This study examined the effect of biculturalism on stress in a proposed sample of 59 Northern Plains American Indian college students. Subjects completed the Northern Plains Biculturalism Inventory (NPBI) and the Hassles Scale. The subscales of the NPBI were used as predictor variables and the total score of the Hassles Scale as the criterion variable. Additionally, the one-way Analysis of Variance (ANOVA) was utilized to assess differences between biculturally-oriented groups. This design tested the applicability of the Orthogonal Theory of Biculturalism. It was predicted that higher combined scores on the NPBI subscales predicted lower Hassles Scale scores. Results of this study did not support the study hypothesis that American Indian college students who consider themselves to be more bicultural will report lower levels of stress than their marginal peers. Recommendations are that the area of cross-cultural research be further investigated and expanded. There is the possibility that more culturally specific measures need to be developed. It is hypothesized that an individual's level and degree of Biculturalism significantly affects his or her psychological well-being, and although this project did not clearly support the Orthogonal Theory of Biculturalism, it provides a basis for further research. No significant results were found in this study. Appended are: Informed Consent; Demographic Questionnaire; Hassles Scale; Northern Plain's Biculturalism Inventory; Figures; and a Table. (Contains 21 references.) (Author/JDM)
THE RELATIONSHIP BETWEEN BICALUTURALISM AND STRESS
AMONG NORTHERN PLAINS AMERICAN INDIAN COLLEGE STUDENTS

by

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ABSTRACT

This study examined the effect of Biculturalism on stress in a proposed sample of 59 Northern Plains American Indian college students. Subjects completed the Northern Plains Biculturalism Inventory (NPBI) and the Hassles Scale. A multiple regression analysis was performed utilizing the SPSS 10.0 statistical package. The subscales of the NPBI were used as predictor variables and the total score of the Hassles Scale as the criterion variable. Additionally, a one-way Analysis of Variance (ANOVA) was utilized to assess differences between Biculturally-oriented groups. This design tested the applicability of the Orthogonal Theory of Biculturalism (Oetting & Beauvais, 1990). It was predicted that higher combined scores on the NBPI subscales predicted lower Hassles Scale scores. Results of this study did not support my study hypothesis that American Indian college students who consider themselves to be more Bicultural will report lower levels of stress than their Marginal peers. Recommendations are that the area of cross-cultural research be further investigated and expanded. There is the possibility that more culturally specific measures need to be developed. It is hypothesized that an individual’s level and degree of Biculturalism significantly affects his/her psychological well-being, and although this project did not clearly support the Orthogonal Theory of Biculturalism, it provides a basis for further research. No significant results were found in this study.
CHAPTER I

Introduction

Nearly everyone encounters stress on a daily basis. For American Indian college students attending predominately White institutions, stress can be especially prevalent. The reasons for its prevalence may include perceived racism and differences in customs and values. American Indian students also grapple with the decision of whether to return to their reservations to implement their newfound education and skills. In addition, many American Indian college students are away from their homes for the first time and are dealing with living on their own. With this new responsibility comes additional challenges, such as coping with peer pressure in the areas of alcohol and drug use, and sexual situations.

Stress in American Indian Students Related to Attending College in an Environment in Which They Are a Cultural Minority

Researchers (McDonald, 1992; Jeanotte, 1980) suggest that cultural barriers may adversely affect American Indian college students by putting them at risk for increased stress, often resulting in individual attrition from college. McDonald, Jackson, and McDonald (1992) determined that Indian college students do indeed experience greater levels of anxiety and stress than majority culture college students and these increased levels can have a direct relationship on academic performance. Their findings support the
belief that American Indian college students experience difficulties related to cultural differences. They also determined that American Indian college students perceive their university environment as less friendly than the reservation and that they are less confident about their ability to achieve their academic goals than their majority culture counterparts. In addition, Whitehorse (1993) suggested that an institution that recognizes and supports Indian biculturalism and cultural diversity will have greater success in retaining American Indian college students as compared to institutions that do not recognize and support Indian biculturalism and cultural diversity.

Physiological and/or Psychological Impacts of Stress

Stress can be manifested in several ways: physically, emotionally, and behaviorally. If college students, of any cultural orientation, do not learn to manage stress in a productive manner, many psychological and/or physiological problems may result. Hale, Greenberg, and Ramsey (1990) state that some of these problems include irritability, fatigue, lack of concentration, headaches, depression, or a combination of these.

Preferred Methods of Stress Management

According to Archer (1986), several methods of stress management are effective such as exercise, relaxation techniques, proper rest, and proper nutrition. College students must learn how to recognize stress as soon as it begins to occur and learn to deal with it effectively to prevent psychological and/or physiological problems.

Theory of Biculturalism and its Relation to Overall Mental Health

The Orthogonal Theory of Biculturalism (Oetting & Beauvais, 1993) suggests the
more culturally competent an individual is in both his/her native and the majority culture, the more successful and well adapted he/she will be. In addition, the theory suggests that highly bicultural individuals will exhibit a stronger sense of identification, experience lower levels of psychopathology, participate in cultural activities, have better communication skills, and are more knowledgeable about cultural norms and customs in both cultures than individuals who are less bicultural (LaFromboise, Coleman, & Gerton, 1993). Whitehorse (1993) also claimed that college students who identified themselves as bicultural had greater flexibility in coping with the university environment and were more persistent in their academic achievement than individuals who did not consider themselves to be bicultural.

Unfortunately, there is little empirical research analyzing the Orthogonal Theory of Biculturalism and even less in regard to stress among American Indian college students. To date, the association between biculturalism and stress among American Indian college students has yet to be established. The goal of this study was to provide important information on stress and American Indian college students and the role cultural orientation plays in this relationship, if any.

**Definition of Key Terms**

**Stress.** Selye (1950) proposed that stress refers to the non-specific response of an individual to stimuli or stressors (Institute of Medicine National Academy of Sciences, 1982). In addition, Burke states that “The traditional view is that stress is a set of demands on individuals that tax or exceed their resources for managing them” (1996, p. 146).
Stressors: In simple terms, Selye (1950) used the term stimulus as a synonym for stressor. In addition, a stimulus could only be termed a stressor if it produced a specific, objective, physiological change stress response, (Institute of Medicine National Academy of Sciences, 1982).

Hassles: defined as “The irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment” (Wheaton, 1996, p. 47).

Hassles can also be irritants, things that may annoy or bother one, or things that can make one angry or upset.

American Indian, Native American, Indian, and Native peoples: “(a) any group or individual who can demonstrate blood quantum or ancestral lineage to any federal, state, or locally recognized tribe and/or (b) any person who becomes a member of such a tribe through ceremonial adoption and strives to live in traditional Indian fashion” (McDonald, Morton and Stewart, 1993, p. 438).

Biculturalism: defined by Oetting and Beauvais (1990) as “Being involved with one culture while acquainting with another, thus becoming highly identified with both cultures without losing the identity of either” (p. 661). Oetting and Beauvais’ Orthogonal Theory of Biculturalism suggests that “It is not essential to lose contact with one culture while adapting to another; an individual can have a high level of involvement in both cultures “(p. 661). Bicultural competence, or highly identifying with more than one culture correlates with good mental health.

Cultural Competence: Cultural competence can be thought of as the degree to which an individual has acquired a certain level of knowledge and experience about the
characteristics that define a particular culture, expresses these characteristics in his/her daily life, and passes them down intergenerationally.

Literature Review

American Indian Stress-Related Studies

A study by McDonald, Jackson, and McDonald (1991) found that American Indian college students do indeed experience greater levels of anxiety and stress than majority culture college students. Their findings support the belief that American Indian college students encounter difficulties which relate to cultural differences. Their study was completed on 150 Indian and non-Indian undergraduate students from both a state university and a tribal community college. The mean age of the university students was 25.7, while the mean age of the community college students was 20.7. In both college samples, participants were mostly female. The university sample consisted of 58% female participants, while the community college consisted of 76% female participants. The State-Trait Anxiety Inventory (STAI, Spielberger et al., 1977) was used in this study. One of the most relevant findings of the study was the disparity between the Indian and non-Indian students in their confidence in academic ability. Indian students often felt that their high school experience did not properly prepare them for college. Another outcome of this study found that American Indian college students are somewhat more pessimistic about graduating from college than their non-Indian counterparts. This study outlined the main concerns of American Indian college students.

The Native American College Student Attitude Scale (NACSAS) developed by McDonald (1992) determined the degree to which American Indian students perceive
racism from their institutional environments. The research also suggests that perceived racism and problems associated with forced acculturation can make college life especially troublesome for Indian students, who are the most under-represented ethnic group in American colleges and universities. As a result, these problems can contribute to higher attrition rates, as high as 80%, among American Indian college students. In McDonald’s study, 115 American Indian college students from a South Dakota university participated. The Native American College Student Attitude Scale (NACSAS) was developed and implemented in this study. This scale was used to determine if American Indian students were at risk for attrition; the scale was also used to provide group attitudinal data.

According to Price and McNeill (1992), more traditional Indian students who are more committed to their cultural ways are less likely to seek counseling than non-traditional Indian students. Since traditional Indians are assumed to be less bicultural than Traditional Indians, they often fail to seek needed counseling and could as a result be experiencing more stress. In Price and McNeill’s study, participants represented 46 American Indian tribes. A total of 74 (33 men and 41 women) participated in this study conducted by the counseling center at Haskell Indian Junior College in Lawrence, Kansas. The mean age of the subject was 24.5 years, while the mean years of education was 14. The tool used in the study was The Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) which was developed by Fisher and Turner in 1970. This scale contains 29 Likert-type items that provide information about the subject’s attitudes toward seeking professional counseling for psychological disturbances. The scale is further divided into four subscales which are derived from factor analysis.
The result of the study confirmed that American Indian College students firmly committed to their tribal ways showed noticeably less favorable overall attitudes toward seeking counseling.

A review by LaFromboise, Coleman, and Gerton (1993) contends that there is a connection between biculturalism and academic success. They suggest that the more bicultural an Indian student is, the better he/she is adjusted academically and culturally. They also state that biculturalism can be the key to positive physical and mental health. Although there is a lack of controlled or longitudinal research in this area, the authors have been able to identify some skills of biculturalism that they hypothesize are central to Indian students becoming socially competent people in two cultures. In addition, they feel that each of these skills of biculturalism should be empirically examined before they are successfully implemented.

In an article by LaFromboise (1988), it was noted that increasingly Indian college students are seeking psychological services during their university careers, especially if they have access to an Indian psychologist. LaFromboise showed that when college students took advantage of these services, they had more faith in psychological interventions upon returning to their reservations after completing their degrees. Unfortunately, however, this article also pointed out that only about 16% of American Indian students complete their university degrees in comparison to their non-Indian counterparts, who complete their degrees at the rate of 34%. This low completion rate for Indian students in her study was attributed to stressful pressures they experience in majority culture institutions.
In a study conducted by Whitehorse (1993), the association between Indian student cultural identification and perception of institutional factors they felt supported or impeded their ability to succeed in their academic endeavors was investigated. Data was gathered by analyzing archival data, student surveys, student and Indian educator focus groups, and interviews of former students and institution personnel. The central finding of this study was that Indian students' perceptions and expectations of what they expected from the university varied based on their cultural identification. Whitehorse concluded that the degree of congruence between cultural identification and appropriate institutional support increased the Indian students' psychosocial adjustment, their degree of bonding with the university, and their persistence in academic endeavors.

It is important to explore effective coping methods that are appropriate to American Indian students, since there appears to be a shortage of such information (LaFromboise, 1988; McDonald, 1992). The limited amount of existing research is inadequate, and possibly even inaccurate, due to a lack of cross-cultural competence on the part of many majority culture researchers (McDonald, Morton, & Stewart, 1993). Furthermore, it is inappropriate to generalize research conducted with majority culture samples to minority culture members.

Majority Culture Stress Management Studies

At a large eastern university, Greenberg, Hale, and Ramsey (1990) noted that at least 66% of the students seen in the university health care center had stress-related problems and that 50% of these students had illnesses related to this perceived stress. Unfortunately, only about 10% of the students recognized their illnesses as stress-related.
In addition, it was noted that 72% of all students seen in the health care center could benefit by learning constructive ways to cope with stress.

Archer (1986) determined that further research needs to be done to find stress management techniques that can be taught to college students in a time-limited format. He also found that college students responded to stress management techniques such as relaxation, exercise, and positive self-statements they could learn easily and practice often.

Brown (1992) found in his study of a southeastern university that stress that becomes distress is more predominant at certain times of the academic semester. He cited several principles that can be implemented by college students to adapt their behavior during the semester. In addition, Brown set the following goals that college students should follow in order to reduce their stress: (1) recall past academic distress as a means of persuading them to be more open-minded to suggestions for avoiding predictable distress in the future; (2) assist students to see that their distress is a result of procrastination; and (3) convince them to attempt to reduce stress that commonly comes later in the semester by increasing the stress at the beginning of the semester. Stress is especially predictable during mid-term and final exam weeks. According to Brown, “Student academic stress may be reduced and controlled through effective time management and study techniques” (p. 88). Most of these programs focus on beginning large jobs well before the due dates, breaking down large jobs into small jobs, and setting up a schedule to work on those small tasks (Brown, 1991). Time management is an important aspect in avoiding stress.
In a article by Nicholson, Belcastro, and Duncan (1989), a study was conducted on a Midwestern university campus to determine the effectiveness of stress management programs offered on several Midwestern college campuses. These authors wanted to ascertain whether stress management counseling would improve an individual's capacity to cope with stress. During the semester, three stress management programs were offered. These programs met once a week, for two hours, for a total of three weeks. The program offered lectures, group discussion, activities, and training in relaxation methods. Six hundred and fifty-three students (297 males, 356 females) participated in the stress management programs. The measurement design used a quasi-experimental untreated comparison group design with pre- and posttests. It was determined that no treatment effect was found in the six-hour, two-week stress management program. A longer, more intense program, which would allow for better individual training and monitoring may be required.

In an article by Stevens and Pfost (1984), the authors outlined eight components of stress management that can be consolidated into an individual or group format such as assessment, provision of stress information, relaxation training, cognitive restructuring, problem solving, time management, nutritional counseling, and exercise planning. These eight areas could also be further divided into smaller sections for easier presentation.

Thomas and Scott (1987) conducted a study on a southwestern university campus which involved 222 students. Thirty-eight percent of the students were self-referred, 54% were physician- or nurse-referred, and 9% were referred by other entities of the university. A holistic model was incorporated and it was determined that student
stressors on this particular campus were the same as those on other college campuses. After polling over 200 students who participated in the college’s student stress management program, it was determined that the most popular form of stress management on this campus was a self-directed relaxation room that contained comfortable furniture and a tape recorder. Relaxation tapes were provided to the student, as well as a hand-held biofeedback system. Evaluation forms were available in the room and students were encouraged to fill them out. It was noted that as the academic year progressed, use of the relaxation room increased.

According to Hale, Greenberg and Ramsey (1990), college years are often fraught with stress, pressure, and associated student symptomatology. Many suggest that the time spent in college may be the most stressful in one’s life. Their study of 95,000 (65% female, 35% male) college students revealed three major areas of concern: the competition for good grades, financial burdens that require the majority of students to work while earning their degrees, and an unstable network of social support. Many college students experience a variety of physical and emotional symptoms, but often these symptoms are related to their lack of knowledge of the stressors and their inability to cope effectively with them. Because of this lack of knowledge and inability to effectively cope, it is extremely important to identify college students’ stress-related needs and interests, so their awareness of the impact of stress may be increased in order to decrease damage to their physical and emotional well-being. Early detection may result in healthy behavioral changes that will decrease stress during their college career and beyond.

Learning to recognize these stressors and methods of coping with them properly is
especially important to psychological and physiological well-being. The foundation for learning how to cope and make decisions is set in college, and college students' choices of life-styles may affect their health for the remainder of their lives (Downey, 1983; Hale, Greenberg, & Ramsey, 1990).

There are several recognizable symptoms of stress, and according to Hale, Greenberg and Ramsey, 1990) “Irritability, fatigue, problems in concentration, headaches, depression, or a combination of these may signal the need for stress management” (p. 78).

There are several methods of stress management and types of coping skills. In the study conducted by Hale, Greenberg, and Ramsey, college students said that the most preferred method of stress management was exercise. In this same study, 72 percent of the students listed several other methods of coping with stress such as talking to friends, calling family, sleeping, drinking alcohol or taking drugs, getting away from campus for a night or weekend, listening to music, going to a party, watching television, and/or overeating (Hale, Greenberg, & Ramsey, 1990). Most of these methods of stress management are positive, although the use of drugs and alcohol, and overeating could have very negative consequences, such as drug and alcohol addiction, and unnecessary weight gain. The most positive stress management techniques and coping skills included relaxation exercises with deep breathing, positive thoughts, completing the course work causing the stress, getting organized, and getting the proper amount of rest (Hale, Greenberg, & Ramsey, 1990). Many colleges and universities do not have stress management courses or workshops. According to Thomas and Scott (1987), college students are often willing to seek assistance for stress, even though they may not be willing to seek counseling for
any other difficulties they may have in their personal lives.

There are two aspects stress management programs should deal with and the first aspect of stress management should be stress prevention. According to Archer (1986), there is a wide variety of literature that describes many different preventive approaches to stress management for college students. These approaches usually attempt to teach a variety of stress management techniques. These techniques enable the student to manage stress before it builds to a crisis, which may cause psychological and physiological problems (Archer, 1986). Some of these methods include deep muscle relaxation, meditative breathing, proper nutrition, and regular exercise (Archer, 1986). The model used for the prevention of stress management includes education in physical, cognitive and lifestyle approaches. These techniques teach the college student to relax, physically and mentally, to modify cognitive processes that can cause stress and anxiety, and to recognize and change lifestyle choices that can lead to stress (Archer, 1986). According to Archer, “In addition to the specific learning that takes place in a preventive/educational approach like this, there is an increase in self-awareness and understanding” (p. 160).

It is important to view stress as detrimental not only to one’s mental state, but also to one’s physical state of being. There is a connection between the physical manifestations of stress and the cognitive process of worrying. The events are as important as the association between one’s choices about lifestyle and how these choices alter the cognitive and physical domain (Archer, 1986).

According to Brown (1991), there are several suggestions college students can follow to change their behavior in adaptive ways; and Brown suggests the following
Principles for Student Stress Management:

1. The best predictor of future behavior is past behavior. Even if more effective behaviors are available, students should stick with what works, especially if it is positive behavior.

2. The best predictor of future stress is past stress. If students do not change their stress-evoking behaviors, future stress can be easily predicted.

3. Spaced practice is more effective than massed practice. Several short practice sessions over the semester are more effective than massed practice sessions.

4. Motivation and goal-setting facilitate active involvement in learning and studying. Motivation is especially important in a college career and aids in goal-setting behaviors.

5. People who accept responsibility for their behavior perform better and are generally happier. Those who accept responsibility for their shortcomings should do better academically by not repeating their mistakes.

6. Both practice and study require effort and time. Those who are not willing to put in the time and effort will find that academic success will not come easily.

7. Familiarity breeds knowledge. Students should become as familiar and comfortable with the information as they possibly can and will know it when necessary.

8. Learning and study sessions should be similar to test-taking situations. Answering practice questions during study sessions facilitates answering the questions correctly during test-taking.

9. To organize is to remember. Students should organize materials so
information will become easier to retrieve and recall.

American Indian college students can use many of these tips to assist them in relieving stress. Motivation and goal setting are especially important, because without motivation, one will not realize his/her goals. Accepting responsibility for one's behavior means attributing successes or failures to one's own effort. Familiarity breeds knowledge means becoming as familiar with the material as possible, and when this is accomplished, one will know the material when tested, thus reducing test anxiety. Study sessions can help reinforce the material since hearing the material is often as important as reading it. In addition, it is important for Indian students to use the resources offered to them such as tutoring and workshops.

The second aspect of stress management should be the management of stress once it has been detected. Due to the many adjustments and challenges of college life, students often seek to improve their aptitude to manage stress effectively (Stevens & Pfost, 1984).

Hale, Greenberg, and Ramsey (1990) found that at a large eastern university, the average age of college students responding to the survey was 21 years old. Sixty-five percent of the participants were female, while 40% were seniors, 32% juniors, 17% sophomores, and 11% freshman. When asked about the topics they would like included in a stress management program, they listed the following: How stress affects the body, how stress affects the mind, ways of determining the amount of stress in one's life, the role of personality in a stressful lifestyle, how stress affects performance, the relationship between stress and illness/disease, and how to manage stress effectively (Hale, Greenberg, & Ramsey, 1990). It was also noted that students considered stress to be a
very personal issue; therefore, 87% preferred working in small groups instead of large groups of people. In addition, 32% said they would like to attend alone, while 55% replied that they would attend as long as there were no more than 10 others in attendance.

Purpose and Study Hypothesis

In this study, I investigated the relationship between biculturalism and perceived stress among a sample of Northern Plains American Indian college students. It was hypothesized that American Indian college students who considered themselves to be more bicultural would report lower levels of stress than their more Marginal peers. Specifically, subjects scoring higher on the AICI and EACI subscales of the NPBI would record lower levels of stress on the Hassles Scale (DeLongis, Folkman, & Lazarus, 1988). In addition, highly bicultural individuals will exhibit a stronger sense of identification, experience lower levels of psychopathology, participate in cultural activities, have better communication skills, and are more knowledgeable about cultural norms and customs in both cultures than those consider themselves to be less bicultural (LaFromboise, Coleman, & Gerton, 1993). Whitehorse (1993) also claimed that college students who identified themselves as bicultural had greater flexibility in coping with the university environment and were more persistent in their academic achievement than individuals who did not consider themselves to be bicultural.
CHAPTER II
Methodology

Participants

Participants consisted of 59 (29 male, 30 female) undergraduate and graduate American Indian college students attending the University of North Dakota in the 2000 academic school year. American Indian status was established either through reported: a) enrollment in a federally recognized tribe, or b) reported family lineage and community recognition. Further demographic information may be found in Table 1.

Materials

The research packet consisted of: 1) informed consent form; 2) demographic questionnaire; 3) Northern Plains Biculturalism Inventory (NPBI); and 4) the Hassles Scale. All four aspects of the research packet are further described below:

Informed Consent: This form was developed in accordance with suggestions from the University of North Dakota Internal Review Board (IRB). Participation was strictly anonymous. The subject’s name appeared only on the informed consent form which was detached from the rest of the research packet upon completion. These forms were secured in the Indians Into Psychology Doctoral Education (INPSYDE) Program office by the researcher to ensure security and to prevent any association of the participating individuals to the study. On this form, subjects were advised that participation was
strictly confidential, anonymous, and voluntary, the amount of time involved, and potential risks and benefits. A choice of extra credit for a current or future psychology class or five dollars was offered to those who chose to participate. Finally, the researcher’s name and phone number, as well as that of the committee advisor, was included on the form in the event any questions arose regarding the study.

**Demographic Sheet:** The second form contained several items that assessed the participant’s background. Information provided on the sheet established the age, gender, year in school, major, and tribal affiliation of the participant. In addition, these variables were examined to provide information regarding general characteristics of the sample.

**Northern Plains Biculturalism Inventory (NPBI):** The NPBI (Allen & French, 1994) is a 30-item inventory that provides a measure of identification with Northern Plains and non-Indian Midwestern culture. The NPBI’s main focus is on social behavior, which is assumed to be motivated by the underlying constructs of attitudes, beliefs, world view, and acculturation. Of the two versions of the NPBI developed, for my study I chose the college version, since it was designed with the college student population in mind.

The NPBI utilizes a circular model of cultural identification. American Indian researchers (Allen & French, 1994) suggested cultural competence in more than one culture leads to better mental adaptation and higher self-actualization in Indian people. Strong traditional ties constitute high scores on the American Indian Cultural Identification (AICI) subscale. Identification with the majority culture produces higher scores on the European/American Cultural Identification (EACI) subscale. A strong bicultural identification produces higher scores on both the AICI and EACI. On the other
hand, low scores on the AICI and EACI shows Marginal or no clear identification with either American Indian or European/American culture. Response choices on the NPBI range from 1 (No comfort/desire to engage in specific behaviors associated with either Indian or European/American culture) to 5 (Great comfort/desire to engage in specific behaviors associated with either Indian or European/American culture). The NPBI has a third scale, a language subscale, that was not utilized in this study.

Two scores are obtained, one by adding up the EACI items and one for AICI items. Raw scores were obtained by adding the response number for each of the items belonging to the two subscales. There were four items that were reverse-keyed, of which only one was used in the two scales in this study. Allen and French (1994) reported that a six-month test-retest reliability for the college version found $r = .82$ for the AICI Scale and $r = .70$ for the EACI scale.

The Hassles Scale: The Hassles Scale (DeLongis, Folkman, & Lazarus, 1988) is a 53-item inventory that assesses hassles that have occurred on the day (over the past 24 hours) that the respondent takes the inventory. It is Likert-scaled with the lowest rating (0) listed as “None or not applicable,” to the highest rating (3) listed as “A great deal.” Examples of hassles include: Health and well-being of a family member, work load, enough money for education, and amount of free time. Some hassles occur on a regular basis while others are rare. These hassles can have a slight or very strong effect on the respondent.

Procedure

The University of North Dakota Institutional Review Board (IRB) approved the study and the primary recruitment effort involved recruiting American Indian participants
from psychology department courses. A second subject recruitment consisted of individual recruitment and was conducted at the Office of Native American Programs during the final weeks of the Spring semester. Upon completion of the research packet, participants were awarded their choice of either $5.00 or an extra credit slip to be used in a current or future psychology class. A total of 59 participants was obtained, so a third subject recruitment effort consisting of solicitation by mail was not necessary.
CHAPTER III
Results

Respondent Characteristics

Thirty female and 29 male respondents participated in this study. The mean age was 29.80 (SD=8.4). Five percent were of freshman status, 12% were of sophomore status, 19% were of junior status, 36% were of senior status, 27% were graduate students, and 2% were referred to as “Other” (specification requested). There were 31 subjects of Chippewa/Ojibwe ancestry, 13 subject of the Lakota/ Dakota/ Nakota Nation, eight subjects of the Three Affiliated Tribes (composed of Arikara, Mandan, and Hidatsa), two Blackfeet, and five Others (Northern Arapaho, Omaha, Chumash, Navajo, and Zuni Pueblo). Thirty-five participants chose $5.00 compensation, 14 chose extra credit, and 10 chose neither. Of the 10 who chose neither, they were either friends or research team members who knew how costly research can be and chose not to accept payment for their participation in the study. In addition, the participant’s current major and number of family members in household was requested. Number of family members in household was looked at in order to determine if it was a factor that could increase the individual’s stress level and subsequently prevent the student from obtaining an education. Table 1 reflects the percentages and frequencies of age, gender, tribal affiliation, current class ranking, current major, and number of family members in household.
Figure 2 scatterplot reflects the subjects' data points in response to the two NPBI subscales. This scatterplot relates to Oetting and Beauvais' Orthogonal Theory of Biculturalism. Quadrant 1 shows those identified as bicultural (n=12). Quadrant 2 identifies those of traditional American Indian orientation (n=15). Quadrant 3 shows those identified as marginal (n=14). Quadrant 4 shows those identified as assimilated (n=18).

In the bicultural group, there were 5 males and 7 females. Their majors included: psychology (5), nursing (1), dietetics (1), political science (1), English (1), Indian studies (1), recreation therapy (1), and social science (1). Tribal affiliation for this group was distributed as follows: Chippewa/Ojibwe (4), Three Affiliated Tribes (4), Lakota/Dakota/Nakota (3), and Navajo (1). The mean age was 26.8 and the class status mean was 3.3. The Hassles Scale mean was 37.92.

In the traditional group, there were 7 males and 8 females. Their majors included: psychology (4), nursing (2), Indian Studies (1), communications (1), social work (1), biology (1), public administration (1), counseling (1), sociology (1), physical therapy (1), and undecided (1). Tribal affiliation for this group was distributed as follows: Chippewa/Ojibwe (6), Lakota/Dakota/Nakota (4), Three Affiliated Tribes (2), Chumash (1), Omaha (1), and Northern Arapaho (1). The mean age for this group was 27.3 and the class status mean was 3.73. The Hassles Scale mean was 37.0.

In the marginal group, there were 9 males and 5 females. Their majors included: psychology (3), education (2), nursing (1), industrial technology (1), geography (1), computer science (1), social work (2), criminal justice (1), biology (1), and undecided (1).
Tribal affiliation for this group was broken down as follows: Chippewa/Ojibwe (7), Lakota/Dakota/Nakota (3), Three Affiliated Tribes (2), Blackfeet (1), and Zuni Pueblo (1). The mean age for this group was 33.2 and the class status mean was 3.86. The Hassles Scale mean was 29.29.

In the assimilated group, there were 8 males and 10 females. Their majors included: psychology (6), education (3), pre-med (1), physical therapy (1), computer science (1), finance (1), research (1), English (1), nutrition (1), sociology (1), and undecided (1). The mean age for this group was 31.2 and the class status mean was 3.88. The Hassles Scale mean was 39.83. This information is presented in Tables 1 and 2.

**Data Analysis**

All completed questionnaires were coded and computer analyzed utilizing the SPSS 10.0 statistics software program. Five main data analysis efforts were employed in this study:

1. Descriptive statistics were conducted on all the variables and these statistics reflected the applicable mean, standard deviation, frequencies, and demographic variable percentages.

2. Upon examination of the descriptive statistics, Pearson Product Moment (PPM) correlational analyses were conducted to determine the strength and direction to which any of the subscales covaried, as well as their relationships with any demographic variables.

3. A multiple regression observed the power of the two NPBI subscales to predict scores (Independent Variables) on the Hassles Scale (Dependent Variable).
4. A one-way Analysis of Variance (ANOVA) was conducted to determine differences between the four cultural groups (corresponding to the four cultural quadrants on the NPBI scale) on Hassles Scale scores. This analysis determined mean differences between these groups in terms of perceived Hassles.

5. An independent t-test was performed to determine whether there was a gender difference in perceived stress level.

6. Finally, two non-parametric tests were performed in an attempt to find significance. A Mann Whitney U and a Chi-Square were performed.

Pearson Product-Moment (PPM) Correlation.

The PPM correlational analyses revealed only one significant relationship between the study variables. As can be seen in Table 3, the items measuring the participant’s total Hassles Scale score and his/her year in school demonstrated a mild negative correlation $r = -.29, p <.025$.

Independent T-Test.

There was no statistically significant differences between males and females on the Hassles Scale scores. This information is presented in Table 4.

Multiple Regression.

A linear multiple regression analysis using the two NPBI subscales (AICI/EACI) as predictor variables for the Hassles Scale total score showed no significant relationship. This information is presented in Table 5.
Analysis of Variance.

A one-way analysis of variance (ANOVA) of the Hassles Scale scores of each of the four quadrants showed no significant relationship. A median split technique was used to categorize the respondents into quadrants.

Non-Parametric Analyses.

Upon examination of the distributions of the three main study variables (Hassles Scale total score [HASTOTAL], and NPBI subscales [AICI, EACI], it was observed that the only measure demonstrating a distribution approximating a normal distribution was the EACI. The AICI distribution was clearly negatively skewed, while the HASTOTAL distribution was positively skewed. A graphic representation of these distributions are contained in Figure 3 and Figure 4. Given the skewness of the AICI and HASTOTAL distributions, the assumption of normal distribution required for parametric statistical analyses was therefore violated. Several non-parametric analyses were therefore conducted to further investigate the relationships between these variables.

Chi-Square. The purpose of this test was to ascertain if the cell sizes were equal. Observed n and expected n were not significantly different. This test determined that quadrant sizes were fairly equal: Quadrant 1 was 12 (residual= -2.8), quadrant 2 was 15 (residual= .3), quadrant 3 was 14 (residual= -.8), and quadrant 4 was 18 (residual=3.3). Expected n for cell sizes was 14.8. Chi-Square = 1.271, df = 3, p = .80.

Mann-Whitney U. The Mann-Whitney test is the most commonly used alternative to the independent samples t-test, except that the U test is computed based on rank sums rather than means. This test assumes that the variable under consideration was
measured on at least an ordinal scale. When the quadrants were ranked, quadrant 3, \( n=14 \), the mean rank was 13.75, while in quadrant 4, \( n=18 \), the mean rank was 18.64. The Mann-Whitney \( U \) was 87.50. This test found no statistical significance.
CHAPTER IV

Discussion

The mean age (29.80) of the research sample was slightly younger than previous INPSYDE research studies. More females participated in this study than males. It was observed in my study and in previous INPSYDE studies that the older than average student has a greater level of commitment to their studies than their younger counterparts. The majority of participants were between their third and fourth year of study. These demographic characteristics are typical of previous American Indian studies and suggest adequate subject representation in this sample.

The results of this study did not support my study hypothesis that American Indian college students who consider themselves to be more bicultural would report lower levels of stress than their Marginal peers. Rather, the Marginal students reported lower scores (29.29) on the Hassles Scale, than the bicultural students, who obtained a mean score of 37.92 on the Hassles Scale. The results from this study also did not support the Orthogonal Theory of Biculturalism regarding the Hassles Scale scores. This theory would suggest that those individuals who scored higher on both NPBI subscales would report lower scores on the Hassles Scale.

In addition, there was no statistical significant difference between men and women on Hassles Scale scores. A possible explanation for this lack of significance is
the possibility that both males and females handle their stress equally well. An additional possibility is that the Hassles Scale may not be a culturally appropriate tool to assess stress in the American Indian college student population. A final explanation may be the poor predictive power of the NPBI subscales. Further research testing the relationship between these two subscales is suggested to better understand whether they are orthogonal or related.

The conclusion I came to was that American Indian college students appear to handle the everyday hassles of life with relative ease as attested to by the following Hassle Scale mean scores: bicultural (37.92), traditional (37.0), marginal (29.29), and assimilated (39.83). The total possible score on the Hassles Scale is 162. I administered the surveys the last two weeks of school, which would appear to be a high stress period with finals and deadlines, but these students still did not appear to be especially stressed. Another important conclusion I reached was that the older the Indian student, the lower his/her Hassle Scale score. I believe this can be attributed to increased satisfaction and acceptance of their choices as far as education and career are concerned.

A limitation of this study included the time at which the data was gathered. The data was gathered the last two weeks of the Spring Semester and while this could be a time of increased stress due to impending final examinations, it could also have been a time of decreased stress due to the fact that school was almost over for the academic year.

Cross-cultural research is an area of psychology that needs to be expanded. The topics of cultural and Bicultural impact on individuals especially needs to be addressed further. Although this study yielded non-significant results, further research needs to be
conducted to investigate the impact of Biculturalism on minorities. There is the possibility that more culturally specific measures need to be developed. It is hypothesized that an individual's level and degree of Biculturalism significantly affects his/her psychological well-being, and although this project did not clearly support the Orthogonal Theory of Biculturalism, it provides a basis for further research.
Appendices

Research Packet
Appendix A
Informed Consent

Introduction: My name is Nova Griffith and I am inviting you to participate in a study that will attempt to examine the relationship between Biculturalism and stress among Northern Plains American Indian college students. During the session, I will ask you complete two short questionnaires. The purpose of this study is to increase the understanding of the relationship between Biculturalism and stress. This research will make non-Indian counselors/psychologists more aware of the uses and limitations of assessment instruments with varying Bicultural states that American Indian clients may present with.

Confidentiality: All information is strictly confidential and anonymous. Your name will appear only on the front of the informed consent form which will be detached from the rest of the research packet upon completion. You will be assigned a subject number and at no time will your name be used in the data collection, entry, or analysis process. The raw data will be stored by the researcher in a locked file cabinet and will be destroyed following completion of this project.

Benefits: You will receive one hour of extra credit for the psychology course of your choice. If you are not enrolled in a psychology course, you will be given $5.00 for your participation in this research. If you do decide to participate, you may withdraw at any time without penalty.

Inquiries: If you have any questions regarding this study or any related matters, or if in the future you have questions or want to know the results, please feel free to contact the investigators. Dr. J.D. McDonald is the supervisor of this study and can be reached at 777-4495. I, Nova Griffith am a second year clinical psychology graduate student, as well as the primary investigator, and can be reached at 777-9601 or 777-3241. Both the supervisor and the investigator, as well as the entire research team can be contacted at the Indians Into Psychology Doctoral Education Program (INPSYDE) at 777-4497.

I have read the above information and I am willing to agree to participate in this study.

Signature of Participant __________________________  Date ______________

Signature of Investigator __________________________  Date ______________

Please check your preference:
___ I would like extra credit in a psychology course.
   NAID and address:

Psychology course in which you are (or plan to) enroll:

___ I would like to receive $5.00 for my participation (Give name and address to mail money to).
   Name and address:
Appendix B
Demographic Questionnaire

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

1. Your age:_______

2. Your gender: Male___ Female___

3. Tribal Affiliation:________________________________________

4. Current class ranking:
   ____a. Freshman
   ____b. Sophomore
   ____c. Junior
   ____d. Senior
   ____e. Graduate
   ____f. Other (please specify):________________________________

5. Current Major:________________________________________

6. Number of family members in household:_______
Appendix C
Hassles Scale

Hassles are irritants—things that annoy or bother you; they can make you upset or angry. Some hassles occur on a fairly regular basis and others are relatively rare. Some have only a slight effect, others have a strong effect.

Directions: Please think about how much of a hassle each item was for you over the past 24 hours. Please indicate on the right-hand side of the page how much of a hassle the item was by circling the appropriate number.

How much of a hassle was this item for you today?

<table>
<thead>
<tr>
<th>Item</th>
<th>0 None or not applicable</th>
<th>1 Somewhat</th>
<th>2 Quite a bit</th>
<th>3 A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Your child(ren)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Your parents or in-laws</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Other relative(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Your spouse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Time spent with family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Health or well-being of a family being</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Intimacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Family-related obligations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Your friend(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Fellow workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Clients, customers, patients, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Your supervisor or employer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. The nature of your work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Your work load</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Your job security</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Meeting deadlines or goals on the job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How much of a hassle was this item for you today?

<table>
<thead>
<tr>
<th>Item</th>
<th>None or not applicable</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Enough money for necessities (e.g., food, clothing, housing,</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>health care, taxes, insurance)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Enough money for education</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. Enough money for emergencies</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Enough money for extras (e.g. entertainment, recreation,</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>vacations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Financial care for someone who does not live with you</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Investments</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Your smoking</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Your drinking</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26. Mood-altering drugs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27. Your physical appearance</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28. Contraception</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29. Exercise(s)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30. Your medical care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31. Your health</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>32. Your physical abilities</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>33. The weather</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>34. News events</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>35. Your environment (e.g., quality of air, noise level, greenery)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>36. Political or social issues</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>37. Your neighborhood (e.g. neighbors, setting)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>38. Conserving (e.g., gas, electricity, water, gasoline)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
How much of a hassle was this item for you today?

<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pets</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Cooking</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Housework</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Home repairs</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Yardwork</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Car maintenance</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Taking care of paperwork (e.g., paying bills, filling out forms)</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Home entertainment (e.g., TV, music, reading)</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Amount of free time</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Recreation and entertainment outside the home (e.g., movies, sports, eating out, walking)</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Eating at home</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Church or community organizations</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Legal matters</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Being organized</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Social commitments</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>How much stress do you feel today?</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix D

NPBI (Northern Plains Biculturalism Inventory) College

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 next to 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. X
   5. _

No
Some
Great
Comfort
Comfort
Comfort

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

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. Keep in mind that no two people have the same background.

1. What is your degree of comfort around White people?

   1._
   2._
   3._
   4._
   5._

   No
   Some
   Great
   Comfort
   Comfort

2. What is your degree of comfort around Indian people?

   1._
   2._
   3._
   4._
   5._

   No
   Some
   Great
   Comfort
   Comfort

3. How interested are you in being identified with Indian culture?

   1._
   2._
   3._
   4._
   5._

   No
   Some
   Great
   Desire
   Desire

4. How interested are you in being identified with White culture?

   1._
   2._
   3._
   4._
   5._

   No
   Some
   Great
   Desire
   Desire
5. How often do you think in English?
   1._ Rarely or never think in English
   2._ Half the time I think in English
   3._ Often or always think in English

6. How often do you think in an American Indian language?
   1._ Rarely or never think in American Indian language
   2._ Half the time I think in American Indian language
   3._ Often or always think in American Indian language

7. How much confidence do you have in a medical doctor?
   1._ I do not use medical doctors
   2._ Have some faith in medical doctors
   3._ Have strong faith in medical doctors

8. How much confidence do you have in a medicine man/woman?
   1._ I do not use medicine men/women
   2._ Have some faith in medicine men/women
   3._ Have strong faith in medicine men/women

9. How much is your way of tracing White ancestry (focus on biological relative, descent through father)?
   1._ I trace none of my ancestry according to White custom
   2._ I trace some of my ancestry according to White custom
   3._ I can trace all of my ancestry according to White custom

10. How much is your way of tracing Indian ancestry (cousins same as brothers and sisters, descent more through mother)?
    1._ I trace none of my ancestry according to Indian custom
    2._ I trace some of my ancestry according to Indian custom
    3._ I can trace all of my ancestry according to Indian custom

11. How often do you attend Indian religious ceremonies (sweatlodge, Indian Peyote churches, Sun Dance, vision quest)?

1._ 2._ 3._ 4._ 5._
I have never attended Indian religious ceremonies
I sometimes attend Indian religious ceremonies
I frequently attend Indian religious ceremonies

12. How often do you attend Christian religious ceremonies (Christenings, Baptisms, church services)?

1._ 2._ 3._ 4._ 5._
I have never attended Christian religious ceremonies
I sometimes attend Christian religious ceremonies
I frequently attend Christian religious ceremonies

13. How often do you participate in popular music concerts and dancing?

1._ 2._ 3._ 4._ 5._
I never participate in popular concerts/dances
I sometimes participate in popular concerts/dances
I frequently participate in popular concerts/dances

14. How often do you participate in Indian dancing (Owl, Stomp, Rabbit, etc.)?

1._ 2._ 3._ 4._ 5._
I never participate in Indian dances
I sometimes participate in Indian dances
I frequently participate in Indian dances

15. 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
I belong to some Indian organizations
I belong to several Indian organizations

16. To how many social organizations do you belong where a majority of the members are non-Indian?

1._ 2._ 3._ 4._ 5._
I belong to no non-Indian organizations
I belong to some non-Indian organizations
I belong to several non-Indian organizations
17. How often do you attend White celebrations (ethnic festivals, parades, etc.)?
   1._  
   2._  
   3._  
   4._  
   5._
   I never attend  
   I attend some  
   I often attend  
   White celebrations  

18. How often do you attend Indian celebrations (PowWows, Indian rodeos, etc.)?
   1._  
   2._  
   3._  
   4._  
   5._
   I never attend  
   I attend some  
   I often attend  
   Indian celebrations  

19. Does anyone on your family speak an American Indian language?
   1._  
   2._  
   3._  
   4._  
   5._
   They rarely speak 
   or never speak Indian 
   They often speak Indian of the time  

20. How often does your family use English?
   1._  
   2._  
   3._  
   4._  
   5._
   They rarely speak 
   or never speak English 
   They often speak English of the time  

21. What is your use of English?
   1._  
   2._  
   3._  
   4._  
   5._
   I rarely speak 
   or never speak English 
   I often speak English of the time  

22. Do you speak an American Indian language?
   1._  
   2._  
   3._  
   4._  
   5._
   I rarely speak 
   or never speak Indian 
   I often speak Indian of the time  

23. To what extent do members of your family have traditional Indian last names (like “Kills-in-Water”)?
   1._  
   2._  
   3._  
   4._  
   5._
   None have 
   Some have 
   All have 
   Indian names  
   Indian names  
   Indian names
24. To what extent do members of your family have last names that are not traditional Indian last names (like “Smith”)?

1._  2._  3._  4._  5._
None have  Some have  All have
White names  White names  White names

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

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

26. How often do you talk about Indian topics and Indian culture in your daily conversation?

1._  2._  3._  4._  5._
I never engage  I sometime engage  I frequently engage
in topics of  in topics of  in topics of
conversation about  conversation about  conversation about
Indians and their  Indians and their  Indians and their
culture  culture  culture

27. Do you wear White fashion jewelry?

1._  2._  3._  4._  5._
I never wear  I sometime wear  I often wear
White fashion jewelry  White fashion jewelry  White fashion jewelry

28. Do you wear Indian jewelry?

1._  2._  3._  4._  5._
I never wear  I sometime wear  I often wear
Indian jewelry  Indian jewelry  Indian jewelry

29. How Indian is your preference in clothing (clothes with Native artwork)?

1._  2._  3._  4._  5._
I never dress according to  I sometime dress according to  I often dress according to
Indian style  to Indian style  to Indian style
30. How White is your preference in clothing (latest trends)?

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 E

Figures
Figure 1. The Orthogonal Theory of Biculturalism
EACI
Q1=Bicultural, Q2=Traditional, Q3=Marginal, Q4=Assimilated
AICl=American Indian Cultural ID, EACI=European/American Cultural ID

Figure 2. NPBI Subscale Scatterplot
Figure 3. NPBI American Indian Cultural Identification (AICI)
Figure 4. NPBI European/American Cultural Identification (EACI)
Appendix F

Tables
Table 1

Descriptive Demographics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>M</th>
<th>SD</th>
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<td>Age</td>
<td>29.80</td>
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<tr>
<td>Gender</td>
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</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td>50.8</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td>49.2</td>
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<td>College Year</td>
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<tr>
<td>Freshman</td>
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<td>Sophomore</td>
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<td>Junior</td>
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<td>Senior</td>
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<td>Graduate</td>
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<td>Other</td>
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<td>Major</td>
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<td>Sociology</td>
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<td>Physical Therapy</td>
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<td>Indian Studies</td>
<td>3.4</td>
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<td>English</td>
<td>3.4</td>
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<td>Computer Science</td>
<td>3.4</td>
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<tr>
<td>Other</td>
<td>26.1</td>
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<tr>
<td>Tribal Affiliation</td>
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<tr>
<td>Chippewa/Ojibwe</td>
<td>52.5</td>
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<tr>
<td>Lakota/Dakota/Nakota</td>
<td>22.0</td>
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<tr>
<td>Three Affiliated Tribes</td>
<td>13.6</td>
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<tr>
<td>Blackfeet</td>
<td>3.4</td>
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<td>Other</td>
<td>8.5</td>
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Note: Females n=30, Males n=29
Table 2
Descriptive Data by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>M, F</th>
<th>Mean Age</th>
<th>Mean Class</th>
<th>Mean Hassles Score</th>
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<tbody>
<tr>
<td>1. Bicultural</td>
<td>12</td>
<td>5, 7</td>
<td>26.8</td>
<td>3.3</td>
<td>37.92</td>
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<tr>
<td>2. Traditional</td>
<td>15</td>
<td>7, 8</td>
<td>27.3</td>
<td>3.73</td>
<td>37.0</td>
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<tr>
<td>3. Marginal</td>
<td>14</td>
<td>9, 5</td>
<td>33.2</td>
<td>3.86</td>
<td>29.29</td>
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<tr>
<td>4. Assimilated</td>
<td>18</td>
<td>8, 10</td>
<td>31.2</td>
<td>3.88</td>
<td>39.83</td>
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</table>

Note: (1) N refers to total number of subjects in each quadrant. (2) M refers to number of Male subjects in each quadrant, F refers to number of Female subjects in each quadrant. (3) Mean age refers to average age of subjects in each quadrant. (4) Mean Class refers to current class ranking (i.e., freshman, sophomore, etc.). (5) Hassles Score refers to the mean Hassles Scale score for each quadrant.

Table 3
Pearson Product-Moment Correlational Results Matrix

<table>
<thead>
<tr>
<th>Item</th>
<th>Hassles</th>
<th>AICI</th>
<th>EACI</th>
<th>AGE</th>
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<tbody>
<tr>
<td>Hassles</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AICI</td>
<td>-.005</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EACI</td>
<td>.054</td>
<td>-.070</td>
<td>---</td>
<td></td>
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<tr>
<td>Age</td>
<td>-.095</td>
<td>-.182</td>
<td>.048</td>
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Note: Hassles refer to Hassles Scale score. AICI refers to American Indian Cultural Identification EACI refers to European American Cultural Identification
Table 4

Selected Independent t-Test Results

<table>
<thead>
<tr>
<th>Item</th>
<th>T</th>
<th>M</th>
<th>SD</th>
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<tr>
<td></td>
<td></td>
<td>Males</td>
<td>Females</td>
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<tr>
<td>HasTotal</td>
<td>.727</td>
<td>38.10</td>
<td>34.40</td>
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</table>

Note: (1) HasTotal refers to Hassles Scale Score

Table 5

Multiple Regression for Variables Predicting Hassles

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<tr>
<th>Item</th>
<th>Beta</th>
<th>SEB</th>
<th>P</th>
<th>Part</th>
<th>Partial</th>
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<tr>
<td></td>
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<tr>
<td>HasTotal</td>
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<td></td>
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<td>AICI</td>
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<td>EACI</td>
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Note: (1) AICI refers to American Indian Cultural Identification
(2) EACI refers to European American Cultural Identification
(3) HasTotal refers to subject’s scale score on Hassles Scale
References


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