored according to standardized procedures using a median split technique, which utilizes the median of each ethnicity (American Indian, European American) to categorize each participant as belonging to a cultural scale according to their score relative to the median of their ethnic group. The means and standard deviations for each scale within the NPBI-R are presented in Table 4. Utilizing a 2 (Ethnicity) x 2 (Gender) Factorial ANOVA there was found to be a significant main effect for the American Indian Cultural Inventory (AICI) scale for ethnicity, $F(1.87) = 134.267, p<.01$. The significant main effect for the AICI scale found for ethnicity indicates that Native Americans ($M=38.98$) scored higher on this scale than Caucasian participants ($M=17.50$) within the sample. There was also a significant main effect for the EACI cultural scale for ethnicity, $F(1.87) = 46.40, p<.01$. The significant main effect for EACI scale found for ethnicity indicates that Caucasian participants ($M=24.30$) score higher on this scale than the Native American participants ($M=21.33$) within the sample.

<table>
<thead>
<tr>
<th>Cultural Scale</th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>n=51</td>
</tr>
<tr>
<td><strong>AICI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>15.78</td>
<td>17.80</td>
</tr>
<tr>
<td>SD</td>
<td>(3.63)</td>
<td>(4.767)</td>
</tr>
<tr>
<td><strong>EACI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>23.56</td>
<td>25.04</td>
</tr>
<tr>
<td>SD</td>
<td>(2.13)</td>
<td>(2.856)</td>
</tr>
</tbody>
</table>
The Center for Epidemiological Studies-Depression Scale (CESD) was scored according to standardized procedures and raw scores were used to denote depression through the duration of the week leading up to the assessment. The means and standard deviations from the CESD are presented in Table 5. A 2 (Ethnicity) x 2 (Gender) factorial ANOVA with CESD raw scores as the dependent variable revealed no significant effects.

<table>
<thead>
<tr>
<th>Table 5: CESD Raw Scores as a function of Ethnicity by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Raw Scores</strong></td>
</tr>
<tr>
<td>****</td>
</tr>
<tr>
<td><strong>n=9</strong></td>
</tr>
<tr>
<td><strong>CESD</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td><strong>SD</strong></td>
</tr>
</tbody>
</table>

The Tri-Ethnic Depression Scale (TEDS) was scored according to standardized procedures utilizing the raw score to denote general feelings of depression. The means and standard deviations are displayed in table 6. Analysis included a 2 (Ethnicity) x 2 (Gender) Factorial ANOVA with TEDS raw scores as the dependent variable. No significant effects were found in the analysis of the TEDS.

<table>
<thead>
<tr>
<th>Table 6: TEDS Raw Scores as a function of Ethnicity by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Raw Scores</strong></td>
</tr>
<tr>
<td>****</td>
</tr>
<tr>
<td><strong>n=9</strong></td>
</tr>
<tr>
<td><strong>TEDS</strong></td>
</tr>
<tr>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td><strong>SD</strong></td>
</tr>
</tbody>
</table>
The Quality of Life inventory (QOLI) was scored according to standardized procedures with raw scores being converted into percentiles based on the standardization sample, which consisted of: 65% female, 70% White, 14% Black, 13% Hispanic, 3% other (less than 3% Native American) ages 17-80, with an average age of 36.

Furthermore, the standardization sample had, on average, three to four years of post high school educational experience. Means and standard deviations for the QOLI are displayed in Table 7. Utilizing a 2 (Ethnicity) x 2 (Gender) Factorial ANOVA with percentile scores of the QOLI as the dependent variable revealed no significant effects.

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>n=51</td>
</tr>
<tr>
<td>QOLI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>50.56</td>
<td>59.55</td>
</tr>
<tr>
<td>SD</td>
<td>(34.41)</td>
<td>(30.14)</td>
</tr>
</tbody>
</table>

Further analysis utilizing Grade Point Average (GPA) at the University of North Dakota was done with a 2 (Ethnicity) x 2 (Gender) Factorial ANOVA with GPA as the dependent variable. A main effect of Ethnicity, $F(1, 87) = 11.30, p<.01$ was found. The significant main effect of Ethnicity on GPA indicates that there is a difference in GPA, with Native Americans (M=2.42) endorsing a lower GPA than Caucasian participants (M=3.21). Means and standard deviations are displayed in Table 8.

<table>
<thead>
<tr>
<th>GPA</th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>n=9</td>
<td>n=51</td>
</tr>
<tr>
<td>Mean</td>
<td>3.07</td>
<td>3.24</td>
</tr>
<tr>
<td>SD</td>
<td>(.73)</td>
<td>(.63)</td>
</tr>
</tbody>
</table>
An analysis of Credits completed at the university level was done with a 2
(Ethnicity) x 2 (Gender) Factorial ANOVA with credits completed as the dependent
variable. Means and standard deviations are displayed in table 9. A main effect of
Ethnicity was observed on credits completed, $F(1,87) = 11.00, p<.01$. The significant
main effect of Ethnicity on credits competed indicates that Native Americans ($M=80.47$)
endorsed a higher amount of credits completed than Caucasian participants ($M=56.68$).

<table>
<thead>
<tr>
<th>Table 9: Credit Hours as a function of Ethnicity by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Credit Hours</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

Analysis of the Stressful Life Events Questionnaire was done utilizing a 2
(Ethnicity) x 2 (Gender) Factorial ANOVA with the sum of the raw scores of the
inventory being divided by 10.3. With 103 questions, and scores from 0-7 on each
question, division of raw scores by 10.3 produced a final continuous scaled score from 0-
70. No main effects were found, however, Ethnicity approached significance, $F(1,85) =
3.46, p=.067$. This marginal effect indicated that Native Americans ($M=11.44$) reported
higher scores on the stress inventory than Caucasian participants ($M=7.45$). Means and
standard deviations are displayed in table 10. A second analysis of the Stressful Life
Events Questionnaire was done utilizing a 2 (Ethnicity) x 2 (Gender) Factorial ANOVA
on the aggregated number of life events experienced on each questionnaire. Due to
individual differences in perceived affects of negative life events, researchers believed
that an sum total of negative life events experienced would eliminate individual
differences in scoring as the analysis relied upon a sum total of adverse life events
endorsed by each participant. Specifically, a tally of each negative life event endorsed
with a non-zero number was tabulated for each subject, providing a tabulation of how
many negative life events they reported. No main effects were found, however, Ethnicity
approached significance, $F(1,89) = 3.43, p=.067$. Indicating that Native Americans
(M=27.64) responded as having experienced more negative (stressful) life events on the
stress inventory than Caucasian participants (M=19.71). Means and standard deviations
are displayed in table 11.

Analysis of the CD-RISC was performed with a 2 (Ethnicity) x 2 (Gender)
factorial ANOVA with raw scores on the resilience questionnaire as the dependent
variable. The instrument was scored according to standardized procedures and raw scores
were used in the analysis. A significant main effect of Ethnicity was found on resilience
scores, $F(1,87) = 4.551, p<.05$. The aforementioned statistically significant finding
indicates that Native Americans (M=78.39) endorsed higher mean scores of resilience on
the CD-RISC inventory than Caucasian participants (M=74.25). Means and standard
deviations for CD-RISC are displayed in table 12.
### Table 10: Stressful Life Events Questionnaire as a function of Ethnicity by Gender

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaled Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>n=8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stressful Life Events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>5.44</td>
<td>7.77</td>
</tr>
<tr>
<td>SD</td>
<td>(2.92)</td>
<td>(6.62)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>n=10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(8.98)</td>
<td>(12.67)</td>
</tr>
<tr>
<td></td>
<td>(6.37)</td>
<td>(13.26)</td>
</tr>
</tbody>
</table>

### Table 11: Stressful Life experiences as a function of Ethnicity by Gender

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregated Events</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>n=9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stressful Life Events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>17.67</td>
<td>21.75</td>
</tr>
<tr>
<td>SD</td>
<td>(8.50)</td>
<td>(15.84)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>n=11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26.00</td>
<td>29.27</td>
</tr>
<tr>
<td></td>
<td>(15.48)</td>
<td>(20.61)</td>
</tr>
</tbody>
</table>

### Table 12: Connor-Davidson Resilience Scale as a function of Ethnicity by Gender

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resilience Scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>n=9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD-RISC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>68.89</td>
<td>75.20</td>
</tr>
<tr>
<td>SD</td>
<td>(17.86)</td>
<td>(12.21)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>n=10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>81.00</td>
<td>77.14</td>
</tr>
<tr>
<td></td>
<td>(12.82)</td>
<td>(10.23)</td>
</tr>
</tbody>
</table>
In light of the significant differences in age between Caucasians and Native Americans, an analysis of Covariance (ANCOVA) was performed in order to analyze the effects of age on reported scores on the Stressful Life Events Inventory. The Native American participant pool had a higher mean age as well as endorsing a higher mean score on the Stressful Life Events Inventory. Thus, using age as a covariate would keep age constant between the two ethnicities. Means and standard deviations are presented in Table 13. Utilizing a 2 (Ethnicity) x 2 (Gender) ANCOVA with age as the covariate and Stressful Life Events Inventory scores as the dependent variable found no significant effects. Further, these results suggest that age shares a relationship with stressful life experiences, and because Native Americans were older, they consequently endorsed more stressful life experiences.

<table>
<thead>
<tr>
<th>Scaled Score</th>
<th>Caucasian</th>
<th>Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>n=8</td>
<td>n=50</td>
<td>n=10</td>
</tr>
<tr>
<td><strong>Stressful Life Events</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>5.44</td>
<td>7.66</td>
</tr>
<tr>
<td>SD</td>
<td>(2.92)</td>
<td>(6.64)</td>
</tr>
</tbody>
</table>

In regards to hypothesis 4, NPBI-R classification was run with the SCL-90R. The means and standard deviations for each measure are presented in Table 14. Using the subscales and the composite measures of the SCL-90-R as the dependent variable, a series of one-way (Classification) analyses of variance (ANOVA) were run on each subscale. There were no significant effects observed for any of the subscales or global indices of the SCL-90-R.
Table 14: SCL-90R Measure as a function of NPBI-R Classification

<table>
<thead>
<tr>
<th>Symptom Dimensions/Indices</th>
<th>Traditional</th>
<th>Assimilated</th>
<th>Marginal</th>
<th>Bicultural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=14</td>
<td>n=52</td>
<td>n=19</td>
<td>n=4</td>
</tr>
<tr>
<td>Somatization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.00</td>
<td>50.29</td>
<td>50.47</td>
<td>51.00</td>
</tr>
<tr>
<td>SD</td>
<td>(11.90)</td>
<td>(9.00)</td>
<td>(12.20)</td>
<td>(12.11)</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>54.07</td>
<td>57.10</td>
<td>53.47</td>
<td>54.75</td>
</tr>
<tr>
<td>SD</td>
<td>(11.20)</td>
<td>(8.91)</td>
<td>(9.68)</td>
<td>(12.31)</td>
</tr>
<tr>
<td>Interpersonal Sensitivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>56.71</td>
<td>59.61</td>
<td>53.21</td>
<td>62.00</td>
</tr>
<tr>
<td>SD</td>
<td>(11.17)</td>
<td>(10.63)</td>
<td>(9.89)</td>
<td>(6.10)</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.14</td>
<td>55.67</td>
<td>49.68</td>
<td>58.25</td>
</tr>
<tr>
<td>SD</td>
<td>(11.23)</td>
<td>(9.14)</td>
<td>(11.67)</td>
<td>(11.21)</td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>49.07</td>
<td>50.27</td>
<td>48.79</td>
<td>50.75</td>
</tr>
<tr>
<td>SD</td>
<td>(10.19)</td>
<td>(10.48)</td>
<td>(11.53)</td>
<td>(5.85)</td>
</tr>
<tr>
<td>Hostility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.79</td>
<td>54.21</td>
<td>52.53</td>
<td>55.75</td>
</tr>
<tr>
<td>SD</td>
<td>(11.00)</td>
<td>(8.18)</td>
<td>(9.70)</td>
<td>(6.18)</td>
</tr>
<tr>
<td>Phobic Anxiety</td>
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<td>Mean</td>
<td>54.00</td>
<td>50.00</td>
<td>50.37</td>
<td>47.75</td>
</tr>
<tr>
<td>SD</td>
<td>(9.00)</td>
<td>(7.36)</td>
<td>(8.80)</td>
<td>(7.50)</td>
</tr>
<tr>
<td>Paranoid Ideation</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>52.07</td>
<td>51.27</td>
<td>49.32</td>
<td>52.00</td>
</tr>
<tr>
<td>SD</td>
<td>(8.32)</td>
<td>(8.03)</td>
<td>(10.05)</td>
<td>(3.85)</td>
</tr>
<tr>
<td>Psychoticism</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.36</td>
<td>52.77</td>
<td>51.84</td>
<td>52.50</td>
</tr>
<tr>
<td>SD</td>
<td>(8.20)</td>
<td>(9.44)</td>
<td>(11.32)</td>
<td>(6.56)</td>
</tr>
<tr>
<td>GSI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>52.64</td>
<td>55.08</td>
<td>51.84</td>
<td>56.25</td>
</tr>
<tr>
<td>SD</td>
<td>(12.59)</td>
<td>(8.94)</td>
<td>(11.32)</td>
<td>(10.18)</td>
</tr>
<tr>
<td>PST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.71</td>
<td>54.65</td>
<td>50.58</td>
<td>56.00</td>
</tr>
<tr>
<td>SD</td>
<td>(13.08)</td>
<td>(8.32)</td>
<td>(11.56)</td>
<td>(10.98)</td>
</tr>
<tr>
<td>PSDI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>48.43</td>
<td>53.23</td>
<td>52.42</td>
<td>53.75</td>
</tr>
<tr>
<td>SD</td>
<td>(16.46)</td>
<td>(8.29)</td>
<td>(9.10)</td>
<td>(5.32)</td>
</tr>
</tbody>
</table>
NPBI-R classification was run with the SASSI-III. The means and standard deviations for each measure are presented in Table 15. Using the subscales and the composite measures of the SCL-90-R as the dependent variable, a series of one-way (NPBI-R Classification) analyses of variance (ANOVAs) were run on each subscale. There were no significant effects observed for any of the subscales of the SASSI-III.

**Table 15: SASSI-III Subscale T-Scores as a function of NPBI-R Classification**

<table>
<thead>
<tr>
<th>T-Score</th>
<th>Traditional</th>
<th>Assimilated</th>
<th>Marginal</th>
<th>Bicultural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=14</td>
<td>n=53</td>
<td>n=20</td>
<td>n=4</td>
</tr>
<tr>
<td><strong>FVA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>49.38</td>
<td>52.50</td>
<td>50.78</td>
<td>56.00</td>
</tr>
<tr>
<td>SD</td>
<td>5.98</td>
<td>8.30</td>
<td>9.32</td>
<td>18.02</td>
</tr>
<tr>
<td><strong>FVOD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>46.85</td>
<td>46.70</td>
<td>49.67</td>
<td>46.50</td>
</tr>
<tr>
<td>SD</td>
<td>3.21</td>
<td>4.19</td>
<td>10.08</td>
<td>1.73</td>
</tr>
<tr>
<td><strong>SYM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>53.14</td>
<td>52.83</td>
<td>53.60</td>
<td>55.50</td>
</tr>
<tr>
<td>SD</td>
<td>13.12</td>
<td>9.46</td>
<td>10.91</td>
<td>13.18</td>
</tr>
<tr>
<td><strong>OAT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>50.71</td>
<td>47.30</td>
<td>48.00</td>
<td>53.50</td>
</tr>
<tr>
<td>SD</td>
<td>8.80</td>
<td>7.20</td>
<td>11.77</td>
<td>5.20</td>
</tr>
<tr>
<td><strong>SAT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>48.50</td>
<td>46.32</td>
<td>50.60</td>
<td>52.50</td>
</tr>
<tr>
<td>SD</td>
<td>12.02</td>
<td>9.62</td>
<td>8.08</td>
<td>11.00</td>
</tr>
<tr>
<td><strong>DEF</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>50.21</td>
<td>51.08</td>
<td>49.55</td>
<td>49.50</td>
</tr>
<tr>
<td>SD</td>
<td>6.30</td>
<td>9.18</td>
<td>8.40</td>
<td>5.20</td>
</tr>
<tr>
<td><strong>SAM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>51.50</td>
<td>49.55</td>
<td>49.25</td>
<td>58.25</td>
</tr>
<tr>
<td>SD</td>
<td>11.20</td>
<td>9.38</td>
<td>11.08</td>
<td>5.38</td>
</tr>
<tr>
<td><strong>FAM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>53.64</td>
<td>51.55</td>
<td>52.75</td>
<td>49.50</td>
</tr>
<tr>
<td>SD</td>
<td>11.95</td>
<td>8.79</td>
<td>10.05</td>
<td>6.76</td>
</tr>
<tr>
<td><strong>COR</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Mean</td>
<td>51.29</td>
<td>48.57</td>
<td>49.90</td>
<td>57.75</td>
</tr>
<tr>
<td>SD</td>
<td>9.01</td>
<td>9.29</td>
<td>10.81</td>
<td>14.55</td>
</tr>
</tbody>
</table>
Analysis of the CD-RISC was performed with a one-way (NPBI-R Classification) ANOVA with raw scores on the resilience questionnaire as the dependent variable. The instrument was scored according to standardized procedures and raw scores were used in the analysis. Means and standard deviations can be viewed in Table 16. Analysis of the CD-RISC revealed no effects of classification.

Table 16: Resilience (CD-RISC) as a function of NPBI-R Classification

<table>
<thead>
<tr>
<th>Raw Scores</th>
<th>Traditional</th>
<th>Assimilated</th>
<th>Marginal</th>
<th>Bicultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=14</td>
<td>n=53</td>
<td>n=20</td>
<td>n=4</td>
<td></td>
</tr>
<tr>
<td><strong>CD-RISC</strong> Mean</td>
<td>80.14</td>
<td>73.43</td>
<td>77.97</td>
<td>78.00</td>
</tr>
<tr>
<td>SD</td>
<td>(11.43)</td>
<td>(13.44)</td>
<td>(10.46)</td>
<td>(12.73)</td>
</tr>
</tbody>
</table>

Analysis of the Stressful Life Events Questionnaire was performed with a series of one-way (NPBI-R Classification) ANOVA with scaled scores on the Stressful Life Events Questionnaire as the dependent variable. Means and standard deviation can are displayed table 17. The instrument was scored with the sum of the raw scores of the inventory being divided by 10.3. With 103 questions, and scores from 0-7 on each question, division of raw scores by 10.3 produced a final continuous scaled score from 0-70. No significant effects were found for the Stressful Life Events Questionnaire.

Table 17: Stressful Life Events Questionnaire as a function of NPBI-R Classification

<table>
<thead>
<tr>
<th>Scaled Scores</th>
<th>Traditional</th>
<th>Assimilated</th>
<th>Marginal</th>
<th>Bicultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=14</td>
<td>n=51</td>
<td>n=20</td>
<td>n=4</td>
<td></td>
</tr>
<tr>
<td><strong>Stressful Life Events</strong> Mean</td>
<td>12.33</td>
<td>7.36</td>
<td>9.33</td>
<td>12.16</td>
</tr>
<tr>
<td>SD</td>
<td>(10.51)</td>
<td>(6.38)</td>
<td>(10.46)</td>
<td>(12.73)</td>
</tr>
</tbody>
</table>
Further analysis utilizing Grade Point Average (GPA) at the University of North Dakota was done with a one-way (NPBI-R Classification) ANOVA with GPA as the dependent variable. A significant main effect was found, $F(3,90) = 5.47, p<.01$. Subsequent comparisons revealed that a significant difference in GPA between traditional and assimilated NPBI-R classifications, as well as marginal and assimilated NPBI-R classifications. Specifically, there was a mean difference between traditional and assimilated of -0.65 grade points. Moreover, there was a mean difference between marginal and assimilated of -0.72 grade points. Means and standard deviations are displayed in table 18.

<table>
<thead>
<tr>
<th>Table 18: GPA as a function of NPBI-R Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Point Average</td>
</tr>
<tr>
<td>GPA</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

Further analysis utilizing Credits completed at an institution of higher education was done with a one-way (NPBI-R Classification) ANOVA with Credits completed as the dependent variable. A significant main effect was found, $F(3,88) = 4.359, p<.01$ for NPBI-R classification. Subsequent comparisons revealed a significant difference in Credits completed between traditional and assimilated NPBI-R classifications. The mean difference between traditional and assimilated classifications was 35.97 credits. Means and standard deviations are displayed in table 19.
Further analysis utilizing CESD raw scores was done with a one-way ANOVA with CESD raw scores as the dependent variable. Means and standard deviations are displayed in table 20. No significant effects were found.

<table>
<thead>
<tr>
<th>Table 20: CESD raw scores as a function of NPBI-R Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw scores</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>n=14</td>
</tr>
<tr>
<td><strong>CESD</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>

Analysis utilizing TEDS raw scores was done with a one-way ANOVA with TEDS raw scores as the dependent variable. Means and standard deviations are displayed in table 21. No significant effects were found.

<table>
<thead>
<tr>
<th>Table 21: TEDS raw scores as a function of NPBI-R Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw scores</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>n=14</td>
</tr>
<tr>
<td><strong>TEDS</strong></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
</tbody>
</table>
A series of simultaneous multiple regression analyses were conducted with ethnicity, resilience, and gender as the predictor variables, as well as an interaction of ethnicity and resilience. The interaction was formed as the product of the Ethnicity and Resilience variables. Ethnicity and gender were entered as dichotomous variables. A simultaneous multiple regressions examine the significance of each predictor after all others have been entered into the equation. The interactions were tested after the effects of ethnicity, sex and resilience were entered into the equation. The results of these analyses are presented in Tables 22 to Tables 48. For each analyses the regression coefficient, Beta weight, t-value, and semi-partial correlation squared are presented. The regression coefficient indicates how much the dependent variable changes for each unit change in the predictor variable. The Beta weight represents the amount of change in the dependent variable in standard deviation units, for each standard deviation change in the predictor variable. The t-value addresses whether the percent of variance uniquely accounted for by that predictor is significantly greater than zero. Finally, squaring the semi-partial correlation indicates the percent of variance uniquely accounted for by that predictor variable.

The SCL-90R global indices and related subscales are presented in Table 22-33. The analyses of the subscales of Somatization, Hostility, and Psychoticism revealed no significant main effects (Tables 22-24).
### Table 22. Multiple regression analysis of SCL-90R (Somatization)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Somatization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-1.169</td>
</tr>
<tr>
<td>Resilience</td>
<td>-0.029</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.166</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-0.168</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

### Table 23. Multiple regression analysis of SCL-90R (Hostility)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Hostility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.006</td>
</tr>
<tr>
<td>Resilience</td>
<td>-0.121</td>
</tr>
<tr>
<td>Gender</td>
<td>0.947</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-0.141</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001
Table 24. Multiple regression analysis of SCL-90R (Psychoticism)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Psychoticism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-1.662</td>
</tr>
<tr>
<td>Resilience</td>
<td>-0.181</td>
</tr>
<tr>
<td>Gender</td>
<td>1.749</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-0.304</td>
</tr>
</tbody>
</table>

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001

The Obsessive-Compulsive subscale revealed a significant main effect of resilience. The significant main effect indicates that as resilience increases, Obsessive-Compulsive symptoms decrease (see Table 25).

Table 25. Multiple regression analysis of SCL-90R (Obsessive-Compulsive)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Obsessive-Compulsive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-.005</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.217</td>
</tr>
<tr>
<td>Gender</td>
<td>-2.454</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.333</td>
</tr>
</tbody>
</table>

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001
The Interpersonal Sensitivity subscale revealed a significant main effect of resilience. The significant main effect indicates that as resilience increases, interpersonal sensitivity symptoms decrease (see Table 26).

**Table 26.** Multiple regression analysis of SCL-90R (Interpersonal Sensitivity)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Interpersonal Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.011</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.263</td>
</tr>
<tr>
<td>Gender</td>
<td>-.1513</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.367</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

The Depression and Anxiety subscales also revealed a significant main effect of resilience. A main effect of resilience indicates that the Depression and Anxiety subscale scores shared a negative relationship with resilience, decreasing in magnitude as resilience scores increased (see Tables 27 & 28).

**Table 27.** Multiple regression analysis of SCL-90R (Depression)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.588</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.369</td>
</tr>
<tr>
<td>Gender</td>
<td>-.466</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.323</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001
The Phobic Anxiety subscale revealed a significant main effect of resilience, which, indicated that as resilience increased the scores on the Phobic Anxiety subscale decreased. Phobic anxiety also revealed a significant main effect of Ethnicity, indicating that Native Americans reported more Phobic Anxiety than Caucasians (see Table 29). The Phobic Anxiety scale also revealed a significant interaction of ethnicity and resilience. In order to understand the nature of the interaction we conducted separate multiple regressions for Native Americans and Caucasians using gender and resilience to predict phobic anxiety separately (see bottom of Table 29). For Caucasians in the participant pool, resilience significantly predicted phobic anxiety. In contrast, resilience did not predict phobic anxiety in the Native American participants. Therefore, increases in resilience led to a decrease in phobic anxiety in Caucasians, however, no relationship was found between resilience and phobic anxiety for Native Americans (see bottom of Table 29).
Table 29. Multiple regression analysis of SCL-90R (Phobic Anxiety)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-3.70</td>
<td>-.219</td>
<td>-2.06*</td>
<td>.045</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.139</td>
<td>-.220</td>
<td>-2.112*</td>
<td>.047</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.553</td>
<td>-.079</td>
<td>-.749</td>
<td>.0059</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.331</td>
<td>-.152</td>
<td>-2.232*</td>
<td>.051</td>
</tr>
</tbody>
</table>

**Interaction:**

- Caucasian: -.223, -.411, -3.380***
- Native American: .109, .134, .683

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001

The Paranoid Ideation subscale revealed a main effect of resilience, which, indicated that Paranoid ideation decreases as resilience scores increase (see Table 30).

Table 30. Multiple regression analysis of SCL-90R (Paranoid Ideation)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-1.854</td>
<td>-.104</td>
<td>-.967</td>
<td>.01</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.181</td>
<td>-.272</td>
<td>-2.583*</td>
<td>.072</td>
</tr>
<tr>
<td>Gender</td>
<td>1.522</td>
<td>.073</td>
<td>.686</td>
<td>.005</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.143</td>
<td>-.623</td>
<td>-.882</td>
<td>.0085</td>
</tr>
</tbody>
</table>

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001
The global indices of the SCL-90R also revealed main effects of resilience. The main effect revealed by the Global Distress Index, Positive Symptom Total, and Positive Symptom Distress Index indicated that as resilience increases the level or depth of psychological distress, symptom intensity, and sum of symptoms endorsed decreases (see Tables 31-33).

**Table 31.** Multiple regression analysis of SCL-90R (Global Severity Index)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>Part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Severity Index</td>
<td>Ethnicity</td>
<td>-.616</td>
<td>-.029</td>
<td>-.275</td>
<td>.00078</td>
</tr>
<tr>
<td></td>
<td>Resilience</td>
<td>-.272</td>
<td>-.341</td>
<td>-3.319***</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-.448</td>
<td>-.058</td>
<td>-.559</td>
<td>.0032</td>
</tr>
<tr>
<td></td>
<td>Eth x Resilience</td>
<td>-.348</td>
<td>-1.266</td>
<td>-1.86</td>
<td>.035</td>
</tr>
</tbody>
</table>

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001

**Table 32.** Multiple regression analysis of SCL-90R (Positive Symptom Total)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Symptom Total</td>
<td>Ethnicity</td>
<td>-.474</td>
<td>-.022</td>
<td>-.212</td>
<td>.00048</td>
</tr>
<tr>
<td></td>
<td>Resilience</td>
<td>-.263</td>
<td>-.332</td>
<td>-3.208**</td>
<td>.11</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-.384</td>
<td>-.016</td>
<td>-.149</td>
<td>.00023</td>
</tr>
<tr>
<td></td>
<td>Eth x Resilience</td>
<td>-.125</td>
<td>-.459</td>
<td>-.660</td>
<td>.0046</td>
</tr>
</tbody>
</table>

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001

The Positive Symptom Distress Index scale also revealed a significant interaction of ethnicity and resilience. In order to understand the nature of the interaction we
conducted separate multiple regressions for Native Americans and Caucasians using gender and resilience to predict positive symptom distress separately (see bottom of Table 33). For Caucasians in the participant pool, resilience significantly predicted positive symptom distress. In contrast, resilience did not predict positive symptom distress in the Native American participants. Therefore, increases in resilience led to a decrease in the Positive Symptom Distress Index in Caucasians, however, no relationship was found between resilience and symptom distress for Native Americans.

**Table 33.** Multiple regression analysis of SCL-90R (Positive Symptom Distress Index)

<table>
<thead>
<tr>
<th>SCL90-R</th>
<th>Positive Symptom Distress Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.879</td>
</tr>
<tr>
<td>Resilience</td>
<td>-1.539</td>
</tr>
<tr>
<td>Gender</td>
<td>.034</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.034</td>
</tr>
</tbody>
</table>

In the analyses of the SASSI-III subscales, no significant effects were observed on the subscales of Symptoms of Substance Misuse, Obvious Attributes, Supplemental Addiction Measures, Family, the Face-Valid Alcohol subscale, and the Face-Valid Other Drugs subscales (see Tables 34-39).
Table 34. Multiple regression analysis of SASSI-III (Symptoms of Substance Misuse)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-4.126</td>
<td>-.189</td>
<td>-1.746</td>
<td>.033</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.078</td>
<td>-.095</td>
<td>.376</td>
<td>.0086</td>
</tr>
<tr>
<td>Gender</td>
<td>3.078</td>
<td>.121</td>
<td>1.131</td>
<td>.014</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.236</td>
<td>.841</td>
<td>1.178</td>
<td>.015</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

Table 35. Multiple regression analysis of SASSI-III (Obvious Attributes)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-2.990</td>
<td>-.166</td>
<td>-1.518</td>
<td>.026</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.065</td>
<td>-.095</td>
<td>-.886</td>
<td>.0088</td>
</tr>
<tr>
<td>Gender</td>
<td>-.144</td>
<td>-.007</td>
<td>-.063</td>
<td>.00005</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.106</td>
<td>.456</td>
<td>.631</td>
<td>.0045</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001
Table 36. Multiple regression analysis of SASSI-III (Supplemental Addiction Measure)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-2.068</td>
<td>-.099</td>
<td>-.896</td>
<td>.0092</td>
</tr>
<tr>
<td>Resilience</td>
<td>.016</td>
<td>.021</td>
<td>.191</td>
<td>.0004</td>
</tr>
<tr>
<td>Gender</td>
<td>1.351</td>
<td>.055</td>
<td>.508</td>
<td>.0029</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.298</td>
<td>1.106</td>
<td>1.531</td>
<td>.026</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

Table 37. Multiple regression analysis of SASSI-III (Family)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>.819</td>
<td>.041</td>
<td>.383</td>
<td>.0016</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.064</td>
<td>-.086</td>
<td>-.809</td>
<td>.0072</td>
</tr>
<tr>
<td>Gender</td>
<td>-4.761</td>
<td>-.206</td>
<td>-1.931</td>
<td>.04</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.324</td>
<td>1.271</td>
<td>1.804</td>
<td>.035</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001
Table 38. Multiple regression analysis of SASSI-III (Face-Valid Alcohol)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-1.383</td>
<td>-.074</td>
<td>-.679</td>
<td>.0053</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.110</td>
<td>-.159</td>
<td>-1.464</td>
<td>.025</td>
</tr>
<tr>
<td>Gender</td>
<td>4.419</td>
<td>.197</td>
<td>1.823</td>
<td>.038</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.188</td>
<td>.784</td>
<td>1.060</td>
<td>.013</td>
</tr>
</tbody>
</table>

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .001$

Table 39. Multiple regression analysis of SASSI-III (Face-Valid Other Drugs)

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-.487</td>
<td>-.040</td>
<td>-.354</td>
<td>.0015</td>
</tr>
<tr>
<td>Resilience</td>
<td>.010</td>
<td>.021</td>
<td>.189</td>
<td>.00044</td>
</tr>
<tr>
<td>Gender</td>
<td>1.720</td>
<td>.116</td>
<td>1.051</td>
<td>.013</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.126</td>
<td>.797</td>
<td>1.054</td>
<td>.013</td>
</tr>
</tbody>
</table>

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .001$

The analyses of the Subtle Attributes and the Defensiveness subscales both revealed significant main effects of resilience (see Tables 40 & 41). These effects indicated that increases in resilience are associated with increases in scores on the Subtle Attributes and Defensiveness subscales of the SASSI-III. A positive relationship between the Subtle Attributes scale and resilience indicates that as resilience increases so does a personal style like that of substance dependent people. Moreover, defensiveness indicates
that there is an enduring character trait of defensiveness, or a temporary reaction to a current situation.

**Table 40.** Multiple regression analysis of SASSI-III (Subtle Attributes)

<table>
<thead>
<tr>
<th>SASSI-III Subtle Attributes</th>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-1.779</td>
<td>-0.086</td>
<td>-0.814</td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>0.200</td>
<td>0.257</td>
<td>2.471*</td>
<td>0.064</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1.747</td>
<td>0.073</td>
<td>0.694</td>
<td>0.005</td>
<td></td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>0.129</td>
<td>0.485</td>
<td>0.689</td>
<td>0.005</td>
<td></td>
</tr>
</tbody>
</table>

* = Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

**Table 41.** Multiple regression analysis of SASSI-III (Defensiveness)

<table>
<thead>
<tr>
<th>SASSI-III Defensiveness</th>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>3.41</td>
<td>0.193</td>
<td>1.871</td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>Resilience</td>
<td>0.224</td>
<td>0.336</td>
<td>3.32***</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-2.294</td>
<td>-0.112</td>
<td>-1.093</td>
<td>0.012</td>
<td></td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>0.149</td>
<td>0.654</td>
<td>0.959</td>
<td>0.0092</td>
<td></td>
</tr>
</tbody>
</table>

* = Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

The Correctional subscale revealed a significant main effect of Ethnicity, indicating that Native Americans endorsed profiles that resembled people with legal difficulties, more so than did the Caucasian participant profiles (see Table 42).
Table 42. Multiple regression analysis of SASSI-III (Correctional)

<table>
<thead>
<tr>
<th>SASSI-III Correctional</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
<td>β</td>
<td>t</td>
<td>part r²</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-4.400</td>
<td>-0.212</td>
<td>-1.967*</td>
<td>0.042</td>
</tr>
<tr>
<td>Resilience</td>
<td>-0.101</td>
<td>-0.129</td>
<td>-1.220</td>
<td>0.016</td>
</tr>
<tr>
<td>Gender</td>
<td>1.279</td>
<td>0.053</td>
<td>0.496</td>
<td>0.0027</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>0.323</td>
<td>1.209</td>
<td>1.715</td>
<td>0.031</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

Next, the analysis of GPA and credits completed revealed significant main effects of ethnicity. The relationship between GPA and Ethnicity indicates that Caucasians reported a higher GPA than the Native American participants (see table 43).

Table 43. Multiple regression analysis of GPA

<table>
<thead>
<tr>
<th>GPA</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>b</td>
<td>β</td>
<td>t</td>
<td>part r²</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.820</td>
<td>0.460</td>
<td>4.683***</td>
<td>0.20</td>
</tr>
<tr>
<td>Resilience</td>
<td>-0.003</td>
<td>-0.045</td>
<td>-0.459</td>
<td>0.0019</td>
</tr>
<tr>
<td>Gender</td>
<td>0.000</td>
<td>0.000</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>0.021</td>
<td>0.922</td>
<td>1.397</td>
<td>0.018</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

The relationship found between Credits completed and Ethnicity revealed that Native Americans have completed more credits at an institute of higher education than Caucasian participants (see table 44).
The analysis of the Stressful Life Events Inventory revealed a significant main effect of Ethnicity, which revealed that Caucasians reported less stressful life events than Native Americans (see Table 45).

### Table 44. Multiple regression analysis of Credits completed

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-22.250</td>
<td>-0.277</td>
<td>-2.629**</td>
<td>0.072</td>
</tr>
<tr>
<td>Resilience</td>
<td>0.275</td>
<td>0.091</td>
<td>0.875</td>
<td>0.0079</td>
</tr>
<tr>
<td>Gender</td>
<td>-7.638</td>
<td>-0.081</td>
<td>-0.775</td>
<td>0.0062</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>0.695</td>
<td>0.665</td>
<td>0.934</td>
<td>0.009</td>
</tr>
</tbody>
</table>

*= Significance at p≤ 0.05, **=Significance at p≤ 0.01, ***=Significance at p≤ 0.001

Analysis of the CESD also revealed a significant main effect of resilience, indicating that as resilience increases as scores on the CESD decrease (see Table 46).

### Table 45. Multiple regression analysis of Stressful Life Events Questionnaire

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-4.371</td>
<td>-0.244</td>
<td>-2.234*</td>
<td>0.054</td>
</tr>
<tr>
<td>Resilience</td>
<td>0.045</td>
<td>0.067</td>
<td>0.631</td>
<td>0.0043</td>
</tr>
<tr>
<td>Gender</td>
<td>2.924</td>
<td>0.138</td>
<td>1.287</td>
<td>0.018</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>0.157</td>
<td>0.681</td>
<td>0.958</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*= Significance at p≤ 0.05, **=Significance at p≤ 0.01, ***=Significance at p≤ 0.001
Table 46. Multiple regression analysis of CESD

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-1.759</td>
<td>-.132</td>
<td>-1.255</td>
<td>.016</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.144</td>
<td>-.287</td>
<td>-2.770**</td>
<td>.080</td>
</tr>
<tr>
<td>Gender</td>
<td>.751</td>
<td>.048</td>
<td>.462</td>
<td>.0022</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>.052</td>
<td>.304</td>
<td>.438</td>
<td>.002</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

Analyses of the TEDS revealed a significant main effect of resilience, indicating that as resilience increases as scores on the TEDS decrease (see Table 47).

Table 47. Multiple regression analysis of TEDS

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>-.306</td>
<td>-.055</td>
<td>-.527</td>
<td>.0028</td>
</tr>
<tr>
<td>Resilience</td>
<td>-.074</td>
<td>-.356</td>
<td>-3.466***</td>
<td>.12</td>
</tr>
<tr>
<td>Gender</td>
<td>.668</td>
<td>.103</td>
<td>1.005</td>
<td>.010</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.057</td>
<td>-.800</td>
<td>-1.183</td>
<td>.014</td>
</tr>
</tbody>
</table>

*= Significance at p≤.05, **=Significance at p≤.01, ***=Significance at p≤.001

Analysis of the QOLI percentile scores revealed a significant main effect of ethnicity, indicating that Caucasians endorsed a higher perceived quality of life than that of Native Americans. A significant main effect of Resilience was also found; indicating that as resilience increases so does that of QOLI scores (see Table 48).
<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>β</th>
<th>t</th>
<th>part r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>13.640</td>
<td>.208</td>
<td>2.400*</td>
<td>.04</td>
</tr>
<tr>
<td>Resilience</td>
<td>1.530</td>
<td>.618</td>
<td>7.275***</td>
<td>.37</td>
</tr>
<tr>
<td>Gender</td>
<td>1.786</td>
<td>.023</td>
<td>.273</td>
<td>.00053</td>
</tr>
<tr>
<td>Eth x Resilience</td>
<td>-.425</td>
<td>-.504</td>
<td>-.878</td>
<td>.0055</td>
</tr>
</tbody>
</table>

*= Significance at p<.05, **=Significance at p<.01, ***=Significance at p<.001
CHAPTER IV
DISCUSSION

The results of the present study indicate minimal differences between Caucasians and Native Americans on many measures of psychopathology. Further, resilience did not moderate the level of psychopathology in Native Americans and Caucasians, with the exception of select subscales from the SCL-90R, SASSI-III, CESD, QOLI, and TEDS. One reason for this may be that Native American college students may be more adaptive or functional because of being in college. Previous studies have confirmed such accounts; for example, Masten (1999), found that ethnic minority status has no effect on competence or resilience when resources were controlled. Furthermore, results from Connor (2006) found that CD-RISC scores tend to increase with treatment of a psychological disorder, namely PTSD. Thus, resilience, as measured by the CD-RISC has been found to reflect level of psychopathology within diagnosed individuals, and scores vary with respect to current functioning. Again, previous findings support the results from the present study, in that, findings did not support the perceived moderating effect of resilience on psychopathology; however, this could have been because all of the students involved are resilient or competent with respect to their particular achievements (admittance into college).

Next, results of the present study support previous findings in the research literature on disorder prevalence in Native Americans as compared to Caucasians as
Native Americans were found to be similar in psychological functioning. Masten (1999) found that resilient individuals report more negative affect than their competent peers. However, findings from the present study indicate that Native Americans who, on average, reported more risk as well as higher scores on the resilience measure were similar in psychological functioning to their Caucasian counterparts. Furthermore, Whitbeck, Hoyt, Johnson, et al. (2006), found that Native Americans had similar disorder prevalence, and often lower than that of Caucasians from a national sample, with respect to Major Depressive Episodes and Generalized Anxiety Disorder prevalence.

Furthermore, Beals et al. (2005) found a difference between Native American men and women with respect to substance use disorder prevalence; however, findings from the current study did not support such a difference. Furthermore, Whitesell, et al. (2007), also found differences among men and women Northern Plains tribal members relative to substance dependence and substance use. Both of the aforementioned findings regarding substance use were not supported in the present study.

Furthermore, the present study supports findings from previously held research in the area of resilience. Demographically, Native Americans were found to be significantly older than the Caucasian sample collected at the university. The age disparity between that of Native American and Caucasian participants in the study is often a result of cultural differences, in that; Native Americans retain strong collectivistic cultural values, and, often the culture of university life begets individuality, rewarding such behavior with excellence and positive reinforcement. Whereas, Native American beliefs and well-being are strongly rooted in holistic values, whereby, familial, spiritual, emotional, and physical aspects of life are of equal importance. When all four of the aforementioned facets of life
are in balance, this is believed to be the basic tenet of a "good life". Thus, despite the importance of education and its relation to later life achievement and success, a higher education often lags in importance behind the good of the family and community after high school.

U.S. Census Bureau data found that a Native American sample had a poverty rate that was shockingly higher than the general population, at 26.6% as compared to 13.3% (U.S. Census Bureau, 2007). Being that some studies have found that the reservation communities sampled have had as high as a 54% poverty rate at the time of the research, the poverty statistics on Native American reservations are often related to very desolate and disparate conditions within the communities that do not offer many jobs (Whitesell, et al. 2007). In corroboration with past studies the present study found Native Americans’ self-reported socioeconomic status to be significantly lower that that of the Caucasian sample. Thus, The Native American sample, whom are from predominantly Northern Plains reservations, share similar demographic characteristics of past studies that utilize Native American samples from Northern Plains Native American reservations. The entire sample of participants sampled were asked about their income growing up or, specifically, what their parents’ income was as they were raised. Consequently, it is no surprise that the attainment of a higher education is imperative for Native Americans, for themselves, for their families, and for the sustainability of reservation communities.

Moreover, GPA in Native Americans was also lower than that of the Caucasian sample. Interestingly, however, Native Americans completed significantly more credits than the Caucasian sample, albeit, the Native American sample was also significantly older than the Native American sample. Despite higher scores on the Stressful Life
Events Inventory Native Americans endorsed higher scores of resilience. Indicating that, despite endorsement of more risk factors, the Native American sample also endorsed more protective factors as well. It should also be mentioned that the items on the resilience measure (CD-RISC) represent individual protective factors that, historically, have been found to be representative of those commonly endorsed by individuals, and also correlated with resilience. Hence, Native Americans’ endorsement of significantly higher resilience scores is indicative of the identification of the importance and utility of certain protective factors in their lives.

Furthermore, Native Americans did not endorse a significantly different psychological profile than the Caucasian sample, according to the instruments given. Findings from the present study were similar to Whitbeck, Hoyt, Johnson, et al. (2006), in that, Prevalence rates for Major Depressive Episode (MDE) and Generalized Anxiety Disorder (GAD) in the Native American sample were similar to prevalence rates of MDE and GAD from that of a national sample. Further, the results of the present study were similar to that of past studies in the resilience literature by showing a negative relationship between resilience and affect as measured by the SCL-90R. According to Masten (1999), resilient individuals endorsed lower affect than their competent peers. Indicating that risk factors do indeed take a toll, however, resilient individuals are able to persevere despite distress conceivably stemming from negative life experiences, and, in the present study, endorsed very similar psychological profiles as those whom experienced less risk.

Firstly, the first hypothesis was found to be unsupported as higher resilience was found to be unrelated to GPA. Native Americans reported a higher score on the resilience
assessment (CD-RISC) overall, whereas, the Caucasian sample endorsed higher GPA with the lower mean resilience scores. However, one measurement of academic success that was taken was credits completed at the university level. Native Americans endorsed a significantly higher number of credits completed at the university level than the Caucasian sample, while also endorsing a higher resilience score. Native Americans were found to be significantly older than the Caucasian participants, but, nonetheless, completed a fair amount more credits.

The Native American sample did not endorse a mean SCL-90R score on subtests or global indices that is significantly different from that of the Caucasian sample. This indicates that the above hypothesis was supported, in that; higher resilience scores did share a negative relationship with scores on the psychopathology measures.

Interestingly, the results of the present study corroborated findings and theoretical bases in the area of resilience. Native American and Caucasian participants displayed an adequate ability to function adaptively in society through display of successive completions of salient developmental tasks (i.e. achieving admission at the university level). Successful resolution of salient developmental tasks, According to Masten (2001), is necessary, as well as demonstrable risk, to consider a person resilient.

Next, the second hypothesis was supported by evidence of higher stressful life event scores, correlated with lower GPA. However, there were no differences in psychological functioning between Native American and Caucasian samples despite differences in score on stressful life events inventory. Native Americans neared statistically significant difference on the stressful life events inventory; however, when age was used as a covariate there were no differences. Thus, higher stress in Native
Americans could be a result of the age disparity between Caucasian and Native American participants.

In a previous study by Whitbeck, Hoyt, Johnson, et al. (2006), Northern Plains Native Americans were found to have similar rates of depression (MDE) as their Northern Midwest Native American counterparts, which, were also found to be similar to the General population in the form of a National Comorbidity Sample (NCS). In the present study the Native American and Caucasian samples did not differ with respect to rates of depression and anxiety as measured by the SCL-90R subscales. There was also found to be no significant differences in the mean scores from the Tri-Ethnic Depression Scale (TEDS), or the Center for Epidemiological Studies-Depression Scale (CESD), both of which have been used in previous studies with Native American populations in the assessment of symptoms of depression (Thrane, et al. 2004). However, a multiple regression analysis that was completed in the present study confirmed relationships between the CESD and TEDS with resilience. Specifically, as resilience increased, scores on the CESD and TEDS decreased. Finding such relationships between the CESD and TEDS measures provides further supporting evidence of construct validity and convergent validity between these measures and others used in the study (i.e., SCL-90R). Furthermore, Beals et al. (2005), also found that prevalence of depressive and anxiety disorders were found to be at comparable levels in Southwest and Northern Plains tribes, which, ultimately indicates that for these tribal two regions the prevalence of such disorder symptomology is similar.

Interestingly, our third hypothesis was supported also. Native Americans endorsed higher scores on the stressful life inventory and also displayed higher scores on
the resilience assessment. Despite endorsement of higher levels of stressful life experiences among the Northern Plains Native American sample their psychological disorder symptom endorsements were similar to that of the Caucasian sample. All the while the Native American sample attained a significantly higher number of credits completed, which, is a measure of educational resilience inherent in this study. But, more importantly, being enrolled at a university is quite extraordinary for most Native Americans, if taken from the perspective of the many socio-cultural issues endemic to reservation lands. Further, it was found that Bicultural and Traditional cultural identifications, as measured by the NPBI-R, endorsed higher mean scores on the Stressful Life Events Questionnaire than other mean scores of those that identified as assimilated and marginal. Thus, with respect to present functioning (i.e., psychological assessment profiles are not significantly different from those of the Caucasian sample), the Native American sample, who are enrolled at the University of North Dakota, on average, have experienced a litany of stressful life experiences but have managed to overcome these experiences with aid from their particular set of protective factor endorsements on the CD-RISC.

Lastly, Hypothesis 4 was not supported, however, individuals who identified as being traditional had higher scores on the resilience assessment than those who identified as assimilated. Moreover, those that identified as marginal (below the median in both European and American Indian cultural scales) also displayed higher mean scores on the resilience assessment than did those who identified as being assimilated. Ultimately, however, the analyses of NPBI-R classification showed no significant differences with
respect to psychological profiles between that of marginal, traditional, bicultural, and assimilated participant samples.

Results of the present study support conclusions from previous studies in the resilience literature, in that, resilience is a phenomenon that operates instinctually, given that basic human adaptation systems are adequate and in good working order (Masten, 2001). Participants in the present study displayed an adequate level of intelligence, albeit, to the extent we can assess what amount or degree of intelligence it takes to enroll in college and accumulate at least one semester of credit. Thus, participants in the present study possessed, to some extent, one of the two most important protective factors in determining a resilient individual, intelligence (Masten, 1999). Native Americans were also found to differ in mean resilience scores over that of the Caucasian sample, indicating that the Native American sample identified and associated a collective effort in determining their present state of being. In particular, a higher mean score on the resilience assessment can be interpreted as an attribution that those protective factors endorsed had helped in some uncertain way and contributed to their present state. Despite findings of Native Americans having a lower overall GPA than Caucasians, the SCL-90R mean scores were not significantly different, which, is consistent with previous findings of the similarity of psychological profiles between Northern Plains Native Americans and the general population. Further, Masten (1999) found that, in general, those who were reported as being resilient were found to have generally positive well-being.

Findings from the present study corroborate previous evidence of the effect of age and time on experienced stressors, in that, stressful life events have a cumulative effect, and people are less able to cope in an efficient manner as more and more negative life
events are experienced (Whitesell, et al. 2007; Waller, 2001). Therefore, efforts on interventions must begin early in childhood due to the effects of distal and cumulative effects of adversity, and before peak periods of symptom onset in order to reduce the risk of Native American children’s exposure to stressful and traumatic events (Whitesell et al. 2007). The present study also found that ethnicity was positively related, and nearly statistically significant, with higher stress scores. However, when age was entered as a covariate, the relationship and the nearly significant effect of ethnicity on stress deteriorated. Which provides further evidence that age and previous amounts of stressful experiences begets added amounts of stressful life experiences, which were acknowledged as “risk chains” in previous research (Waller, 2001).

The present study provides a vast amount of information on the construct of resilience, and, in particular, resilience within the Northern Plains Native Americans. Despite attempts to provide a sound research study in the area of resilience in hopes of adequately capturing the intricacies of Northern Plains Native American culture, there are characteristics of the research design that limit the external validity. First, the Native American sample consisted of only 33 University students, which was composed of individuals from a multitude of Northern Plains Native American tribes. However, all tribes represented by the sample are in the Midwest United States, which comprises those tribes described as Northern Plains tribes (i.e., North Dakota, South Dakota, Nebraska, Minnesota, Montana).

Second, the measurement of GPA and credits completed was inconsistent because some students were transfer students from other universities. This problem affected the ability to judge performance through a standardized, institutional, academic grading
criteria. Next, an issue that affects the generalizability of the findings is that the students’ sample was comprised of different majors. Differing majors affects the ability to detect any real difference in the GPA of the students sampled.

Another limitation that is rather significant with respect to the literature base on resilience is the absence of any intelligence assessment in the present study. Historically, the resilience research literature base has all but established intellectual functioning as a strong correlate of competence in the achievement of developmental tasks, despite great adversity. Thus, an absence of any measure of intellectual functioning in the present study, aside from GPA, does not allow for findings on the relationship between intellectual functioning and resilience to generalize to Native American or the Caucasian samples.

Another assessment that would have been of great utility is that of a standardized socioeconomic Status (SES) index scale. Because the present study utilized a rather elementary tool of SES investigation, it was difficult to make any larger conclusions based on the single question asked about SES as the participants were growing up. As a result the researchers were forced to abandon any hypotheses that involved investigation with SES.

The lack of a cultural resilience scale is also of concern as one of the implications for the present study was to contribute to such a measure through the use of the CD-RISC resilience measure and the NPBI-R. Clauss-Ehlers (2008) maintains that adaptive coping is not only influenced by social support, but also influenced by socio-cultural support. Furthermore, “socio-cultural support is comprised of adaptive culture, with traditions and cultural legacies, economic and political histories, migration and acculturation, as well as
current contextual demands” (Clauss-Ehlers, 2009). Thus, the limitation inherent within
the design of the present study is the absence of a resilience measure that integrates
characteristics of cultural support into the assessment. However, the fact that few
interactions between ethnicity and resilience were observed suggests that the CD-RISC
may be an appropriate measure for use with Native Americans. With respect to the
limitations of the statistical analysis of the resilience measure, future research would
benefit from performing a factor analysis in order to determine factors that are believed to
be responsible for the correlations among psychopathology variables, resilience variables,
stressful life events, and achievement variables. This would be helpful in identifying
which protective factors, in the makeup of a resilience assessment, contribute to or buffer
a person from certain life events and instances of psychopathology.

Future research in the area of resilience with Native Americans is an important
endeavor. The present study merely represents a beginning to an already well-established
research area that could possibly contribute to prevention and intervention of many of the
socio-cultural issues that plague Native American communities. Thus, the first step in
future resilience research with Native American populations is to examine differences
between maladaptive, resilient, and competent peers. Preferably, future research should
utilize equal samples from separate regional tribes in order to get the most accurate
representation of risk, while ensuring cultural equality between samples. Hence, the use
one major tribal group in future research projects (i.e. Ojibwe participants, Lakota
participants, Dine (Navajo) participants, etc.,) in future research initiatives. Another
important facet of future research in the area of resilience is the use of identical measures
used to establish levels of risk and protective factors, across Native American populations.

Moreover, it is imperative to be inclusive to all racial, cultural, and sexual orientations in the research on resilience, in hopes that future research will begin to find commonalities that can be deployed internationally. To date, a measure of the impact of culture in resilience has not been validated, which, is an important step in understanding how socio-cultural factors influence an individual’s development. Past findings indicate that an understanding of cultural factors that promote resilience is crucial to our understanding of resilience as a process (Clauss-Ehlers, 2008). Once we can find such common developmental characteristics that are consistent with the process of resilience, we can implement them into transitional programs for youth, such as: detention facilities, drug rehabilitation facilities, and foster care facilities. A better understanding of cultural resilience would also allow researchers and policy directors to focus efforts on prevention and intervention techniques that would help alleviate socio-cultural disparities that exist in struggling communities, with respect to substance abuse, physical/sexual abuse, neglect, and poverty. Due to the high amount of adversity on the Native American reservations another goal of future research and policy would be to create interventions and prevention programs that foster development of personal resources related to the construct of resilience (i.e. parenting programs, youth outreach programs, extracurricular activities, non-athletic extracurricular activities) that will enable them to cope with inevitable adversity, which, is often experienced by just inhabiting such a community. Furthermore, opportunities for positive and constructive activity for youth on Native American reservations are often difficult to find, but promote many aspects of resilience.
Another important future research endeavor in the area of resilience research is to capture the critical periods in the developmental trajectory that contribute to resilience, in that, a cross-sectional study of a college-age sample, as well as high school age sample will afford a unique ability to dissect the intricacies of very important developmental tasks; high school graduation, successful entrance into college, and successful adaptation to the culture of college via college performance. I believe that such a study would inform the scientific arena with an understanding of the importance of societal reinforcement (i.e. educational progress) on individual progress. Further, a cross-sectional study will allow researchers to dissect the differences and similarities in risk factors and their related impact on a broad spectrum of adolescence.

In retrospect, research with this continent’s indigenous people, in the present time, at a well-respected University, cannot be discounted as the Native American population in its entirety was documented to be around 250,000 at the turn of the 20th century. So, it comes with great pride and honor to be able to write a thesis concerning the Indigenous peoples, whose families and communities have endured tremendous struggles throughout American history.

Lastly, resilience as a concept challenges determinism, which makes this area of research difficult to quantify, but yet so fruitful to navigate. Resilience tests linear thinking and behavior, while it embodies holistic attributes. For some reason unknown, resilience has been understood as an “ordinary phenomenon” among individuals at risk (Masten, 2001). However, without what understanding we now have, an opportunity to those who historically were never given such advances, are now afforded such a chance to defy common law, and succeed. Often above what anyone thought possible.
APPENDICES
Appendix A

Stressful Life Events Questionnaire

The following questionnaire is a representation of life events. For each life event that you have experienced, from birth to your present age, write a number in the blank, from 0-7, indicating how you felt about the event. With 0 indicating that you did not experience the event, and 1-7 expressing how strong of a stressful impact (i.e. distressing) the event had on your feelings or well-being. With 1-2 indicating that the event had a minimal stressful effect on you, 3-4 indicating that the event had a moderately stressful effect on you, 5-6 indicating that the event had a significant stressful impact on your feelings or well-being, and 7 indicating that the event had an extremely stressful effect on your feelings and well-being. Scores may indicate the impact of the event on your feelings and/or well-being at the time you experienced it or since the time you have experienced the event. For example, if an event caused you a moderate amount of stress at the time you experienced it but no longer has a stressful impact on you a 3 would be an appropriate answer. On the other hand, if an event caused you no stress or minimal stress at the time when you experienced it, but now causes you a moderate degree of stress a 3 would be an appropriate answer. Finally, if an event caused you a moderate degree of distress at the time of the event, and continues to cause you a moderate degree of stress a 3 would be an appropriate answer. If you have any questions, ask the researcher for assistance. Your responses are confidential.

1. Started school or a training program after not going to school for a long time.
2. Changed schools or training programs.
3. Graduated from school or training program.
4. Had problems in school or training program.
5. Failed school or training program.
6. Did not graduate from school or training program.
7. Started work for the first time.
8. Returned to work after not working for a long time.
9. Changed jobs for a better one.
10. Changed jobs for a worse one.
11. Had trouble with a boss.
12. Demoted at work.
13. Conditions at work got worse, other than getting demoted or having trouble with boss.
14. Got laid off from work.
15. Got fired.
16. Took on a greatly increased workload.
17. Suffered a business loss or failure.
18. Stopped working for an extended period.
20. Engagement was broken.
22. Started a love affair.
23. Relationship with significant other/spouse changed for the worse, without separation.
25. Termination of love relationship.
26. Reunited with significant other/spouse.
27. Infidelity on behalf of spouse/significant other.
28. Spouse/significant other (boyfriend or girlfriend) died
29. Friend died
30. Became pregnant.
32. Gave birth to second child or later.
33. Had an abortion.
34. Child died.
35. Adopted a child.
36. New person moved into the household.
37. Person moved out of the household.
38. Someone stayed in the household after they were expected to leave.
39. Serious family argument other than with spouse.
40. Family member other than spouse or child dies:
   ________ Mother
   ________ Father
   ________ Brother or sister
   ________ Grandparent
   ________ Other
41. Moved to a different neighborhood.
42. Lost a home through fire or other disaster.
43. You were physically assaulted.
44. You were robbed.
45. Involved in a car accident where you or someone else was injured.
46. Involved in a lawsuit.
47. Accused of something for which a person could be sent to jail.
48. You were arrested.
49. You were sentenced to jail or prison.
50. Got involved in a court case.
51. Got convicted of a crime.
52. Didn’t get out of jail when expected.
53. Foreclosure or default of mortgage or loan.
54. Went on welfare.
55. Got taken of welfare.
56. Repossession of a car, furniture, or other items bought on an installment plan.
57. Did not get an expected wage or salary increase.
58. Your pet died.
59. Had a close friend die.
60. Entered the armed services, and been deployed.
61. Witnessed combat related violence.
62. Had been hospitalized for a physical illness.
63. Ever been diagnosed or seen for a mental disorder.
64. Ever had a serious physical injury.
65. Unable to get treatment for an illness or injury.
66. Serious, life-threatening illness or accident to:
    ______ Spouse
    ______ Child
    ______ Boyfriend/Girlfriend
    ______ Close friend
    ______ Close family member
    ______ Distant family member
67. Ever been sexually assaulted or forced sexual contact (other than with marital, live-in or dating partner).
68. Pressured or forced to make contact with sexual parts of their body or your body from person other than marital or dating partner.
69. Sexually assaulted or forced to make sexual contact with marital or dating partner.
70. Physically assaulted or unwanted sexual contact (hitting, kicking, pushing, slapping, groping, fondling, rape, oral sex, anal sex, vaginal sex) by marital partner, dating, or live-in partner.
71. Physically assaulted (abuse) from father, mother, or another family member growing up.
72. Physically assaulted or unwanted physical contact by non-marital partner.
73. Experienced a natural disaster (i.e. flood, hurricane, tornado, earthquake, tsunami), which then caused you a grief, stress, or loss.
74. Grew up on a reservation for the majority of your life.
75. Parents divorced.
76. Raised by a single parent.
77. There was a good deal of conflict between your parents/guardians as you were growing up.
78. There was a good deal of conflict between a sibling and parents/guardians as you were growing up.
79. There was a good deal of conflict between your parents/guardians as you were growing up.
80. Witnessed domestic violence between your parents or siblings.
81. Parents abuse(d) (Use in excess or too often) alcohol/drugs.
82. Siblings abuse(d) (Use in access or too often) alcohol/drugs.
83. Either one of your parents convicted of a crime.
84. Mother suffers from any psychological problems.
    If so what was/is it ________________________________
85. Spent time in foster care as a child.
86. Incarcerated as a child or spend time at a detention center.
87. Hospitalized as a child.
88. Ever had poor grades in school (less than a 2.0 GPA or “C” average).
89. To your knowledge, born premature, or of low birth-weight.
90. To your knowledge, parents have any problems giving birth to you.
91. Ever been diagnosed with any psychological disorders (i.e. ADHD, Major depressive disorder, bipolar disorder, generalized anxiety disorder, Obsessive compulsive disorder).
If so what was/is it ________________________________

92. Felt like you have had a problem with socialization or “fitting in” with your peers, or another group, which you have wanted acceptance from.

93. Ever neglected (i.e. left by yourself) as a result of frequent parent/guardian absence when growing up.

94. Been repeatedly ridiculed or “put down” (emotionally abused) by a parent, family member, or romantic partner, which you shared a good amount of contact with.

95. Present when another person was killed, seriously injured, sexually or physically assaulted.

96. Raised by someone other than your parents when growing up.

97. Family suffered a major change in financial status growing up, causing a great loss of income

98. Grew up in an economically disadvantaged, poor, or “rough” neighborhood.

99. Felt discriminated against, oppressed, or otherwise felt like the object of prejudice due to race, ethnicity, gender, disability, sexual orientation, and religion.

100. Parent unemployment caused family to be “just getting by” every month, or having a hard time providing for family.

101. Could not get needed medical attention due lack of medical services due to inability to pay, lack of insurance, or family’s inability to travel to hospital.

102. Delinquent from school or “skipped” school multiple times.

103. Do not know culture, traditional religion, or “old ways” which ancestors practiced.

In all, how stressful has your life been for you thus far?

1 Minimal stressful    2 Mildly stressful    3 Moderate stress    4 Very stressful    5 Extreme stress
Appendix B
Quality of Life Inventory (QOLI)

**Health** is being physically fit, not sick, and without pain or disability.

1. How important is HEALTH to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

2. How satisfied are you with your health?
   - [ ] Very Dissatisfied
   - [ ] Somewhat Dissatisfied
   - [ ] A little Dissatisfied
   - [ ] A little Satisfied
   - [ ] Somewhat Satisfies
   - [ ] Very Satisfied

**Self-Esteem** means liking and respecting yourself in light of your strengths and weaknesses, successes and failures, and ability to handle problems.

3. How important is self-esteem to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

4. How satisfied are you with your self-esteem?
   - [ ] Very Dissatisfied
   - [ ] Somewhat Dissatisfied
   - [ ] A little Dissatisfied
   - [ ] A little Satisfied
   - [ ] Somewhat Satisfies
   - [ ] Very Satisfied

**Goals-and-Values** are your beliefs about what matters most in life and how you should live, both now and in the future. This includes your goals in life, what you think is right and wrong, and the purpose or meaning of life as you see it.

5. How important are goals-and-values to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

6. How satisfied are you with your goals-and-values?
   - [ ] Very Dissatisfied
   - [ ] Somewhat Dissatisfied
   - [ ] A little Dissatisfied
   - [ ] A little Satisfied
   - [ ] Somewhat Satisfies
   - [ ] Very Satisfied

**Money** is made up of 3 things. It is the money you earn, the things you own (like a car or furniture), and believing that you will have the money and things that you need in the future.

7. How important is money to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

8. How satisfied are you with the money you have?
   - [ ] Very Dissatisfied
   - [ ] Somewhat Dissatisfied
   - [ ] A little Dissatisfied
   - [ ] A little Satisfied
   - [ ] Somewhat Satisfies
   - [ ] Very Satisfied

**Work** means your career or how you spend most of your time. You may work at a job, at home taking care of your family, or at school as a student. Work includes duties on the
job, the money you earn (if any), and the people you work with. (If you are unemployed, retired, or can’t work, you can still answer these questions.)

9. How important is work to your happiness?
   □ Not important       □ Important       □ Extremely important

10. How satisfied are you with your work? (If you are not working, say how satisfied you are about not working.)
    □ Very Dissatisfied  □ Somewhat dissatisfied □ A little dissatisfied
    □ A little satisfied □ Somewhat satisfied    □ Very satisfied

**Play** is what you do in your free time to relax, have fun, or improve yourself. This could include watching movies, visiting friends, or pursuing a hobby like sports or gardening.

11. How important is play to your happiness?
    □ Not important       □ Important       □ Extremely important

12. How satisfied are you with Play in your life?
    □ Very Dissatisfied  □ Somewhat dissatisfied □ A little dissatisfied
    □ A little satisfied □ Somewhat satisfied    □ Very satisfied

**Learning** means gaining new skills or information about things that interest you. Learning can come from reading books or taking classes on subjects like history, car repair, or using a computer.

13. How important is learning to your happiness?
    □ Not important       □ Important       □ Extremely important

14. How satisfied are you with your learning?
    □ Very Dissatisfied  □ Somewhat dissatisfied □ A little dissatisfied
    □ A little satisfied □ Somewhat satisfied    □ Very satisfied

**Creativity** is using your imagination to come up with new and clever ways to solve everyday problems or to pursue a hobby like painting, photography, or needlework. This can include decorating your home, playing a guitar, or finding a new way to solve a problem at work.

15. How important is creativity to your happiness?
    □ Not important       □ Important       □ Extremely important

16. How satisfied are you with your creativity?
    □ Very Dissatisfied  □ Somewhat dissatisfied □ A little dissatisfied
    □ A little satisfied □ Somewhat satisfied    □ Very satisfied

**Helping** means helping others in need or helping to make your community a better place to live. Helping can be done on your own or in a group like a church, a neighborhood association, or a political party. Helping can include doing volunteer work at a school or giving money to a good cause. Helping means helping people who are not your friends or relatives.

17. How important is helping to your happiness?
    □ Not important       □ Important       □ Extremely important
18. How satisfied are you with your helping?

- Very Dissatisfied
- Somewhat dissatisfied
- A little dissatisfied
- A little satisfied
- Somewhat satisfied
- Very satisfied

**Love** is a very close romantic relationship with another person. Love usually includes sexual feelings and feeling loved, cared for, and understood. (If you do not have a love relationship, you can still answer these questions.)

19. How important is love to your happiness?

- Not important
- Important
- Extremely important

20. How satisfied are you with love in your life?

- Very Dissatisfied
- Somewhat dissatisfied
- A little dissatisfied
- A little satisfied
- Somewhat satisfied
- Very satisfied

**Friends** are people (not relatives) you know well and care about and who have interests and opinions like yours. Friends have fun together, talk about personal problems, and help each other out. (If you have no friends, you can still answer these questions.)

21. How important are friends to your happiness?

- Not important
- Important
- Extremely important

22. How satisfied are you with your friends? (If you have no friends, say how satisfied you are about having no friends.)

- Very Dissatisfied
- Somewhat dissatisfied
- A little dissatisfied
- A little satisfied
- Somewhat satisfied
- Very satisfied

**A child** means how you get along with your child (or children). Think of how you get along as you care for, visit, or play with your child. (If you do not have children, you can still answer these questions.)

23. How important is children to your happiness? (If you have no children, say how important having a child is to your happiness.)

- Not important
- Important
- Extremely important

24. How satisfied are you with your relationships with your children? (If you have no children, say how satisfied you feel about not having children.)

- Very Dissatisfied
- Somewhat dissatisfied
- A little dissatisfied
- A little satisfied
- Somewhat satisfied
- Very satisfied

**A relative** means how you get along with your parents, grandparents, brothers, sisters, aunts, uncles, and in-laws. Think about how you get along when you are doing things together like visiting, talking on the phone, or helping each other out. (If you have no living relatives, check the "not important" box for 25 and do not answer 26.

25. How important are relatives to your happiness?

- Not important
- Important
- Extremely important

26. How satisfied are you with your relationships with relatives?

- Very Dissatisfied
- Somewhat dissatisfied
- A little dissatisfied
- A little satisfied
- Somewhat satisfied
- Very satisfied
Home is where you live. It is your house or apartment and the yard around it. Think about how nice it looks, how big it is, and your rent or house payment.

27. How important is your home to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

28. How satisfied are you with your home?
   - [ ] Very Dissatisfied
   - [ ] Somewhat dissatisfied
   - [ ] A little dissatisfied
   - [ ] A little satisfied
   - [ ] Somewhat satisfied
   - [ ] Very satisfied

Spirituality is sensitivity or attachment to religious values, or to things of the spirit as opposed to material or worldly interests. It can be looked at as the believer’s personal relationship with or “connection” with their god(s) or belief system(s).

29. How important is spirituality to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

30. How satisfied are you with your spirituality?
   - [ ] Very Dissatisfied
   - [ ] Somewhat dissatisfied
   - [ ] A little dissatisfied
   - [ ] A little satisfied
   - [ ] Somewhat satisfied
   - [ ] Very satisfied

Community is the whole city, town, or rural area where you live. Community includes how nice the area looks, the amount of crime, and how well you like the people. It also includes places to go for fun like parks, concerts, sporting events, and restaurants. You may also consider the cost of things you need to buy, the availability of jobs, the government, schools, taxes, and pollution.

31. How important is community to your happiness?
   - [ ] Not important
   - [ ] Important
   - [ ] Extremely important

32. How satisfied are you with your community?
   - [ ] Very Dissatisfied
   - [ ] Somewhat dissatisfied
   - [ ] A little dissatisfied
   - [ ] A little satisfied
   - [ ] Somewhat satisfied
   - [ ] Very satisfied
### Appendix C

#### CES-D

<table>
<thead>
<tr>
<th>Statement</th>
<th>0 Days</th>
<th>1-2 Days</th>
<th>3-4 Days</th>
<th>5-7 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was bothered by things that usually don’t bother me.</td>
<td></td>
<td></td>
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<tr>
<td>I did not feel like eating; my appetite was poor.</td>
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<tr>
<td>I felt that I could not shake the blues even with help of my friend or family.</td>
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<tr>
<td>I felt that I was just as good as other people.</td>
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<tr>
<td>I had trouble keeping my mind on what I was doing.</td>
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<tr>
<td>I felt depressed.</td>
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<tr>
<td>I felt that everything I did was an effort.</td>
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<tr>
<td>I felt hopeful about the future.</td>
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<tr>
<td>I thought my life had been a failure.</td>
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<tr>
<td>I felt fearful.</td>
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<tr>
<td>My sleep was restless.</td>
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<tr>
<td>I was happy.</td>
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<tr>
<td>I talked less than usual.</td>
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<tr>
<td>I felt lonely.</td>
<td></td>
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<tr>
<td>People were unfriendly.</td>
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<tr>
<td>I enjoyed life.</td>
<td></td>
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<tr>
<td>I had crying spells.</td>
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<tr>
<td>I felt sad.</td>
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<tr>
<td>I felt that people disliked me.</td>
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<tr>
<td>I could not get “going.”</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix D
TEDS

<table>
<thead>
<tr>
<th></th>
<th>None of the Time</th>
<th>Some of the Time</th>
<th>Most of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am unhappy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel sad</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I am lonesome</td>
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<td></td>
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<tr>
<td>I feel low</td>
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<td></td>
<td></td>
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<tr>
<td>I am depressed</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>I am lonely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel bad.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E
Northern Plains Biculturalism Inventory-Revised

NPBI-R (Northern Plains Biculturalism Inventory-Revised)

These questions ask you to describe your attitudes, feelings, and participation in Indian and White culture. Some of the questions may not apply to you. In these cases, one of the possible answers allows you to note this. Read each question. Then fill in the number above the answer that seems most accurate for you, as in the example below.

**Example:** What is your degree of comfort with paper and pencil questionnaires?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No comfort Some comfort Great comfort

In this example, the person felt moderate but not complete comfort with paper and pencil questionnaires, so filled in 4.

In the case of attitudes and feelings, your first impression is usually correct. We are interested in how much you are influenced by Indian and White culture regardless of your own ethnic background, keeping in mind that no two people have the same background.

1. What is your degree of comfort with White people?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No comfort Some comfort Great comfort

2. How much do you encourage your children to learn and practice Indian ways?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No comfort Some comfort Great comfort

3. How strongly do you identify with American Indian culture?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No desire Some desire Great desire

4. How strongly do you identify with White culture?
   1. ___ 2. ___ 3. ___ 4. ___ 5. ___
   No desire Some desire Great desire

5. How often do you think in an American Indian language?

98
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I rarely or never think in Indian language
6. How much confidence do you have in Western (doctors in hospitals) medicine?
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I do not use medical doctors
7. How much confidence do you have in traditional medicine men/women?
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I do not use the medicine man/woman
8. How much is your way of tracing ancestry Indian (cousins same as brothers and sisters, descent more through mother)?
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I trace none of my ancestry according to Indian custom
9. How often do you attend traditional Indian ceremonies (sweat lodge, Pipe Ceremonies, Sundance, vision quest)?
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I have never attended Indian religious ceremonies
10. How often do you attend Christian religious ceremonies (Christenings, Baptisms, Church services)?
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I never attend Christian religious ceremonies
11. How often do you participate in Indian dancing (Indian, Owl, Stomp, Rabbit, etc.)?
1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I never participate in Indian dances
99
To how many social organizations do you belong where a majority of the members are Indian?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I belong to no Indian organizations

How often do you attend White celebrations (White ethnic festivals, parades, barbecues)?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I never attend White celebrations

How often do you attend Indian celebrations (Pow-Wows, Wacips)?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I never attend Indian celebrations

Does anyone in your family speak an American Indian language?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
They rarely or never speak Indian

Do you speak an American Indian language?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I rarely or never speak Indian

To what extent do members of your family have traditional Indian last names (like “Kills-in-Water”)?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
None have Indian names

How often do you talk about White topics and White culture in your daily conversation?

1. ___ 2. ___ 3. ___ 4. ___ 5. ___
I never engage in topics of conversation about Whites and their culture

100
19. How often do you talk about Indian topics and Indian culture in your daily conversations?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I never engage in topics of conversation about Indians and their culture
   Sometimes engage in topics of conversation about Indians and their culture
   I engage in topics of conversation about Indians and their culture frequently

20. How White is your preference in clothing (dress according to White style and fashion)?
   1. ___  2. ___  3. ___  4. ___  5. ___
   I never dress according to White style
   I sometimes dress according to White style
   I often dress according to White style
Appendix F
Demographic Information

1. Sex: □ Male  □ Female  2. Age: _______ years
2. Ethnicity (Race): □ Caucasian □ Native American/Alaskan Native

3. Marital Status: □ Single  □ Married  □ Separated
   □ Divorced  □ Widowed  □ Other

4. Employment □ Employed, Full-Time  □ Employed, Part-Time
   □ Homemak  □ Currently Unemployed  □ Student  □ Volunteer
   □ Retired

5. Education: (Highest Level Completed):
   □ High School or GED  □ Technical School  □ Some College
   □ Associate Degree  □ Bachelor’s Degree  □ Graduate/Professional

6. Tribal Affiliation: __________________________ State: __________________________

7. Did you grow up on a Native American Indian reservation for most of your life?
   □ Yes  □ No

8. What was your household Income growing up (estimate)?
   □ <$8,000/year  □ $12,000-20,000/yr  □ $30,000-$40,000/yr  □ $50,000-
   75,000/yr  □ $8,000-12,000/yr  □ $20,000-30,000/yr  □ $40,000-50,000/yr
   □ >$75,000/year

9. Did your parent(s) or guardian(s) have a job when you were growing up?
   □ Yes  □ No
   If yes, what was their job? ______________________________________________________

10. Have you lived with (> 1 year) different parent or guardian(s) other than your
    biological parent (e.g. mother or father)? Or have you switched homes (>1 year) to live
    someone other than your primary caretaker during your life?
    □ Yes  □ No
    If yes, whom did you live with? ___________________________________________________

11. Did somebody else raise you, or help raise you, other than your mother or father?
    If yes, who was it? _____________________________________________________________

12. Do you participate in the Native American Church?  □ Yes  □ No
If yes, how often?

13. Do you participate in other traditional Native American practices and ceremonies?

☐ Yes  ☐ No

Do you practice any religion?

☐ Yes  ☐ No

HEALTH INFORMATION

14. Please indicate whether you suffer from any of the following chronic diseases or illnesses (Check all that apply).

☐ Allergy  ☐ Alcohol Abuse  ☐ Anxiety  ☐ Arthritis  ☐ Asthma
☐ Cancer  ☐ Depression  ☐ Diabetes  ☐ Drug Abuse  ☐ Epilepsy
☐ Gout  ☐ Heart Attack  ☐ Hypertension  ☐ Glaucoma  ☐ Kidney
☐ Disease  ☐ Migraine  ☐ PTSD  ☐ Schizophrenia  ☐ Stroke
☐ Tuberculosis

When were you diagnosed with the disease or illness? ________________________________

15. Do you suffer from any other chronic conditions or illnesses? ☐ NO  ☐ YES

If yes, what? ___________________________________________ How long? ______________________

16. Do you regularly take any prescription or over-the-counter medications?

☐ No  ☐ Yes  If yes, what? ___________________________________________

17. A. On an average weekday, how many hours do you watch TV?

☐ I do not watch TV in an average weekday.  ☐ 1 hour/day  ☐ 2 hours/day  ☐ 3 hours/day  ☐ 4 hours/day  ☐ 5 or more hours/day

B. On an average day, how many hours do you play video games?

☐ I do not play video games in an average weekday.  ☐ 1 hour/day  ☐ 2 hours/day  ☐ 3 hours/day  ☐ 4 hours/day  ☐ 5 or more hours/day

18. Please answer the following questions on your use of substances.

A. During the past 30 days, how many days did you smoke cigarettes?

☐ 0 days  ☐ 1 or 2 days  ☐ 3 to 5 days  ☐ 6 to 9 days
☐ 10 to 19 days  ☐ 20 to 29 days  ☐ all 30 days

B. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

☐ I did not smoke cigarettes during the past 30 days
☐ Less than 1 cigarette per day.  ☐ 2 to 5 cigarettes per day
☐ 6 to 10 cigarettes per day  ☐ 11 to 20 cigarettes per day
More than 20 cigarettes per day

C. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip, such as Redman, Levi Garrett, Beachnut, Skoal, Skoal Bandits, or Copenhagen?

☐ 0 days  ☐ 1 or 2 days  ☐ 3 to 5 days  ☐ 6 to 9 days
☐ 10 to 19 days  ☐ 20 to 29 days  ☐ all 30 days

D. During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?

☐ 0 days  ☐ 1 or 2 days  ☐ 3 to 5 days  ☐ 6 to 9 days
☐ 10 to 19 days  ☐ 20 to 29 days  ☐ all 30 days

E. During the past 30 days, on how many days did you use tobacco for spiritual purposes?

☐ 0 days  ☐ 1 or 2 days  ☐ 3 to 5 days  ☐ 6 to 9 days
☐ 10 to 19 days  ☐ 20 to 29 days  ☐ all 30 days

F. During the past 30 days, on how many days did you have at least one drink of alcohol?

☐ 0 days  ☐ 1 or 2 days  ☐ 3 to 5 days  ☐ 6 to 9 days
☐ 10 to 19 days  ☐ 20 to 29 days  ☐ all 30 days

G. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

☐ 0 days  ☐ 1 or 2 days  ☐ 3 to 5 days  ☐ 6 to 9 days
☐ 10 to 19 days  ☐ 20 to 29 days  ☐ all 30 days

H. During the past 30 days, how many times did you use peyote?

☐ 0 times  ☐ 1 or 2 times  ☐ 3 to 5 times  ☐ 6 to 9 times
☐ 10 to 19 times  ☐ 20 to 39 times  ☐ 40 or more times

I. During the past 30 days, how many times did you use peyote for spiritual purposes?

☐ 0 times  ☐ 1 or 2 times  ☐ 3 to 5 times  ☐ 6 to 9 times
☐ 10 to 19 times  ☐ 20 to 39 times  ☐ 40 or more times

J. ☐ 10 to 19 times  ☐ 20 to 39 times  ☐ 40 or more times

K. During the past 30 days, how many times did you use marijuana?

☐ 0 times  ☐ 1 or 2 times  ☐ 3 to 5 times  ☐ 6 to 9 times
☐ 10 to 19 times  ☐ 20 to 39 times  ☐ 40 or more times

L. During your life, how many times did you use any form of cocaine, including powder, crack, or freebase?

☐ 0 times  ☐ 1 or 2 times  ☐ 3 to 5 times  ☐ 6 to 9 times
☐ 10 to 19 times  ☐ 20 to 39 times  ☐ 40 or more times
M. During your life, how many times have you used heroin (also called smack, junk, or China White)?
☐ 0 times ☐ 1 or 2 times ☐ 3 to 5 times ☐ 6 to 9 times ☐ 10 to 19 times ☐ 20 to 39 times ☐ 40 or more times

N. During your life, how many times have you used methamphetamines (also called speed, crystal, crank, ice, or meth)?
☐ 0 times ☐ 1 or 2 times ☐ 3 to 5 times ☐ 6 to 9 times ☐ 10 to 19 times ☐ 20 to 39 times ☐ 40 or more times

O. During your life, how many times have you used ecstasy (also called MDMA)?
☐ 0 times ☐ 1 or 2 times ☐ 3 to 5 times ☐ 6 to 9 times ☐ 10 to 19 times ☐ 20 to 39 times ☐ 40 or more times

P. During your life, how many times have you taken steroid pills or shots without a doctor’s prescription?
☐ 0 times ☐ 1 or 2 times ☐ 3 to 5 times ☐ 6 to 9 times ☐ 10 to 19 times ☐ 20 to 39 times ☐ 40 or more times

Q. During your life, how many times have you used a needle to inject any illegal drug into your body?
☐ 0 times ☐ 1 time ☐ 2 to 5 times ☐ 6 or more times
Appendix G.
Connor-Davidson Resilience Scale (CD-RISC)

1. I am able to adapt to change
   a. Not true at all
   b. I have close and sincere relationships
   c. Sometimes true
   d. Often true
   e. Nearly true all the time

2. I have close and secure relationships
   a. Not true at all
   b. I have close and sincere relationships
   c. Sometimes true
   d. Often true
   e. Nearly true all the time

3. I take pride in my achievements
   a. Not true at all
   b. I have close and sincere relationships
   c. Sometimes true
   d. Often true
   e. Nearly true all the time

4. I work to attain my goals
   a. Not true at all
   b. I have close and sincere relationships
   c. Sometimes true
   d. Often true
   e. Nearly true all the time

5. I feel in control of my life
   a. Not true at all
   b. I have close and sincere relationships
   c. Sometimes true
   d. Often true
   e. Nearly true all the time

6. I have a strong sense of purpose
   a. Not true at all
   b. I have close and sincere relationships
   c. Sometimes true
   d. Often true
   e. Nearly true all the time

7. I see the humorous side of things
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

8. Things happen for a reason
   a. Not true at all
   b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

9. I have to act on a hunch
   a. Not true at all
   b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

10. I can handle unpleasant feelings
    a. Not true at all
    b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

11. Sometimes fate or god can help
    a. Not true at all
    b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

12. I can deal with whatever comes my way
    a. Not true at all
    b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

13. Past success gives me confidence for new challenges
    a. Not true at all
    b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

14. Coping with stress strengthens me
    a. Not true at all
    b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

15. I like challenges
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

16. I can make unpopular or difficult decisions
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

17. I think of myself as a strong person
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

18. When things get hopeless, I don’t give up
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

19. I give my best effort, no matter what
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

20. I can achieve my goals
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

21. I am not easily discouraged by failure
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

22. I tend to bounce back after hardship or illness
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

23. I know where to turn for help
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

24. Under pressure, I focus and think clearly
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time

25. I prefer to take the lead in problem solving
a. Not true at all
b. I have close and sincere relationships
c. Sometimes true
d. Often true
e. Nearly true all the time
Appendix H
Symptom Checklist-90 Revised (SCL-90R)

SCL-90-R
Instructions: Below is a list of problems people sometimes have. Please read each one carefully, and blacken the circle that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Blacken the circle for only one number for each problem and do not skip any item. If you change your mind, erase your first mark carefully. If you have any questions please ask them now.

<table>
<thead>
<tr>
<th>Not At All</th>
<th>A Bit</th>
<th>Little</th>
<th>Moderately</th>
<th>Quite A Bit</th>
<th>Extremely</th>
<th>HOW MUCH WERE YOU DISTRESSED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Headaches.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Nervousness or shakiness inside.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3. Repeated unpleasant thoughts that won’t leave your mind</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Dizziness.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. Loss of sexual interest or pleasure.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Feeling critical of others.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. Feeling others are to blame for most of your troubles.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Trouble remembering things.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. Feeling easily annoyed or irritated.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. Worried about sloppiness or carelessness.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11. Feeling afraid in open spaces or on the streets.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
or slowed down.

your life.

other people do not hear.

people cannot be trusted.

with the opposite sex

trapped or caught.

no reason.

you could not control.

out of your house alone.

things.

getting things done.

about things.

things.

hurt easily.

aware of your private thoughts.

understand you or are unsympathetic.

are unfriendly or dislike you.

very slowly to insure correctness

Feeling low in energy

Thoughts of ending

Hearing voices that

Trembling.

Feeling that most

Poor appetite.

Crying easily.

Feeling shy or uneasy

Feelings of being

Suddenly scared for

Temper outbursts that

Feeling afraid to go

Blaming yourself for

Pains in lower back.

Feeling blocked in

Feeling lonely.

Feeling blue.

Worrying too much

Feeling no interest in

Feeling fearful.

Your feelings being

Other people being

Feeling others do not

Feeling that people

Having to do things
39. Racing
40. Stomach
41. Others
42. Muscles
43. Watched or talked about by others
44. Asleep
45. Double-check what you do
46. Decisions
47. Travel on buses, subways, or trains
48. Breath
49. Nausea or upset
50. Feeling inferior to
51. Soreness of your
52. Feeling that you are
53. Trouble falling
54. Having to check and
55. Difficulty making
56. Feeling afraid to
57. Trouble getting your
58. Hot or cold spells.
59. Having to avoid
60. Your mind going
61. Numbness or tingling
62. A lump in your throat.
63. Feeling hopeless
64. Trouble
65. Feeling weak in parts
66. Feeling tense or
67. Heavy feelings in
68. Thoughts of dying or
69. Overeating.
70. Feeling uneasy when
71. Having thoughts that

Heart pounding or
Nausea or upset
Feeling inferior to
Soreness of your
Feeling that you are
Trouble falling
Having to check and
Difficulty making
Feeling afraid to
Trouble getting your
Hot or cold spells.
Having to avoid
Your mind going
Numbness or tingling
A lump in your throat.
Feeling hopeless
Trouble
Feeling weak in parts
Feeling tense or
Heavy feelings in
Thoughts of dying or
Overeating.
Feeling uneasy when
Having thoughts that
Having urges to beat, injure, or harm someone.

Awakening in the early morning.

Having to repeat the same actions such as touching, counting, or washing.

Sleep that is restless or disturbed.

Having urges to break or smash things.

Having ideas or beliefs that others do not share.

Feeling very self-conscious with others.

Sleep that is restless or disturbed.

Having urges to break or smash things.

Feeling uneasy in crowds, such as shopping or at a movie.

Getting into frequent arguments.

Feeling nervous when you are left alone.

Others not giving you proper credit for your achievements.

Feeling lonely even when you are with people.

Feeling do restless you couldn’t sit still.

Feeling worthless.

Feeling that something bad is going to happen to you.

Feeling that people will take advantage of you if you let them.

Feeling that people will take advantage of you if you let them.

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Feeling that people will take advantage of you if you let them.

Feeling that people will take advantage of you if you let them.

Feeling that people will take advantage of you if you let them.
85. 0 0 0 0 0 0 0 0 The idea that you should be punished for your sins.
86. 0 0 0 0 0 0 0 0 Thought and images of a frightening nature.
87. 0 0 0 0 0 0 0 0 The idea that something serious is wrong with your body.
88. 0 0 0 0 0 0 0 0 Never feeling close to another person.
89. 0 0 0 0 0 0 0 0 Feelings of guilt.
90. 0 0 0 0 0 0 0 0 The idea that something is wrong with your mind.
Appendix I
SASSI-III

For each item below, circle the number which reflects how often you have experienced the situation described during: O your entire life
O the past six months
O the six months before _______
O the six months since _______

ALCOHOL (FVA)

1. Had drinks with lunch?
   O Never   O once or twice   O Several times   O Repeatedly
2. Taken a drink or drinks to help you express your feelings or ideas?
   O Never   O once or twice   O Several times   O Repeatedly
3. Taken a drink or drinks to relieve a tired feeling or give you energy to keep going?
   O Never   O once or twice   O Several times   O Repeatedly
4. Had more to drink than you intended to?
   O Never   O once or twice   O Several times   O Repeatedly
5. Experienced physical problems after drinking (e.g. nausea, seeing/hearing problems, dizziness, etc.)?
   O Never   O once or twice   O Several times   O Repeatedly
6. C-otten into trouble on the job, in school, or at home because of drinking?
   O Never   O once or twice   O Several times   O Repeatedly
7. Become depressed after having sobered up?
   O Never   O once or twice   O Several times   O Repeatedly
8. Argued with family or friends because of your drinking?
   O Never   O once or twice   O Several times   O Repeatedly
9. Had the effects of drinking recur after not drinking for awhile (e.g. flashbacks, hallucinations, etc.)?
   O Never   O once or twice   O Several times   O Repeatedly
10. Had problems in relationships because of your drinking (e.g. loss of friends, separation, divorce, etc.)?
    O Never   O once or twice   O Several times   O Repeatedly
11. Become nervous or had the shakes after having sobered up?
    O Never   O once or twice   O Several times   O Repeatedly
12. Tried to commit suicide while drunk?
    O Never   O once or twice   O Several times   O Repeatedly
OTHER DRUGS (FVOD)

1. Taken drugs to improve your thinking and feeling?
   O Never O once or twice O Several times O Repeatedly
2. Taken drugs to help you feel better about a problem?
   O Never O once or twice O Several times O Repeatedly
3. Taken drugs to help you become more aware of your senses (e.g. sight, hearing, touch, etc.)?
   O Never O once or twice O Several times O Repeatedly
4. Taken drugs to improve your enjoyment in sex?
   O Never O once or twice O Several times O Repeatedly
5. Taken drugs to help forget that you feel helpless and unworthy?
   O Never O once or twice O Several times O Repeatedly
6. Taken drugs to forget school, work, or family pressures?
   O Never O once or twice O Several times O Repeatedly
7. Gotten into trouble with the law because of drugs?
   O Never O once or twice O Several times O Repeatedly
8. Gotten really stoned or wiped out on drugs (more than just high)?
   O Never O once or twice O Several times O Repeatedly
9. Tried to talk a doctor into giving you prescription drugs (e.g. tranquilizers, pain killers, diet pills, etc.)?
   O Never O once or twice O Several times O Repeatedly
10. Spent your spare time in drug-related activities (e.g. talking about drugs, buying, selling, taking, etc.)?
    O Never O once or twice O Several times O Repeatedly
11. Used drugs and alcohol at the same time?
    O Never O once or twice O Several times O Repeatedly
12. Continued to take a drug or drugs in order to avoid the pain of withdrawal?
    O Never O once or twice O Several times O Repeatedly
13. Felt that your drug use has kept you from getting what you want out of life?
    O Never O once or twice O Several times O Repeatedly
14. Been accepted into a treatment program because of drug use?
    O Never O once or twice O Several times O Repeatedly

If a statement tends to be true for you, fill in the column headed T
If a statement tends to be false for you, fill in the column headed F

1. T F Most people would lie to get what they want.
2. T F most people make some mistakes in their life.
3. T F I usually “go along” and do what others are doing.
4. T F I have never been in trouble with the police.
5. T F I was always well behaved in school.
6. T F My troubles are not all my fault.
7. T F I have not lived the way I should.
8. T F I can be friends with people who do many things wrong.
9. T F I do not like to sit and daydream.
<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>T/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>No one has ever criticized or punished me.</td>
<td>T</td>
</tr>
<tr>
<td>11</td>
<td>Sometimes I have a hard time sitting still.</td>
<td>T</td>
</tr>
<tr>
<td>12</td>
<td>People would be better off if they took my advice.</td>
<td>T</td>
</tr>
<tr>
<td>13</td>
<td>At times I feel worn out for no special reason.</td>
<td>T</td>
</tr>
<tr>
<td>14</td>
<td>I think I would enjoy moving to an area that I have never seen before.</td>
<td>T</td>
</tr>
<tr>
<td>15</td>
<td>It’s better not to talk about personal problems.</td>
<td>T</td>
</tr>
<tr>
<td>16</td>
<td>I have had days, weeks or months when I couldn’t get much done because I</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td>wasn’t up to it.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>I am very respectful of authority.</td>
<td>T</td>
</tr>
<tr>
<td>18</td>
<td>I like to obey the law.</td>
<td>T</td>
</tr>
<tr>
<td>19</td>
<td>I have been tempted to leave home.</td>
<td>T</td>
</tr>
<tr>
<td>20</td>
<td>I often feel that strangers look at me with disapproval</td>
<td>T</td>
</tr>
<tr>
<td>21</td>
<td>Other people would fall apart if they had to deal with what I handle.</td>
<td>T</td>
</tr>
<tr>
<td>22</td>
<td>I have avoided people I do not wish to speak to.</td>
<td>T</td>
</tr>
<tr>
<td>23</td>
<td>Some crooks are so clever that I hope they get away with they have done.</td>
<td>T</td>
</tr>
<tr>
<td>24</td>
<td>My school teachers had some problems with me.</td>
<td>T</td>
</tr>
<tr>
<td>25</td>
<td>I have never done anything dangerous just for fun.</td>
<td>T</td>
</tr>
<tr>
<td>26</td>
<td>I need to have something to do so I don’t get bored.</td>
<td>T</td>
</tr>
<tr>
<td>27</td>
<td>I have sometimes drunk too much.</td>
<td>T</td>
</tr>
<tr>
<td>28</td>
<td>Much of my life is uninteresting.</td>
<td>T</td>
</tr>
<tr>
<td>29</td>
<td>Sometimes I wish I could control myself better.</td>
<td>T</td>
</tr>
<tr>
<td>30</td>
<td>I believe that people sometimes get confused.</td>
<td>T</td>
</tr>
<tr>
<td>31</td>
<td>Sometimes I am no good for anything at all.</td>
<td>T</td>
</tr>
<tr>
<td>32</td>
<td>I break more laws than many people.</td>
<td>T</td>
</tr>
<tr>
<td>33</td>
<td>If some friends and I got into trouble, I would rather take the whole</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td>blame than tell on them.</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Crying does not help anything.</td>
<td>T</td>
</tr>
<tr>
<td>35</td>
<td>I think there is something wrong with my memory.</td>
<td>T</td>
</tr>
<tr>
<td>36</td>
<td>I have sometimes been tempted to hit people.</td>
<td>T</td>
</tr>
<tr>
<td>37</td>
<td>My most important successes are not a direct result of my effort.</td>
<td>T</td>
</tr>
<tr>
<td>38</td>
<td>I always feel sure of myself.</td>
<td>T</td>
</tr>
<tr>
<td>39</td>
<td>I have never broken a major law.</td>
<td>T</td>
</tr>
<tr>
<td>40</td>
<td>There have been times when I have done things I couldn’t remember later.</td>
<td>T</td>
</tr>
<tr>
<td>41</td>
<td>I think carefully about all my actions.</td>
<td>T</td>
</tr>
<tr>
<td>42</td>
<td>I have used alcohol or “pot” too much, or too often.</td>
<td>T</td>
</tr>
<tr>
<td>43</td>
<td>Nearly everyone enjoys being picked on and made fun of.</td>
<td>T</td>
</tr>
<tr>
<td>44</td>
<td>I know who is to blame for most of my troubles.</td>
<td>T</td>
</tr>
<tr>
<td>45</td>
<td>I frequently make lists of things to do.</td>
<td>T</td>
</tr>
<tr>
<td>46</td>
<td>I guess I know some pretty undesirable types.</td>
<td>T</td>
</tr>
<tr>
<td>47</td>
<td>Most people will laugh at a joke at times.</td>
<td>T</td>
</tr>
<tr>
<td>48</td>
<td>I have rarely been punished.</td>
<td>T</td>
</tr>
<tr>
<td>49</td>
<td>I smoke cigarettes regularly.</td>
<td>T</td>
</tr>
<tr>
<td>50</td>
<td>At times I have been so full of energy that I felt I didn’t need to sleep</td>
<td>T</td>
</tr>
<tr>
<td></td>
<td>for days at a time.</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>I have sometimes sat about when I should have been working.</td>
<td>T</td>
</tr>
<tr>
<td>52</td>
<td>I am often resentful.</td>
<td>T</td>
</tr>
</tbody>
</table>
53. T F I take all my responsibilities seriously.
54. T F I have neglected obligations to family or work because of drinking or using drugs.
55. T F I have had a drink first thing in the morning to steady my nerves or to get rid of a hangover.
56. T F While I was a teenager, I began drinking or using other drugs regularly.
57. T F My father was a heavy drinker/drug user.
58. T F When I drink or use drugs I tend to get into trouble.
59. T F My drinking or other drug use causes problems between me and my family.
60. T F I do most of my drinking and drug using away from home.
61. T F At least once a week I use some non-prescription antacid and/or diarrhea medicine.
62. T F I have never felt sad over anything.
63. T F I am rarely at loss for words.
64. T F I am usually happy.
65. T F I am a restless person.
66. T F I like doing things on the spur of the moment.
67. T F I am a binge drinker/drug user.
Appendix J
Consent Form

UNIVERSITY OF NORTH DAKOTA
CONSENT TO PARTICIPATE IN RESEARCH STUDY
Title of Study: Achievement Despite Adversity: Measuring Resilience in Northern Plains Native American College Students
Principle Investigator(s): Kyle Hill (701) 330-9462
Thomas Petros, Ph. D. (701) 777-3260

Purpose
The purpose of this study is to examine resilience in Native American and Caucasian college students. Specifically, we want to examine the relationships between past experiences and current status in college students in attendance at the University of North Dakota.

Duration of present study
Participation in this study will take approximately 1.5 hours.

Subjects
You have been selected to participate in this study because you are a Native American or Caucasian college student attending school at the University of North Dakota. During your participation in this study you will be asked to complete 9 questionnaires. Some questionnaires measure different characteristics of your mental health and well-being. Other questionnaires measure past experiences with substance use as well as past life experience in general.

Procedures
Participation in this study is confidential. Your name will only be on this form; all other forms will be coded with a number. All names and identification numbers will be stored separately in a locked cabinet that only the principal investigators have access to. You will be given a packet of questionnaires (SCL-90R, TEDS, CES-D, CD-RISC, Stressful Events questionnaire, QOLI, NPBI-R, SASSI-3, and Demographic questionnaire) to fill out, and once the questionnaires are completed you will be given compensation for your time. You will also be required, as part of your voluntary participation, to provide a copy of your unofficial transcript (with all identifying information (i.e. name, date of birth, identification number, social-security number) blacked out/deleted from unofficial transcript) for proof of credits completed and grade point average. You will be given an opportunity, upon your written consent of participation, to print your unofficial transcript in the computer lab on the second floor of
Corwin-Larimore hall. If you decide to stop before all questionnaires are complete you will be compensated based on your time of participation.

Risks
There are few potential risks in this study. You will be asked personal questions that may be uncomfortable to answer. Some questions also pertain to possible traumatic experiences that may make you uncomfortable. If for any reason you want to discontinue participation in the experiment, you are encouraged to inform the experimenter and you are free to discontinue at any time without penalty. Contact information for mental health services will be provided to you in case of any effects of participation.

Compensation/cost
You will receive $5 or 1.5 hours of research participation credit for use in a psychology class as compensation for your participation.

Confidentiality
Information gathered from the questionnaires will be coded with an identification number and your name on this form will be kept separate from the data. All materials gathered during this study will be kept in a locked file cabinet in the Indians Into Psychology (INPSYDE) office in the Northern Plains Behavioral Research building. Information will be kept for 3 years then destroyed by shredding all documentation. The study experimenters and people who audit IRB procedures will have access to the data during this 3-year period. You will not be personally identified in any reports or publications that may result from this study.

Right to Refuse or Withdraw
You may refuse or withdraw at anytime without penalty. If you decide to withdraw from this study, please tell the experimenter. If the study design is to be changed you will be informed and your consent re-obtained.

Questions
If you have any questions during or after your participation in this study feel free to ask the experimenter. If you have questions later contact Kyle Hill or Dr. Thomas Petros at the UND psychology department. If you have questions or comments on this study you can also contact the Office of Research Development and Compliance at (701) 777-4279.

You may report (anonymously, if you choose) any complaints or comments regarding the manner in which this study is being conducted to the University of North Dakota Social Behavioral Institutional Review Board at (701) 777-4279, or by addressing a letter to the IRB at UND, P.O. Box 7134, Grand Forks, ND 58202-7134.

MY SIGNATURE BELOW INDICATES THAT I HAVE DECIDED TO VOLUNTEER AS A RESEARCH SUBJECT AND THAT I HAVE READ, UNDERSTAND AND RECEIVED A COPY OF THIS CONSENT FORM.
MY SIGNATURE BELOW INDICATES THAT I (EXPERIMENTER) HAVE EXPLAINED THE PROCEDURES, RISKS AND BENEFITS OF THIS STUDY TO THE PARTICIPANT.
REFERENCES


