Examining Cultural Identification And Alcohol Use Among College Students

Lynn Martell

EXAMINING CULTURAL IDENTIFICATION AND ALCOHOL USE AMONG
COLLEGE STUDENTS

by

Lynn Ruth Martell
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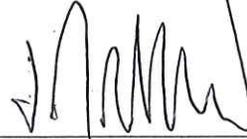
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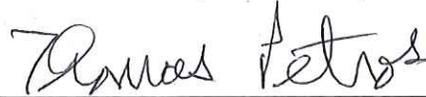
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Thomas Petros, Ph.D.

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Alan King, Ph.D.

This thesis is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.

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PERMISSION

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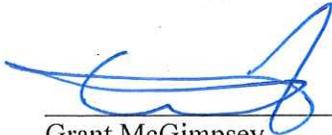
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ABSTRACT

Previous research has found American Indians (AI) to demonstrate higher levels of alcohol use than Caucasians (CA); however, recent research has found that AI may be drinking at similar or lower rates than CA. Cultural identification (i.e., degree to which an individual associate with, and represents themselves as a member of a specific cultural group) may be a factor contributing to the level of alcohol use among AI. The current study examined cultural identification and alcohol use among University of North Dakota (UND) AI (n=56) and CA (n=88) college students. Results indicated non-significant differences in alcohol use between cultural identification groups. However, results indicated significant differences in the standardized alcoholic drinks per day between cultural identification groups; with CA having a significantly higher average daily alcohol consumption than AIs who identified as Marginal, Traditional, and Assimilated. The second aim of the current study examined the association between alcohol use and age. Results indicated a significant difference in standardized alcoholic drinks per day between age groups; with 18 to 25-year-olds having higher average daily alcohol consumption then 26-year-olds and older. Furthermore, this study was the first to examine the Substance Abuse Subtle Screening Inventory-4 (SASSI-4) among AI college students. A better understanding of the relationship between cultural identification and alcohol use will enhance intervention efforts among college students and add to the literature of AI college students and alcohol use.

Keywords: Cultural identification, alcohol use

CHAPTER I

INTRODUCTION

Examining Cultural Identification and Alcohol Use among College Students

Previous research has found that college students experience higher levels of alcohol consumption and alcohol-related consequences; however, most of these findings have been restricted to the predominantly Caucasians (CA) college student sample. Thus, there is a lack of research dedicated to American Indian (AI) college student alcohol consumption and alcohol related consequences (Hagler, Pearson, Venner, & Greenfield, 2017). Previous findings on alcohol use among CA college students cannot be generalized to the AI college students due to cultural variation. Colonization and historical trauma of AI populations has contributed to cultural identification changes. It is possible that cultural identification among AI may contribute to the level of alcohol use and serve as a protective factor. There is currently a lack of research examining cultural identification and alcohol use among AI college students. Additionally, no previous studies have assessed the efficacy of the SASSI-4 among AI college students.

Alcohol Use among College Students

The consumption of alcohol among college students continues to be a significant problem and is one of the most commonly abused drugs on college campuses (Substance Abuse and Mental Health Services Administration, 2013). The prevalence rate of alcohol use among college students has been stable over the past twenty years (Johnston, O' Mallery, & Bachman, 2000). Problematic alcohol use for college students is often used as a maladaptive coping response to external stressors such as academic responsibilities or time management (Metzger, Cooper,

Ritchwood, Onyeuku, & Griffan, 2016). High levels of negative affect, which is defined as the degree to which one experiences negative emotions, is associated with more drinking problems in college students (Sukhwal & Suman, 2013; Stanger, Abaied, & Wagner, 2016). Past research suggests that approximately 58% of full-time college students ages 18-22 drink alcohol, and approximately 40% of college students engaged in binge drinking (NIAAA, 2015). Binge drinking is defined as the consumption of four or more drinks in secession for women, and five or more drinks in secession for men in about two hours (Kuo, Wechsler, Greenberg, & Lee, 2003; Champion, Lewis, & Meyers, 2015). Similarly, 12.5% of college students ages 18-22 reported at least one heavy-drinking episode (5 or more drinks in a row) in the past month (NIAAA, 2015).

An important area of research is examining the drinking behaviors among college students. Research suggests that alcohol use is higher among college students than non-attending peers; students attending larger colleges and colleges located in the Northeast or North Central United States tend to consume larger quantities of alcohol (Johnston et al., 2000; Presley, Meilman, & Leichliter, 2000). Low alcohol price, advertising, and availability were associated with higher binge drinking rates on college campus (Kuo et al., 2003). College students with early alcohol use onset and higher levels of stress tend to exhibit an increase in problem drinking compared to low-stressed college students (O'Hare & Sherrer, 2000; Stanger et al., 2016). Similarly, athletes were found to have higher alcohol use than nonathletes (Barnett, Ott, & Clark, 2014). Alcohol use is higher among college students who live in residence halls, with coed college residences showing the highest risk for alcohol use, compared with those who live at home with parents (O'Hare, 1990; Barnett et al., 2014). In addition, students attending four-year colleges reported higher alcohol consumption, binge drinking, and alcohol-related consequences

than students attending a two-year college (Velazquez et al., 2011). This may be in part due to the increased presence of fraternity/sorority organization which may promote alcohol use.

Gender, age, and ethnic differences among individuals who use alcohol is an important area of research. On average, male students tend to drink more and are highly resistant to change compared to females (American Health Association, 2012). Female student that attend a four-year college were found to have higher rates of alcohol consumption and alcohol-related consequences than female students that attend a two-year college (Velazquez et al., 2011). Additionally, Sheppard et al. (2016) found that males and those involved with Greek activities tended to consume more alcohol than did non-Greeks and females. Previous research has found that alcohol consumption peaked at age 25 and then declined after age 30, which may be due to difficulty with coping or socializing with alcohol-using peers (Vladimirov et al., 2016). Further, research suggests CA college students had highest (47%) rates of alcohol consumption, Hispanics or Latinos have intermediate (35%) rates of heavy drinking, and Black college students have the lowest (26%) rates of heavy drinking (O'Malley & Johnston, 2002). In addition, Asian college students had the lowest (25%) rates of heavy alcohol consumption (Paschall, Bersamin, & Flewelling, 2005). However, the literature is lacking for examining AI college students and alcohol use rates and needs further research.

Alcohol-Related Consequences

Heavy drinking among college students has been associated with problems such as the following: involvement with police, property damage, physical injuries, date rape, fatal car accidents, and engage in unprotected sex (Metzger et al., 2016; Kuo et al., 2003; Carmack & Lewis, 2016). Research suggests that about 1 in 4 college students report academic consequences from drinking such as missing class, doing poorly on exams, and receiving lower grades. These

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academic consequences are five times more likely to occur for college students that binge drink (NIAAA, 2015). Additionally, heavy alcohol use increases the risk for neurodegeneration and neurocognitive deficits (Zeigler et al., 2005). Sawyer et al. (2017) found that heavy alcohol use in college students may be related to impairments in prospective memory. Existing literature on alcohol related consequences provides evidence and support for the high level of alcohol use among college students.

Protective Factors

Protective factors may help to buffer against alcohol consumption rates and alcohol-related problems. Protective factors, defined as variables that protects against the occurrence of an undesirable outcome and enables occurrence of a positive outcome, can contribute to the framework of prevention or treatment (Henson, Sabo, Trujillo, & Teufel-Shone, 217). Research suggests that religious behaviors such as religious attendance, prayer, and importance of religion have been shown to be a protective factor against alcohol use among college students (Carmack & Lewis, 2016). In a previous study, college students with religious affiliations consumed alcohol significantly less in frequency and quantity than students with no religious affiliation (Patock-Peckham et al., 1998). Another adaptive strategy to buffer against alcohol-related problems is seeking social support (Stanger et al., 2016). For example, parent encouragement to remove oneself from a stressful situation and emotional peer support has been related to lower alcohol use (Kaynak et al., 2013; Bachrach & Read, 2017). In addition, college attendance was found to lower binge drinking rates among AI populations compared to AI who did not attend college; suggesting college attendance as a protective factor for AI (Greene, Eitle, & Eitle, 2014). Overall, the existing literature examining protective factors may be useful in reducing alcohol rates.

Alcohol Use among American Indians

Research examining alcohol use among AI population is lacking. Generalizing alcohol use among AI populations is difficult due to studies limited by cross-sectional designs, sample size, or to a single tribe; thus, ignoring the cultural variation among the different tribes which can result in misleading conclusions (Szlemko, Wood, &Thurman, 2006; Beauvais, 1998). It is important to note currently there is over 562 federally recognized tribes that each have its own tribal history, customs, and language (Dickerson, Brown, Johnson, Schweigman, & D'Amico, 2016). Thus, future research on AI populations and alcohol use is needed.

Risk factors for alcohol use among AI populations are poverty, family history of alcohol, and peer groups (Brown, Dickerson, & Amico, 2016). For example, AI living off the reservation compared to those living on the reservation exhibit higher rates of alcohol and substance use; but may be due to variations in economic opportunity which poses as a stressor (Stanley & Swaim, 2015). In addition, studies have found that AI have an earlier onset by age 14 of alcohol and substance use compared to other ethnic groups (Stanley & Swaim, 2015). However, much of the research has been focused on adolescent samples. Additionally, AIs who worked full-time and were married had higher rates of alcohol consumption and binge drinking; which may be due to increased disposable income or increased stressors (Greene et al., 2014). In contrast, parenthood in AI populations was found to reduce alcohol consumption on average which may be due to the cultural importance of family (Greene et al., 2014).

Previous research suggests that AI populations have higher rates of alcohol use, frequency of use, and increased fetal alcohol syndrome compared to other ethnic groups (Beauvais, 1998). However, recent studies have found that excessive drinking was higher among CA compared to AI (Kanny, Liu, Brewer, & Lu, 2013). Cunningham, Solomon, and Muramoto

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(2015) found AI and CA binge drinking rates to be similar at about 17.3% and 16.7% and heavy drinking rates similar at 8.3% and 7.5%. Thus, suggesting little difference in drinking rates between AIs and CA. In addition, AIs (59.9%) had higher rates of abstaining from alcohol in the past month compared to CAs (43.1%) who abstained from alcohol (Cunningham et al., 2015). Overall, the study's findings were contrary to the AI elevated alcohol consumption belief (Cunningham et al., 2015).

An important area of research to consider is the impact of stereotypes such as the "Drunken Indian" on AI populations; which can result in stereotype threat (e.g. being at risk for fulfilling a commonly held group based stereotype) (Blume, 2016). Stereotypes, stigma, and discrimination of AI has contributed to greater alcohol use, binge drinking, and alcohol-related consequences. For example, greater belief in the Firewater myth, the idea that AIs are more susceptible to alcohol due to biological differences; has been associated with higher alcohol use, heavy episodic drinking, and alcohol-related consequences (Gonzalez & Skewes, 2016). Stereotypes have been found to be associated with guilt for drinking, temptation to drink heavily, and positive alcohol expectancies in AI college students (Gonzalez & Skewes, 2016).

Historical Trauma

Historical trauma is defined as the intergenerational trauma through genocide, loss of culture, or forcible removal that was imposed on a group of people that share a specific identity or affiliation (Evans-Campbell, 2008). Research has found the following to have lasting intergenerational and psychological effects on AI populations: forced removal from tribal lands, placement of AI children in boarding schools, broken treaties, acculturation, and historical genocide (Evan-Campbell, 2008; Brown et al., 2016). Historical trauma has resulted in limited opportunities to participate in traditional practices, lack of cultural awareness, and loss of

language among AI populations which may have contributed to substance abuse issues

(Dickerson et al., 2016). Additionally, previous research has found a strong correlation between

alcohol use among AI populations and historical trauma experienced by AI (Brown, Dickerson,

& Amico, 2016). Ehlers et al. (2013) found over 50% of AIs thought about historical losses at

least occasionally; which resulted in emotional distress. Prior research has found AIs who scored

higher on historic loss associated symptoms (e.g. anger, depression, loss of sleep associated with

historical trauma) were more likely to have used alcohol in the past month (Wiechelt,

Gryczynski, Johnson, & Caldwell, 2012).

Cultural Identification among AIs

Cultural identification or orientation is defined as the degree to which an individual

associates with, and represents themselves as a member of a specific cultural group (Oetting &

Beauvais, 1991). Cultural identification is influenced by an individual's interactions within the

environment and individual experiences. Ethnic minorities with a distinct culture that resides in

an environment that is strongly influenced by the majority culture; may experience conflicting

beliefs, attitudes, values, and differences in traditions (Oetting & Beauvais, 1991). Acculturation,

defined as process of cultural and psychological change as result of adapting to a new culture;

can be bilinear, two-directional, or multidomain (Berry, 2005). Acculturation can result from

colonization, military invasion, or migration (Berry, 2005). Colonization of AI populations has

influenced cultural changes and disruption within AI culture (Pichette, Garrett, Kosciulek, &

Rosenthal, 1999).

Overall, there have been multiple models for assessing cultural identification. Research

has shown the Orthogonal Theory of Biculturalism to be more flexible, more cultural outcomes,

and the possibility for a low level of identification with any culture (Oetting, Swaim, &

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Chiarella, 1998). The Orthogonal Theory of Biculturalism states that one can identify as unicultural, bicultural, anomic, or multicultural; without the loss of original cultural identity (Rust, 2007; Oetting & Beauvais, 1991). In addition, the Orthogonal Theory of Biculturalism suggests those who achieve above average degrees of cultural competence (defined as the degree to which someone not only associates with, but demonstrates cultural knowledge in their everyday social behavior) in two or more distinct cultures are classified as bicultural (Oetting & Beauvais, 1991). Previous research has found bicultural individuals to be more culturally flexible; which may buffer against maladjustment (Benet-Martínez et al., 2006). In contrast, research has found individuals with low cultural identification to have social and behavioral problems (Oetting & Beauvais, 1991).

Another measure of cultural identification is the Northern Plains Biculturalism Inventory (NPBI) which assesses cultural competence along two distinct cultural dimensions: American Indian Cultural Identification (AICI) and European Cultural Identification (EACI). It was designed to measure four levels of cultural orientation including: traditional, assimilated, bicultural, and marginalized (Kagan & Gray, 2011). However, a disadvantage of the NPBI was the lack of standardized standard error, means, and standard deviations which inhibited the ability to make comparisons findings across multiple studies (Allen & French, 1994). The American Indian Biculturalism Inventory-Northern Plains Version (AIBI-NP) was developed based on the NPBI, but was derived to have more psychometrically sound scoring procedure; which increases the utility of the inventory (Further discussion of the AIBI-NP is in the Methods section).

Cultural Identification and Alcohol Use among AIs

Additionally, culture identification has been found to be a source of personal/social strength, positive personal adjustment, and well-being (Oetting & Beauvais, 1991). Prior research suggests that AI populations have different cultural worldviews compared to other ethnic groups; which may influence alcohol use (Brown et al., 2016). In addition, alcohol use is dependent on the culture's relative acceptance of alcohol (Oetting & Beauvais, 1991). AI populations tend to be collective societies; thus family, group, or community support may be more important in reducing alcohol use than in individualistic societies (Matamonasa-Bennett, 2017).

Studies have found higher levels of alcohol use among individuals who closely identify with non-AI values; whereas, individuals who identify equally with both AI and non-AI values had the lowest rates of alcohol use (May, 1982). However, recent research has found bicultural individuals to be more likely to have high alcohol consumption (Herman-Stahl,Spencer, & Duncan, 2003). Higher identification with AI culture has been found to have an indirect effect on substance use through increased family communication and parental monitoring resulting in prevention of alcohol use (Urbaeva, Booth, & Wei, 2017). Matamonasa-Bennett (2017) found, on the Great Lake reservation, reconnecting with traditional AI cultural values influenced abstinence and sobriety. AI that engage in culture events or traditional practices (e.g. powwows, beading, prayer/sage ceremonies) experience health enhancing effects which decrease alcohol use (Brown et al, 2016). Overall, the existing research done on cultural identification and alcohol use among AI is lacking and there is a need for more research in this area in order to create more intervention efforts, especially aimed at AI college students.

Current Study

The current study examined the relationship between alcohol use and cultural identity among AI and CA college students. The first aim of the study examined the association between alcohol use and cultural identity among AI and CA college students. It was hypothesized that AI college students who identify as traditional AI would have lower levels of alcohol use, those who identify as assimilated or marginal would have higher levels of alcohol use. In addition, those who identify as bicultural would have lower levels of alcohol use. It was hypothesized that CA college students would have similar alcohol levels to AI.

The second aim of the study examined the association between alcohol use and age. It was hypothesized that older students (26+ yrs) would have lower alcohol consumption, whereas, younger students (18-25 yrs) would have higher alcohol consumption levels.

Emerging adulthood is a distinct developmental period with a tendency for risky behaviors to peak such as alcohol use (Park, Mulye, Adams, Brindis, & Irwin, 2006). Interventions that target this group may be helpful in reducing alcohol use among college campuses. There is a lack of research examining alcohol interventions among AI college students. Previous research has suggested the importance of incorporating cultural identification for AI in alcohol treatment programs (Oetting & Beauvais, 1991). Overall, there is a lack of research on cultural identification and alcohol use among AI, which may be helpful in developing effective treatment strategies.

CHAPTER II

METHODS

Participants

Participants were divided into two groups: 1) UND AI students ($n=56$); 2) UND CA students ($n=88$). Non-AI and AI university students were recruited from the University of North Dakota (UND). They were eligible to participate if they were at least 18 years old and enrolled in college. College students were chosen for recruitment because this population is most likely to report alcohol consumption and alcohol is the primary substance choice for college students (O'Mallery and Johnston, 2002). In addition, the DDQ measure required the participants to have consumed alcohol in the past 6 months. UND CA students were recruited through enrollment in psychology courses utilizing the SONA systems. UND AI students were recruited at the American Indian center on UND's campus, events that specifically target AI participants, and word of mouth. Participants were compensated either with course credit/extra credit or a nominal monetary incentive.

Measures

Demographics

Participants completed an initial demographics questionnaire assessing: age, gender, college status, number of credits completed, current major, marital status, family/self-income, employment, parents, siblings, and ethnicity with which they primarily identify. Participants were also be asked if they have ever lived on the reservation and if they were ever admitted to an addiction treatment center (see Appendix A).

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Daily Drinking Questionnaire (DDQ)

Alcohol consumption among participants was measured via the DDQ, which assessed

quantity and frequency of alcohol consumption over the prior 6 months (Collins, Parks, &

Marlatt, 1985). Participants were asked to recall back on the past 6 months and indicate, for each

day of the week, how many standard drinks they consumed in their typical week (see Appendix

B). Prior research supports the validity and one-week test re-test reliability ($r = 0.93$) of the DDQ

and alcohol use (Miller et al., 1998).

Substance Abuse Subtle Screening Inventory-4 (SASSI-4)

The SASS-4 is a self-report questionnaire designed to screen individuals for high

probability of substance abuse (Lazowski & Miller, 1997). The SASSI-4 is a 1 page, 2-sided

assessment. One side contains 74 true/false questions that are not overtly related to alcohol or

drugs. These items consist of the following 8 individual scales: Prescription Drug Scale (Rx),

Symptoms (SYM), Obvious Attributes (OAT), Subtle Attributes (SAT), Defensiveness (DEF),

Supplemental Addiction Measure (SAM), Family vs. Control Subjects (FAM), and Correctional

(COR).

The second side contains 31 items with each item rated on a scale of 0 (*never*) to 3

(*repeatedly*) that specifically pertain to alcohol use (Face Valid Alcohol: FVA) and other drug

use (Face Valid Other Drugs: FVOD) (See Appendix D). Previous research supports the validity

and test re-test reliability (ranged from 0.78 to 0.99) of the SASSI-4 scales and alcohol use

(Lazowski & Geary, 2016). The SASSI-4 has high internal consistency ($\alpha = .97$) in the general

population (Lazowski & Geary, 2016).

American Indian Biculturalism Inventory-Northern Plains Version (AIBI-NP)

Cultural identification for Northern Plains (Montana, Wyoming, North and South Dakota, Minnesota) AIs was measured via the AIBI-NP (McDonald et al., 2015). The AIBI-NP was a revised version of the NPBI developed by Alan and French (1992). The AIBI-NP has two subscales: American Indian cultural identification (AICI) and European American cultural identification (EACI). It consists of four levels of cultural orientation including: traditional, assimilated, bicultural, and marginalized. Individuals who identify as traditional have a high level of AICI and low level of EACI. Those who identify as assimilated have a low level of AICI and high level of EACI. Bicultural individuals have a high level of both AICI and EACI. Marginalized individuals have a low level of both AICI and EACI. The AIBI-NP is a 26-item questionnaire on a scale 1 (*no comfort*) to 4 (*complete comfort*) (See Appendix C). Previous research supports the AIBI-NP as a measure of cultural identification among AIs (McDonald et al., 2015).

Children of Alcoholics Screening Test (CAST)

The Children of Alcoholics Screening Test is a 30-item self-report measure which identifies adults who were raised by an alcoholic mother or father (Jones, 1983). The scores range from 0 to 30 with scores in excess of 6 used as a threshold for the identification of a problem of parent drinking. Sample items include: "Did you ever wish that a parent would stop drinking?" and "Did you ever feel like hiding or emptying a parent's bottle of liquor?" (See Appendix E). Research has supported the CAST high internal consistency ($\alpha = .88$ and $\alpha = .90$) and test-retest reliability ($r = .88$) in the general population (Clair & Genest, 1992). Previously, the CAST has been used as a dimensional measure of the extent to which parental drinking has caused problems within individual family systems.

Buss-Perry Aggression Questionnaire (BPAQ)

The BPAQ is a 29-item Likert measure segregated into the following four subscales: Physical Aggression, Verbal Aggression, Trait Anger, and Trait Hostility (Buss & Perry, 1992) (See Appendix F). Previously research has shown the establishment of the BPAQ subscale reliabilities (ranging from .72 to .89) (Buss & Perry, 1992). In addition, the BPAQ scores were linked to angry and aggressive behavior (Archer & Webb, 2006; Gerevich, Bacskai, & Czobor, 2007).

Procedure

Participants were eligible to participate in the study if they identify as CA or AI, if they reported having consumed alcohol in the past 6 months, and if they attended UND. Data collection was conducted at UND. Participants had the option to take the in-person paper copy or the online version of the survey. UND participants were recruited through the UND SONA research participant pools (i.e. SONA system). The participants recruited through SONA came to the lab and completed the online survey via Qualtrics, which included: the demographic questionnaire, the DDQ, the AIBI-NP, the CAST, and the BPAQ. Participants also completed a paper questionnaire (SASSI-4) in the same session. The individuals who were not eligible to participate in the study based on the eligibility criteria were not able to complete the remainder of the study. Recruitment plans included: SONA, events that specifically target AI participants, booths on the campuses, and word of mouth. The participants were required to provide consent prior to participation. The questionnaires took approximately 30 minutes to complete. Lastly, the participants at UND were compensated for their participation in one of two ways: 1) monetary compensation or 2) credit/extra credit for SONA.

Data Analysis Plan

The SPSS statistical analytical software program was utilized for the data analysis. A One-Way Analyses of Variance (ANOVA) was conducted of the four categories of the AIBI (i.e., traditional, marginal, assimilated, and bicultural) as independent variables and alcohol use as the dependent variable. For the variables that were significant, a follow-up Tukey post-hoc test was conducted. Previous studies have shown Tukey post-hoc tests to accurately maintain alpha levels at their intended values (assuming statistical model assumptions are met) and be able to adapt to unequal sample sizes (Lane, 2010). In addition, an ANOVA was conducted to determine if there is a relationship between alcohol use and age group. Also, an ANOVA was conducted between alcohol use and adult children of alcoholics.

Power Analysis

A power analysis for an ANOVA using G-Power, with a medium effect size (0.25), alpha = .05, and power = .80, yielded a recommendation of 64 participants per group (CA and AI). Therefore, a total sample size of 128 is recommended. Due to the small population of AI college students at UND, the recommended sample size for this particular group was not obtained.

CHAPTER III

RESULTS

The current study recruited a total of N=148 participants. However, 4 either did not

primarily identify as either CA or AI and were thus removed from the sample. The final sample

included N=144 participants among the 2 groups: AI students ($n=56$) and CA students ($n=88$).

Among the total participants, 56.1% were female. Participants identified as 59.5% CA and

37.8% AI.

A series of 2 (sex) X 2 (ethnicity) analyses of variance (ANOVA) were computed on

each of the SASSI-4 subscales; with the subscales being the dependent variables and ethnicity

and sex the independent variables. An analysis on alcohol use (FVA) showed non-significant

results for the main effect of ethnicity, the main effect of sex, and the interaction of ethnicity by

sex. An analysis on drug use (FVOD) found non-significant results for the main effect of

ethnicity and the main effect of sex. Results showed a significant interaction of ethnicity by sex

in drug use $F(1, 112)= 6.94$, $p <.05$; see Table 1; with AI females ($M=49.63$, $SD=8.49$) being

higher than AI males ($M=46.33$, $SD=2.41$). Additionally, CA males ($M=52.79$, $SD=10.16$) were

found to have higher drug use than CA females ($M=48.18$, $SD= 4.71$) and AI males. An analysis

on symptoms of substance misuse (SYM) found non-significant results for the main effect of

ethnicity, main effect of sex, and the interaction of ethnicity by sex. An analysis on

characteristics commonly associated with substance misuse (OAT) found non-significant results

for the main effect of ethnicity, main effect of sex, and the interaction of ethnicity by sex. An

analysis on subtle attributes of substance misuse (SAT) found non-significant results for the main effect of ethnicity and main effect of sex. Results showed a significant interaction of ethnicity by gender on subtle attributes of substance misuse $F(1, 112) = 4.83$, $p < .05$; with AI females ($M=49.00$, $SD=11.47$) being higher than AI males ($M=44.60$, $SD=8.99$). Additionally, CA males ($M=50.76$, $SD=11.38$) were found to have higher subtle attributes of substance misuse than CA females ($M=45.89$, $SD= 10.67$). An analysis on defensiveness (DEF), supplemental addiction measures (SAM), similarity to family members of people who misuse substances (FAM), and history of legal offenses (COR) found non-significant results for the main effect of ethnicity, main effect of sex, and the interaction of ethnicity by sex. For more descriptive statistics see Table 1.

A one-way analysis of variance (ANOVA) was computed on each of the SASSI-4 subscales; with the subscales being the dependent variables and cultural identification group being the independent variable. Results indicated non-significant differences in alcohol use (FVA) between cultural identification groups $F(4, 134) = 1.00$, $p > .05$; see Table 2. Furthermore, results showed non-significant differences for the following: FVOD, SYM, OAT, SAT, DEF, SAM, FAM, and COR between cultural identification groups. For more descriptive statistics see Table 2.

A one-way analyses of variance (ANOVA) was computed on each of the BPAQ subscales; with the subscales being the dependent variables and cultural identification group being the independent variable. Results indicated non-significant differences in physical aggression, anger, hostility, verbal aggression, and total aggression between cultural identification groups (see Table 3).

Table 1. Means and Standard Deviations for SASSI-4 as a Function of Ethnicity and Gender.

Subscales	American Indians		Caucasians	
	Males (n=15)	Females (n=30)	Males (n=34)	Females (n=38)
FVA				
Mean	48.46	48.20	49.91	51.52
SD	(7.12)	(7.84)	(8.26)	(7.19)
FVOD				
Mean	46.33	49.63	52.79	48.18
SD	(2.41)	(8.49)	(10.16)	(4.71)
SYM				
Mean	56.00	56.46	57.58	55.34
SD	(10.54)	(9.53)	(11.96)	(10.39)
OAT				
Mean	54.2	52.33	50.76	50.10
SD	(8.98)	(10.29)	(11.38)	(8.53)
SAT				
Mean	44.60	49.00	50.76	45.89
SD	(8.99)	(11.47)	(9.74)	(10.67)
DEF				
Mean	45.00	47.10	45.50	46.47
SD	(9.59)	(7.61)	(8.37)	(9.60)
SAM				
Mean	52.46	53.70	52.29	51.23
SD	(7.36)	(9.43)	(9.78)	(8.44)
FAM				
Mean	47.06	48.03	44.91	46.81
SD	(6.11)	(10.67)	(9.22)	(10.14)
COR				
Mean	50.46	51.26	51.61	49.00
SD	(7.57)	(9.72)	(12.07)	(9.48)

Note. "FVA= face valid alcohol", "FVOD= face valid other drugs", "SYM=symptoms", "OAT=obvious attributes", "SAT= subtle attributes", "DEF=defensiveness", "SAM=supplementary addiction measures", "FAM= family vs. control subjects", "COR=correctional." Sex was coded as "male=1, female=2".

Table 2. Means and Standard Deviations for SASSI-4 as a Function of Cultural Identification.

Subscales	Marginal (n=27)	Bicultural (n=3)	Traditional (n=13)	Assimilated (n=11)	Caucasian (n=85)
FVA					
Mean	47.96	44.33	49.03	48.72	50.43
SD	(6.29)	(3.51)	(9.77)	(6.78)	(7.58)
FVOD					
Mean	48.33	45.00	49.53	47.72	50.48
SD	(6.58)	(.00)	(7.85)	(7.28)	(8.76)
SYM					
Mean	58.62	59.66	52.00	52.27	56.36
SD	(9.47)	(9.50)	(7.84)	(10.66)	(11.08)
OAT					
Mean	53.85	52.66	51.15	50.09	51.01
SD	(8.56)	(14.36)	(10.05)	(9.99)	(10.05)
SAT					
Mean	46.66	37.33	49.84	49.45	48.22
SD	(9.67)	(4.50)	(12.26)	(7.91)	(10.69)
DEF					
Mean	46.11	54.66	42.92	48.72	45.42
SD	(6.97)	(2.88)	(7.47)	(8.34)	(9.61)
SAM					
Mean	53.66	50.00	53.76	51.18	52.15
SD	(8.22)	(5.56)	(9.48)	(11.00)	(9.01)
FAM					
Mean	46.62	51.00	48.00	45.63	45.71
SD	(8.27)	(4.00)	(7.94)	(13.50)	(9.82)
COR					
Mean	51.37	49.33	49.84	50.00	50.95
SD	(8.23)	(7.76)	(9.50)	(10.01)	(10.95)

Note. "FVA= face valid alcohol", "FVOD= face valid other drugs", "SYM=symptoms", "OAT=obvious attributes", "SAT= subtle attributes", "DEF=defensiveness", "SAM=supplementary addiction measures", "FAM= family vs. control subjects", "COR=correctional."

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Table 3. Means and Standard Deviations for BPAQ as a Function of Cultural Identification.

Subscales	Marginal (n=27)	Bicultural (n=3)	Traditional (n=13)	Assimilated (n=11)	Caucasians (n=85)
Physical Aggression					
Mean	17.73	22.33	20.69	16.45	17.43
SD	(5.84)	(7.09)	(6.99)	(6.91)	(6.36)
Anger					
Mean	14.19	12.00	14.23	13.81	13.42
SD	(4.27)	(5.29)	(5.00)	(5.05)	(4.47)
Hostility					
Mean	19.11	15.33	18.00	22.18	17.74
SD	(7.57)	(7.09)	(6.53)	(5.75)	(5.82)
Verbal Aggression					
Mean	13.96	14.33	12.92	13.63	12.63
SD	(4.46)	(3.21)	(2.59)	(2.57)	(3.97)
Total Aggression					
Mean	65.00	64.00	65.84	66.09	61.46
SD	(17.26)	(12.76)	(17.80)	(15.96)	(16.16)

A one-way analyses of variance (ANOVA) was computed on the DDQ; with the standardized alcoholic drinks per day being the dependent variable and cultural identification group being the independent variable. Results indicated significant differences in daily alcohol consumption between groups $F(4, 127) = 6.86$, $p < .05$ (See Table 4). Post hoc analyses using Tukey post hoc criterion for significance indicated that CA had a significantly higher average daily alcohol consumption (M=1.26, SD= 1.14) then those who identified as Marginal (M=0.49, SD=0.49), Traditional (M=0.37, SD= 0.41), and Assimilated (M=0.27, SD= 0.29).

A one-way analyses of variance (ANOVA) was computed on the CAST; using the probability of being an adult child of an alcoholic as the dependent variable and cultural

identification group as the independent variable. Results indicated significant difference in adult

children of alcoholics (ACOA) between groups $F(4,135) = 6.68$, $p < .05$ (See Table 4). A post

hoc analyses using Tukey indicated that those who identified as Marginal reported significantly

higher probability of being an adult child of an alcoholic ($M=10.96$, $SD= 8.64$) then those who

identified as Assimilated ($M=1.54$, $SD= 2.84$) and CA ($M=3.45$, $SD= 6.75$).

Table 4. Means and Standard Deviations for the Adult Children of Alcoholics and Alcohol Use
as a Function of Cultural Identification.

	Marginal (*n=27*)	Bicultural (*n=3*)	Traditional (*n=13*)	Assimilated (*n=11*)	Caucasians (*n=85*)
Adult Children of Alcoholics					
Mean	10.96	7.00	7.15	1.54	3.45
SD	(8.64)	(12.12)	(7.59)	(2.84)	(6.75)
Alcohol Use					
Mean	0.49	0.19	0.37	0.27	1.26
SD	(0.49)	(0.32)	(0.41)	(0.29)	(1.14)

Note. "Alcohol use= average amount of standard drinks consumed daily."

A series of 2 (age group) X 2 (ethnicity) analyses of variance (ANOVA) was computed

on the DDQ; using the standardized alcoholic drinks per day as the dependent variable and age

group and ethnicity as the independent variable. Results showed a significant main effect of age

group in daily alcohol consumption $F(1, 132) = 8.85$, $p <.05$; with 18 to 25-year-olds having a

higher average daily alcohol consumption ($M=1.39$, $SD= 1.15$) then 26-year-olds and older

($M=0.46$, $SD=0.59$). Results indicated a significant main effect of ethnicity in daily alcohol

consumption ($F_{(1, 132)} = 7.95$, $p < .05$); with CA having a higher average daily alcohol

consumption then those who identified as AI (see Table 5).

Table 5. Means and Standard Deviations for Alcohol Use and SASSI-4 as a Function of Age Group and Ethnicity.

	American Indians		Caucasians	
	18-25 (*n=37*)	26+ (*n=19*)	18-25 (*n=75*)	26+ (*n=11*)
Alcohol Use				
Mean	0.49	0.27	1.39	0.46
SD	(0.48)	(0.32)	(1.15)	(0.59)
FVA				
Mean	50.02	44.84	50.60	50.09
SD	(7.74)	(3.96)	(7.24)	(9.32)
FVOD				
Mean	49.24	46.26	49.50	57.00
SD	(7.69)	(3.52)	(6.65)	(16.24)
SYM				
Mean	55.05	57.73	56.00	58.00
SD	(10.27)	(9.82)	(10.68)	(13.85)
OAT				
Mean	51.75	52.84	49.96	57.81
SD	(9.14)	(10.80)	(9.53)	(10.88)
SAT				
Mean	48.67	44.36	47.73	52.54
SD	(11.28)	(6.03)	(10.70)	(10.06)
DEF				
Mean	45.78	48.15	46.16	39.27
SD	(7.99)	(6.61)	(9.07)	(11.21)
SAM				
Mean	52.13	54.15	51.10	57.72
SD	(8.36)	(10.62)	(8.63)	(9.61)
FAM				
Mean	46.24	48.36	46.34	42.00
SD	(9.48)	(8.11)	(9.61)	(10.70)
COR				
Mean	49.67	52.36	49.50	59.63
SD	(8.66)	(8.98)	(9.85)	(14.11)

Note. "Alcohol use= average amount of standard drinks consumed daily". "FVA= face valid alcohol", "FVOD= face valid other drugs", "SYM=symptoms", "OAT=obvious attributes", "SAT= subtle attributes", "DEF=defensiveness", "SAM=supplementary addiction measures", "FAM= family vs. control subjects", "COR=correctional." Age was coded as "18-25 = 1, 26+ = 2".

A series of 2 (age group) X 2 (ethnicity) analyses of variance (ANOVA) was computed on the SAASI-4 subscales; with the subscales as the dependent variables and age group and ethnicity as the independent variables. Results showed non-significant main effect of ethnicity, main effect of age group, and interaction of age group and ethnicity for alcohol use. Results indicated non-significant main effect of age group on drug use. Results indicated a significant main effect of ethnicity in drug use (F $_{(1, 138)}$ = 10.97, p <.05; see Table 5); with CA having higher drug use then AI. Furthermore, results indicated a significant interaction of age group and ethnicity on drug use, $F(1,138)=9.95$ p <.05; with 26-year-olds and older CA having higher drug use (M=57.00, SD= 16.24) then 26-year-olds and older AI (M=46.26, SD=3.52). Results on SYM indicated non-significant main effect of age group, main effect of ethnicity, and interaction of age group and ethnicity. Results indicated a significant main effect of age group in OAT on the SASSI-4 $F(1,138)$ = 4.61, p <.05; with 26-year-olds and older having higher OAT then 18 to 25-year-olds. However, results showed non-significant main effect of ethnicity and interaction of age group and ethnicity on OAT. Results indicated non-significant main effect of age group and main effect of ethnicity on SAT. Additionally, results indicated a significant interaction of age group and ethnicity in SAT on the SASSI-4 $F(1,138)$ = 4.23, p <.05; with 26-year-olds and older CA having SAT (M=52.54, SD= 10.06) then 26-year-olds and older AI (M=44.36, SD=6.03). On DEF, results indicated non-significance for the main effect of age group. Results indicated a significant main effect of ethnicity in DEF $F(1,138)$ = 5.20, p <.05; with AI having higher DEF then CA. Furthermore, results indicated a significant interaction of age group and ethnicity on DEF $F(1, 138)$ = 6.163, p <.05; with 26-year-olds and older AI having higher DEF (M=48.15, SD= 6.61) then 26-year-olds and older Caucasians (M=39.27, SD=11.21). Results indicated a significant main effect of age group on SAM $F(1,138)$ = 5.10, p <.05; with 26-year-olds and

older having higher SAM then 18 to 25-year-olds. In addition, results indicated non-significant results for the main effect of ethnicity and interaction of age group and ethnicity on SAM. Results indicated non-significant results for the main effect of age group, main effect of ethnicity, and interaction of age group and ethnicity on FAM. Results indicated a significant main effect of age group on COR $F(1,138) = 9.25$, $p <.05$; with 26-year-olds and older having higher COR then 18 to 25-year-olds. Finally, results indicated non-significant results for the main effect of ethnicity and the interaction of age group and ethnicity on COR.

A one-way analyses of variance (ANOVA) was computed on the parent's total estimated household income as the dependent variable and cultural identification group as the independent variable. Results indicated a significant difference in parent's total estimated household income $F(4,134)=6.08$, $p < .05$ between cultural identification groups (see Table 6). A post hoc analyses using Tukey indicated that those who identified as Marginal reported significantly lower parent's total estimated household income ($M=2.52$, $SD= 1.08$) then those who identified as CA ($M=3.46$, $SD= 0.76$).

Table 6. Means and Standard Deviations for Parent's Total Estimated Household Income as a Function of Cultural Identification.

Subscales	Marginal (*n*=27)	Bicultural (*n*=3)	Traditional (*n*=13)	Assimilated (*n*=11)	Caucasians (*n*=85)
Parent's Total Estimate Household Income					
Mean	2.52	3.33	3.08	3.27	3.46
SD	(1.08)	(1.15)	(0.95)	(0.90)	(0.76)

CHAPTER IV

DISCUSSION

The current study revealed non-significant differences in alcohol use between CA and AI. Early research suggested that AI had higher alcohol consumption rates and frequency of use compared to other ethnicities (Beauvais, 1998); however, this study is consistent with other recent literature suggesting AI have similar or lower alcohol use rates than CA (Cunningham, 2015). Instead, AIs may be experiencing alcohol use differently depending on how they culturally identify.

The first aim of the study examined the association between alcohol use and cultural identity among AI and CA college students. The current findings demonstrated CA having a higher average daily alcohol consumption then AIs who identified as Marginal, Traditional, and Assimilated. Little research has examined alcohol use and cultural identification among AI college students. Overall, these findings are consistent with previous research that CA college students report higher alcohol consumption (Looby et al., 2017). Further, the current study found AIs who identified as Marginal had a higher probability of being an ACOA then those who identified as Assimilated and CA. No research to date has investigated these differences among AI and CA college students; thus, it remains unclear why AI's who identify as Marginal are scoring higher on ACOA compared to other cultural identification groups and CA.

Demographic differences such as parent's total estimated household income for AIs who identified as Marginal reported significantly lower parent's total estimated household income

then those who identified as CA. This may have resulted in CA having higher average daily alcohol consumption due to having more disposable income to buy alcohol with then AI who identified as Marginal. Previous research has suggested that AIs who worked full-time and were married had higher rates of alcohol consumption and binge drinking due to increased disposable income (Greene et al., 2014). Thus, an increase in disposable income for AI who identify as Marginal may influence their average alcohol consumption per day. Furthermore, the study found no differences in aggression between CA and AI.

The second aim of the study examined the association between alcohol use and age group. The current study found 18 to 25-year-olds had higher average daily alcohol consumption then 26-year-olds. Previous research has found that alcohol consumption peaked at age 25 and then declined after age 30, which may be due to difficulty with coping or socializing with alcohol-using peers (Vladimirov et al., 2016). Additionally, the current findings found 26-year-olds and older CA having higher drug use then AI in the same age group.

Several clinical implications were revealed. First, the study supports current research demonstrating AI college students are not drinking at higher rates than CA peers. This finding supports the notion to separate AI from stereotypes, such as the "drunken Indian," that suggests AI drinking at high rates. Second, cultural identification influences daily alcohol consumption rates. Thus, utilizing culturally targeted interventions to decrease students drinking may be beneficial, specifically for AI students.

Several study limitations are acknowledged. First, students who did not drink in the past 6 months could not participate in the study because the DDQ requires participants to have consumed alcohol in the recent past. The alcohol use over the last 6 months was assessed retrospectively and was subject to recall error. Additionally, if the study could have included

non-drinkers, then there may have been significant differences with alcohol use among the CA and AI.

A second limitation was a majority of AI participants reported residing in the Northern Plains geographic region of the country, so the results may not generalize to other parts of the country or other AI tribes. Additionally, G-Power recommended recruiting 64 participants in each group; however; the sample size for AI students was not obtained due to a small AI population size at UND that reported consuming alcohol in the past 6 months. The relatively small sample size of participants, particularly of AI, may have limited the power to detect significance. A larger sample may be needed to more fully examine cultural identification and alcohol use.

A third limitation was the CA student sample was solely recruited from SONA which is a research recruiting website for psychology undergraduate students, resulting in the CA college sample to be limited in recruitment on campus. In contrast, AI students were recruited at the American Indian Center, events that specifically target AI participants, and word of mouth. Additionally, CA students were offered class credit for participating in the study so their motivation for participation may be attributed to improving their grades or contributing to the class, whereas, AI students did not receive school credit and may be participating due to curiosity to how this study will contribute to AIs.

Future research should examine difference between non-college samples of CA and AI (or other ethnic minorities) in cultural identification and alcohol use among individuals that live on or near the reservations. This would allow for participants to be of similar socioeconomic status and would aid in understanding drinking pattern differences between these groups. Additionally, future research should examine differences between non-college samples of CA

and AI in alcohol use and drug use. The optimal conditions for future studies should include balanced age, gender, sample size, and education level in order to make comparisons across groups. Additionally, future studies should also measure different types of drinking behaviors such as abstainers, low, moderate, and heavy drinkers among AI and CA college students.

Previous research has demonstrated that college-aged adults experience higher levels of alcohol use. However, little research has studied the differences in alcohol use among AI and CA college students. The current study examined cultural identification and alcohol use among AI and CA college students, as well as age group and alcohol use. This study provides support for novel intervention approaches to better aid in decreasing alcohol use among college students, specifically AI college students. For example, interventions utilizing cultural aspects among AI students may influence their drinking behavior and reduce alcohol consumption.

APPENDICES

APPENDIX A

Demographic Questionnaire

1. Circle the *one* ethnicity with which you *primarily* identify:

   American Indian: if so, what tribe do you belong to? _____

   Caucasian

   Other

2. Have you consumed alcohol (i.e., beer, wine, liquor) in the past 6 months?

   YES   NO

3. Age:

   15-17   18-25   26-34   35-49   50-64   65+

4. Circle your sex:

   Male   Female

5. Circle your current year in college:

   Freshman   Sophomore   Junior   Senior   Graduate

6. How many college credits have you completed? _____

7. What is your current major? _____

8. Were you raised by your biological parents?

   YES   NO

9. Were you raised in a single parent household?

   YES   NO

10. What is your fathers job? _____

11. What is your mothers job? _____

12. Do you have any siblings?

    YES   NO

13. Circle your current marital status?

    Single

    Single Parent

    Widowed

    Separated

    Living with another

    Divorced

    Married

14. Circle your total estimated household income:

    <$20,000

    $20,000-49,999

    $50,000-74,999

    $75,000+

15. Circle your estimated parent's household income:

    <$20,000

    $20,000-49,999

    $50,000-74,999

    $75,000+

16. Circle your Employment?

    Unemployed

    Part-time

    Full-time

17. Have you ever been admitted to an addiction treatment center?

    YES   NO

     a) If YES, what did you go to treatment for?

18. Circle YES or NO if you have ever lived on an American Indian Reservation?

    YES   NO

a) If YES, which one? (If you have lived on multiple Reservations, please enter which

    reservation you spent most of your time on). _____

(DDQ)

One standard drink = 12 oz. can/bottle of beer, 4 oz. glass of wine, 1.5 oz. hard liquor.

INSTRUCTIONS FOR RECORDING DRINKING DURING A <u>TYPICAL WEEK</u>

IN THE CALENDAR BELOW, PLEASE FILL-IN YOUR DRINKING DURING A **TYPICAL WEEK** IN THE LAST **6 MONTHS**.

First, think of a *typical week* in the last *6 months*. (Where did you live? What were your regular weekly activities? Were you working or going to school? Etc.) Try to remember as accurately as you can, *how much* you typically drank in a week during that 6 months.

For each day of the week in the calendar below, fill in the **number of standard drinks typically consumed on that day** in the box. Please fill in a number for each day. If you do not typically consume any alcohol on that day, or you wish not to respond, please enter a 0.

Day of Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Number of *Drinks*							

APPENDIX C

(AIBI-NP)

These questions ask you to describe your attitudes, feelings, and participation in American Indian and non-Indian culture. Some of the questions may not seem to apply to you. In these cases, please mark the answer that you feel is the closest to your own personal feeling or attitude. In the case of attitudes and feelings, your first impression is usually correct. There are no right or wrong answers, please share your honest opinions and experiences.

Read each question. Then circle the number above the answer that seems most accurate for you, as in the example below:

How comfortable do you feel taking paper and pencil questionnaires?

1	**2**	**3**	**4**
No Comfort	**Some**	**Moderate**	**Complete Comfort**

---

1. In general, how comfortable are you around White people?
    1. ___   2. ___   3. ___   4. ___
    No   Complete
    comfort   comfort

2. How comfortable are you in encouraging your (or related) children to learn and practice American Indian ways?
    1. ___   2. ___   3. ___   4. ___
    No   Complete
    comfort   comfort

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3. How strongly do you identify with American Indian culture?

    1. ___   2. ___   3. ___   4. ___
    No   Greatly
    Identification   Identify

4. How strongly do you identify with White culture?

    1. ___   2. ___   3. ___   4. ___
    No   Greatly
    Identification   Identify

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

    1. ___   2. ___   3. ___   4. ___
    I rarely or   Very often or
    never think in an   always think in an
    Indian language   Indian language

6. How confident are you in White/Western (doctors in hospitals) medicine?

    1. ___   2. ___   3. ___   4. ___
    No confidence   Have complete confidence
    In White medical   in White
    doctors   medical doctors

7. How confident are you in traditional Native/American Indian medicine and ceremonies?

    1. ___   2. ___   3. ___   4. ___
    No confidence   Have very strong
    In Native   faith in Native
    medicine   medicine

8. How much is your way of thinking of "Family" American Indian (cousins same as brothers and sisters, aunts/uncles as parents, everyone is related)?

    1. ___   2. ___   3. ___   4. ___
    My idea of "Family"   My idea of "Family"
     is mostly "White", rela-   is very strongly Indian:
    tives/friends are just   we are ALL relatives
    what they are

9. How often do you attend traditional American Indian ceremonies (i.e Sweat lodge, Pipe Ceremonies, Sundance, Shaky Tent, Vision Quest)?

    1. ___   2. ___   3. ___   4. ___
    I never   I attend Indian
    attend Indian   ceremonies
    ceremonies   frequently

10. How often do you attend more White, Christian religious ceremonies (Christenings, Baptisms, Church services)?

1. ___   2. ___   3. ___   4. ___
I never attend   I attend
Christian   Christian
ceremonies   ceremonies frequently

11. How often do you participate in Indian dancing (Grass, Fancy, Jingle-Dress,Round, etc.)?

1. ___   2. ___   3. ___   4. ___
I never   I participate in
participate in   Indian dances
Indian dances   frequently

12. To how many social organizations do you belong where most of the members are Indian?

1. ___   2. ___   3. ___   4. ___
I belong to   Most of the
no Indian   organizations I belong
organizations   to are Indian organizations

13. How often do you attend White celebrations (i.e. White ethnic festivals, parades, etc)?

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

14. How often do you attend Indian celebrations (i.e. Pow-Wows, Wacipis, Hand-games)?

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

15. How many of your family speak an American Indian language?

1. ___   2. ___   3. ___   4. ___
None of my   Most of my
family   family
speak Indian   speak Indian

16. How much do you speak an American Indian language?

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

17. To what extent do members of your family have Indian first or last names (like "Wambli" or "Kills-in-Water")?

    1. ___   2. ___   3. ___   4. ___

    None have   Most or all have

    Indian names   Indian names

18. How often do you talk about White news and culture in your daily conversation?

    1. ___   2. ___   3. ___   4. ___

    I never engage   I engage in

    in topics of   topics of

    conversation   conversation about

    about Whites and   Whites and their

    their culture   culture frequently

19. How often do you talk about Indian topics, news and culture in your daily conversations?

    1. ___   2. ___   3. ___   4. ___

    I never discuss Indian   I discuss Indian news or

    news or cultural issues   cultural issues daily

20. How much do you believe in any Indian Creation Stories (how Earth/People/Animals were made?)

    1. ___   2. ___   3. ___   4. ___

    I don't believe   I very strongly

    in any of those stories   believe in those stories

21. How much do you believe in any non-Indian Creation Stories (Adam/Eve, Garden of Eden, etc?)

    1. ___   2. ___   3. ___   4. ___

    I don't believe   I very strongly

    In any of those stories   believe in those stories

22. In general, much do you believe *"Success"* best means when an **individual** wins or achieves something?

    1. ___   2. ___   3. ___   4. ___

    I totally believe success is   I totally believe success is

    best achieved by individuals   best achieved by groups (i.e.families

                                            teams, tribes, etc.)

23. How important is your European or White American heritage and history to you?

    1. ___   2. ___   3. ___   4. ___

    Not at all   Very

    Important   important

APPENDIX E

(CAST)

Please check the answer below that best describes your feelings, behavior and experiences related to a parent's alcohol use. Take your time and be as accurate as possible	Yes (1)	No (2)
Have you ever thought that one of your parents had a drinking problem? (1)	○	○
Have you ever lost sleep because of a parents drinking? (2)	○	○
Did you ever encourage one of your parents to quit drinking? (3)	○	○
Did you ever feel alone, scared, nervous, angry or frustrated because a parent was not able to stop drinking? (4)	○	○
Did you ever aruge or fight with a parent when he or she was drinking? (5)	○	○
Did you ever threaten to run away from home becuase of a parent's drinking? (6)	○	○

Has a parent ever yelled at or hit you or other family members when drinking? (7)	○	○
Have you ever heard your parents fight when one of them was drunk? (8)	○	○
Did you ever protect another family member from a parent who was drinking? (9)	○	○
Did you ever feel like hiding or emptying a parent's bottle of liquor? (10)	○	○
Do many of your thoughts revolve around a problem drinking parent or diffculties that arise because of his or her drinking? (11)	○	○
Did you ever wish that a parent would stop drinking? (12)	○	○
Did you ever feel responsible for or guilty about a parent's drinking? (13)	○	○
Did you ever fear that your parents would get divorced due to alcohol misuse? (14)	○	○
Have you ever withdrawn from and avoided outside activities and friends becuase of embarrassment and shame over a parent's drinking problem? (15)	○	○

Did you ever feel caught in the middle of an argument or fight between a problem drinking parent and your other parent? (16)	○	○
Did you ever feel that you made a parent drink alcohol? (17)	○	○
Have you ever thought that a problem drinking parent did not really love you? (18)	○	○
Did you ever resent a parent's drinking? (19)	○	○
Did you ever think your father was an alcoholic? (20)	○	○
Did you ever wish your home could be more like the homes of your friends who did not have a parent with a drinking problem? (21)	○	○
Did a parent ever make promises to you that he or she did not keep because of drinking? (22)	○	○
Did you ever think your mother was an alcoholic? (23)	○	○
Did you ever wish that you could talk to someone who could understand and help the alcohol-related problems in your family? (24)	○	○
Did you ever fight with your brothers and sisters about a parent's drinking? (25)	○	○
Did you ever stay away from home to avoid the drinking parent or your other parent's reaction to the drinking? (26)	○	○

Have you ever felt sick, cried, or had a "knot" in your stomach after worrying about a parent's drinking? (27)	○	○
Did you ever take over any chores and duties at home that were usually done by a parent before he or she developed a drinking problem? (28)	○	○
Have you ever worried about a parent's health because of his or her alcohol use? (29)	○	○
Have you ever been blamed for a parent's drinking? (30)	○	○

APPENDIX F

(BPAQ)

Using the 5 -point scale shown below, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

1 = **extremely uncharacteristic of me**
2 = **somewhat uncharacteristic of me**
3 = **neither uncharacteristic nor characteristic of me**
4 = **somewhat characteristic of me**
5 = **extremely characteristic of me**

	1	2	3	4	5
1. Some of my friends think I am a hothead (1)	○	○	○	○	○
2. If I have to resort to violence to protect my rights, I will. (2)	○	○	○	○	○
3. When people are especially nice to me, I wonder what they want. (3)	○	○	○	○	○
4. I tell my friends openly when I disagree with them. (4)	○	○	○	○	○
5. I have become so mad that I have broken things. (5)	○	○	○	○	○

6. I can't help getting into arguments when people disagree with me. (6)	○	○	○	○	○
7. I wonder why sometimes I feel so bitter about things. (7)	○	○	○	○	○
8. Once in a while, I can't control the urge to strike another person. (8)	○	○	○	○	○
9. I am an even-tempered person. (9)	○	○	○	○	○
10. I am suspicious of overly friendly strangers. (10)	○	○	○	○	○
11. I have threatened people I know. (11)	○	○	○	○	○
12. I flare up quickly but get over it quickly. (12)	○	○	○	○	○
13. Given enough provocation, I may hit another person. (13)	○	○	○	○	○
14. When people annoy me, I may tell them what I think of them. (14)	○	○	○	○	○
15. I am sometimes eaten with jealousy. (15)	○	○	○	○	○

16. I can think of no good reason for ever hitting a person. (16)	○	○	○	○	○
17. At times I feel I have gotten a raw deal out of life. (17)	○	○	○	○	○
18. I have trouble controlling my temper. (18)	○	○	○	○	○
19. When frustrated, I let my irritation show. (19)	○	○	○	○	○
20. I sometimes feel that people are laughing at me behind my back. (20)	○	○	○	○	○
21. I often find myself disagreeing with people. (21)	○	○	○	○	○
22. If somebody hits me, I hit back. (22)	○	○	○	○	○
23. I sometimes feel like a powder keg ready to explode. (23)	○	○	○	○	○
24. Other people always seem to get the breaks. (24)	○	○	○	○	○
25. There are people who pushed me so far that we came to blows. (25)	○	○	○	○	○

26. I know that "friends" talk about me behind my back. (26)

○　　　○　　　○　　　○　　　○

27. My friends say that I'm somewhat argumentative. (27)

○　　　○　　　○　　　○　　　○

28. Sometimes I fly off the handle for no good reason. (28)

○　　　○　　　○　　　○　　　○

29. I get into fights a little more than the average person. (29)

○　　　○　　　○　　　○　　　○

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