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NAVAJO ETHNIC IDENTITY AND ACCULTURATION: DISCOVERING
CONNECTIONS BETWEEN ETHNIC IDENTITY, ACCULTURATION,
AND PSYCHOSOCIAL OUTCOMES

by

Matthew D. Jones

A thesis submitted in partial fulfillment
of the requirements for the degree
of

MASTER OF SCIENCE

in

Psychology

Approved:

UTAH STATE UNIVERSITY
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2005

ABSTRACT

Navajo Ethnic Identity and Acculturation: Discovering Connections Between Ethnic
Identity, Acculturation, and Psychosocial Outcomes

by

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Utah State University, 2005

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American Indians are severely disadvantaged and yet known relationships among risk and protective factors and cultural identification are limited. The current study assessed associations among measures of acculturation, ethnic identity, and psychosocial outcomes among Navajo adolescents. Adjustment of Navajo adolescents in the domains of school bonding, social functioning, self-esteem, depression, delinquent behaviors, and substance use was assessed. Navajo adolescents, between the ages of 14 and 18, also completed a self-report questionnaire containing the Revised Multigroup Ethnic Identity Measure, the Orthogonal Cultural Identification Scale, and the Native American Acculturation Scale. Measures of ethnic identity were positively associated with aspects of psychosocial functioning for Navajo adolescents, with stronger predictions of school bonding, self-esteem, and social functioning outcomes emerging for males. The students' sense of affirmation and belonging to their ethnic heritage emerged as the strongest

predictor of positive outcomes.

(112 pages)

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Matthew D. Jones

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INTRODUCTION

For many minority children, like many majority children, the challenge of identity development becomes prominent during adolescence. Research based on Erik Erickson's developmental stage theory concludes that exploring and developing identity is a primary developmental task of adolescence (Phinney, 1992; Spencer, Icard, Harachi, Catalano, & Oxford, 2000). For minority children, one important aspect of general identity development is the development of ethnic identity. With the advent of formal operational thinking, minority children are likely to become more cognizant of social and economic disparities based on race (Lutz & Sternberg, 1999). Recognition of both institutionalized and personal racism and prejudice may complicate even more a pivotal time in adolescent development.

One difficulty for ethnic identity researchers is that there is not one prominent definition of ethnic identity (Moran, Fleming, Somervell, & Manson, 1999). Ethnic identity is highly related to acculturation (the process by which a minority individual internalizes or assimilates into the dominant culture), enculturation (the process by which individuals learn about and identify with their traditional ethnic culture), as well as ego development and self-concepts (Branch, 2001; Zimmerman, Ramirez, Washienko, Walter, & Dyer, 1998). Despite the fact that they are related, acculturation, enculturation, and ethnic identity have been shown to be different constructs (Walters, 1999; Zimmerman et al.). Ethnic identity has been defined as the knowledge and attachment to one's ethnic group, as well as feelings of belonging to that ethnic group (Zimmerman et al.). Acculturation, on the other hand, is the behavioral and or attitudinal change that occurs when two differing cultures come into contact (Moyerman & Forman, 1992). One

type of acculturation would be assimilation, in which the minority takes on all or most aspects of the dominant culture.

Many measures of acculturation and ethnic identity are based on ethnic behaviors reported by ethnic minorities. Ethnic behaviors are utilized in acculturation and enculturation models in that they assess participation in behaviors specific to particular groups, including spirituality/ceremonies, language, traditional values, and social interactions with those of the same group. Those who endorse engaging more frequently in activities unique to the minority group or who report exclusive or nearly exclusive social contact with members of their own minority group score higher on the ethnic identity scale or are viewed as more traditional on acculturation scales. Although ethnic behaviors are an integral part of one's identity, assessment of participation in ethnic behaviors does not completely capture the thoughts, feelings, and attitudes that are essential components of ethnic identity (Walters, 1999).

Phinney (1996) describes the process of ethnic identity development in terms of exploration of, and commitment to, membership in a particular ethnic group. Ethnic identity varies greatly within groups and encompasses individual cultural experiences and influences as they interact with majority culture (Pellebon, 2000). Some aspects of ethnic identity, as described by Phinney (1992), are self-identification, ethnic behaviors and practices, and affirmation or subjective sense of belonging to one's ethnic group. Ethnic self-identification refers to the ethnic label with which a person identifies; this designation has often been relied on by researchers examining issues related to culture (Keppel, Percy, & Wagener, 2002; Rotheram-Borus & Lightfoot, 1998). Self-labeling, however, does not capture subjective thoughts, beliefs, and behaviors related to ethnicity,

which will differ from group to group and person to person. Examining multiple facets of ethnicity facilitates a more comprehensive understanding of ethnic identity. Furthermore, a multifaceted view of ethnic identity addresses concerns about categorization of bicultural individuals (Moran et al., 1999; Oetting & Beauvais, 1991). Moran and colleagues noted that many minority individuals identify with more than one culture and traditional models have not addressed this multi-dimensionality of ethnic identity.

In addition to the evident need for greater theoretical and measurement clarity in ethnic identity research, a better understanding of the relationship between ethnic identity and psychosocial adjustment would be an invaluable asset to minority communities with high rates of psychosocial difficulties. In locations characterized by true homogeneous ethnic backgrounds where adolescents grow up primarily around those of their ethnicity, some minority adolescents might not experience a strong need to examine their ethnic identity until later in life. This may also be true in locations where a minority individual was acculturated enough to fit in with the dominant culture. It may be when they are removed from these locations and face discrimination or other experiences that their ethnicity becomes more salient (Sue & Sue, 2003).

Many minority adolescents have not explored the meaning of their ethnicity. Moreover, if these young people have internalized negative societal stereotypes of their ethnic group, they are likely to experience lower self-esteem and self confidence, and they may have difficulty in finding meaning in their lives. (Martinez & Dukes, 1997, p. 504)

Martinez and Dukes (1997) found that a stronger, more coherent ethnic identity is related to positive mental health. Ethnic identity has been related to coping ability, mastery, self-esteem, and optimism (Roberts et al., 1999).

One minority group in particular need of further ethnic identity research is American Indians. The history of American Indians in the U.S. has been a traumatic story of genocide and cultural annihilation. Following the development of the reservation system, early government policy attempted to deal with the "Indian Problem" by forcing assimilation into European-American culture, a tactic referred to by some as racial genocide (Choney, Berryhill-Paapke, & Robbins, 1995). Policies included encouragement and incentives to adopt dominant culture values and lifestyles, as well as forced relocation from traditional Native lands into cities. For nearly two generations, mandatory education of Native children involved placing American Indian children in boarding schools, away from family, homeland, and cultural influences. Typically, boarding school officials forbade the use of native language and the practice of cultural traditions or behaviors. Boarding school education was not only traumatic for children, but also deprived them of appropriate models for parenting and transmission of cultural values and traditions. Many protective elements of traditional culture may have been lost in some families over the generations. Considering this history, it is a symbol of the resilience of the American Indian peoples of this country that they do yet exist as a separate and distinct people.

In addition to historical trauma, there is evidence of the impact of continued prejudice and discrimination from the majority culture against American Indians. Despite the increased awareness and the blending of cultures in the United States, stereotypes and prejudice continue to keep American Indians in a disadvantaged state, as well as affecting the development of personal identity of adolescent and adult American Indians. In studies contrasting students' and teachers' perceptions of student behaviors and family

circumstances, striking and disturbing differences emerged between White teachers' and American Indian students' perceptions. While Caucasian and Native American children self-reported similar levels of externalizing behaviors, Caucasian teachers evaluated Indian students as having much higher levels of externalizing disorders than White children (Fisher, Storck, & Bacon, 1999). Furthermore, high school teachers on the Navajo Indian reservation were found to greatly overestimate the poverty and deprivation of their students and to severely underestimate the education levels of the parents of the American Indian students, as well as parents' involvement in their students' education (Shields, 1999). Finally, Beiser, Sack, Manson, Redshirt, and Dion (1998) concluded that "non-Native teachers perceive more depression and conduct disorder in Native students than in White students from the same school" (p. 465). Teachers perceived American Indian children's actions as problematic, even though the American Indian children and their parents did not view these children to have mental health needs. These findings suggest that teachers, and possibly the majority culture in general, maintain powerfully stigmatized views of American Indian children.

Experiences such as those reported above may explain the dramatic mental health and psychosocial adjustment disparities observed among American Indian adolescents and adults. Research has shown that American Indian children are resilient to mental health problems, despite living with increased risk of parental poverty and alcoholism (Samaan, 2000). However, with the onset of adolescence, rates of drug and alcohol abuse, depression, school withdrawal, and suicide for Native American youth dramatically increase (Yates, 1987). Misperceptions and prejudices seem to be an aversive factor in the developmental process experienced by American Indian adolescents. Perhaps at

younger ages, limited exposure to the majority culture minimizes risk for mental health problems and other negative outcomes. As American Indian children interact more with the majority culture, especially through school, they are more likely to encounter and experience situations where others misperceive, stereotype, or enact prejudice against them. These are experiences beyond their control and may lead to feelings of learned helplessness and depression (Hammerschlag, 1982). It has been reported that as minority students “become aware of the fact that teachers and other adults have negative stereotypes, the awareness increases anxiety, which in turn may lead them to disidentify with the school context in order to protect their self-esteem” (Eccles & Roeser, 1999, p. 514).

One potential consequence of the history of forced assimilation and continuing discrimination and prejudice toward American Indians has been the loss of a coherent, strong ethnic identity for some American Indians. Deyhle (1998) posited that Navajo youth are in an especially difficult situation with regard to identity development, stating that “the traditional world of their grandparents no longer exists, and, due to racism in the community, the Anglo world is not available to them” (p. 3). American Indian youth may internalize negative beliefs of the majority culture, which in turn impact healthy development of ethnic identity. Most theories of ethnic identity suggest that at the beginning phases of identity development, minority individuals hold negative views of themselves as minorities and/or towards their ethnic group (Cross, 1995). However, this view may or may not be true for American Indians raised on a reservation. Cross’s (1995) identity model does not take into account the fact that many American Indians are invested in and have positive feelings towards their group and themselves as members of

that group. Shields (1999) found that 87% of Navajo adolescents reported that Navajo traditions, language, and customs were important enough that they want to try to pass them on to their own children. However, Pellebon (2000) reported that socioeconomic status and attending a school where the adolescent is of the racial majority were not significantly associated with ethnic identity development of minorities. For American Indian adolescents this may suggest that living in an Indian community would not necessarily be helpful in developing a healthy ethnic identity.

Further research clarifying the development and function of ethnic identity and acculturation of American Indian youth is necessary. Commitment to ethnic identity in adolescent American Indians (manifested as either a strong bicultural identity or a strong ethnic pride) has been described as a protective factor against risk behaviors such as drug use (Kulis, Napoli, & Marsiglia, 2002). However, American Indian adolescents have been found to have the lowest ethnic identity scores when compared to White, African American, Hispanic, and Asian adolescents (Martinez & Dukes, 1997). Given these findings, developing a more comprehensive understanding of ethnic identity development for American Indian people, as well as further exploring the impact of acculturation on American Indians' lives, may be helpful first steps in better understanding the alarmingly high rates of poverty, depression, alcoholism, and other social problems evident in many American Indian communities (Manson, 2000). Both ethnic identity and acculturation are theoretically associated with risk and protective factors in American Indian communities; however, current research has not yet fully examined the specific contributions of these two distinct constructs to various aspects of psycho/social functioning. The current study addressed this gap in the literature by utilizing theoretically driven measures of

acculturation and ethnic identity to assess associations among these important constructs and American Indian adolescent adjustment in various domains. Specifically, associations were examined among three different measures, acculturation, ethnic identity, and cultural identity, and psycho/social outcomes in three important domains: school functioning (school belonging and school performance), psychological and behavioral functioning (self-esteem, depression, substance use, and delinquent behaviors), and general social functioning. It was predicted that higher levels of ethnic affiliation would be related to more positive psycho/social outcomes. It was also hypothesized that majority acculturation status or bicultural status may be related to more positive school outcomes. Alternatively, marginal acculturation status was predicted to yield more negative psycho/social outcomes particularly in the outcome area of depression.

REVIEW OF THE LITERATURE

The following review of literature explores the current theory and measurement of ethnic identity and acculturation. Many models of ethnic identity have been developed across different ethnic groups and these models and modes of measurement will be reviewed. Acculturation will also be reviewed, focusing on models of acculturation and the progression from unilateral models to current multilinear and bicultural conceptualizations of acculturation. The last section of this literature review examines research assessing associations among ethnic identity or acculturation and developmental outcomes, such as academic success, substance use, and self-esteem.

Models of Ethnic Identity

Various models describing ethnic identity development for specific minority populations, as well as multicultural models of ethnic identity have been proposed. Two general types of models have been presented. The first and most prevalent type of model examines ethnic identity as a developmental process, outlining stages of ethnic identity development. The second type of identity model uses descriptive methodology to classify ethnic identity status. These models do not specify the processes involved in the development of ethnic identity; rather they present identity types or classifications and posit that individuals fit into identity status categories. Individuals may move among identity status categories over time, but classification models do not presuppose a universal sequence of development. Because both types of identity models are important in developing a more complete view of what ethnic identity is, both types of models will

be reviewed. Following a general review of ethnic identity models, applicability of existing models to American Indian ethnic identity and limitations of the literature with regard to American Indians will be discussed.

Process or Stage Models of Ethnic Identity

Several stage models of ethnic identity development have been reported in the literature over the past several decades. Most models have been developed in relation to a particular minority culture, but have several commonalities. First, most stage models are organized around minority individuals' views of their own culture relative to the majority culture. Periods of rejection of one's own culture and rejection of the majority culture, often brought on by significant events or experiences with the dominant culture, mark the boundaries of the stages of identity development. Further, most stage models posit a culminating stage during which the minority individual develops a balanced multicultural perspective characterized by a strong, positive view of their own ethnicity and a "working through" of resentment and anger toward the majority culture.

African American Identity Models

Cross (1971) was among the first to delineate a model to conceptualize African American ethnic identity development. In this original theory, Cross conceptualized that Black Americans go through a stage process as they progress toward a coherent and fulfilling ethnic identity. Cross's original stage model began with the *pre-encounter stage*, in which a Black person is described as having a degree of hatred towards the self and/or his or her own ethnic group. The pre-encounter stage is accompanied by a desire

to assimilate in to the majority White culture (Cross, 1995; Sue & Sue, 2003). During this time an ethnic minority has either not subjectively examined what his or her ethnicity means, or has decided that ethnicity is a negative aspect of life and attempts to distance him- or herself from it. In the second stage, the *encounter stage*, the individual encounters or has an experience which causes him/her to question or desire change in previous attitudes and behaviors. This could happen with an experience of blatant discrimination or developing a strong affiliation with one's own ethnic group. If the encounter is strong enough, it will push the individual to shift his/her previously unexamined worldview. At this point, the third stage of *immersion-emersion* is entered. During this stage the Black American individual will turn away from the majority culture and immerse him/herself in African American issues, history, and culture. Feelings of anger and hatred towards those who perpetrated and continue to perpetrate injustice towards the Black community are often present at this time. As the individual progresses into the emersion phase of the stage, previous feelings of guilt and anger towards the White society will decrease and a sense of Black pride will begin to develop. At this point, however, internalization of positive attitudes towards African American culture may not yet be strong. The *internalization-commitment* stage develops as the individual accepts his/her Blackness, as well as accepting the majority culture and begins to move toward a bicultural or multicultural life. As this stage progresses to commitment, it is expressed not only in words, but actions that support equality, justice, and civil rights (Sue & Sue). The Cross model was a template along with other Black identity models for what became "nigrescence or the psychology of becoming Black" (Cross, 1995, p. 94).

This theory also influenced other minority identity models, which were virtually in an undeveloped stage at that time.

Although research had demonstrated considerable support for Cross's original Black Identity Model, it had also highlighted areas where the model was in need of revision (Cross, 1995). Although essentially the same, Cross's revised model acknowledged that not all Black people fostered negative views towards their ethnic group during the pre-encounter stage; instead, some may not consider skin color as an important aspect of their lives. This difference did not alter the following stages for the individual that was progressing in the nigrescence process (Cross; Sue & Sue, 2003). Cross also noted that some children could be raised to have a full understanding and appreciation of their Blackness, thus having little or no need for the process of nigrescence. Finally, Cross also recognized that the progression from pre-encounter to internalization is not necessarily fluid, and regression or stopping before internalization is reached could well be a part of the process for some African Americans.

Asian-American Ethnic Identity

Kim delineated a sequential, 5-stage model of Asian-American ethnic identity development (Sue & Sue, 2003). Stage one is *ethnic awareness*, in which the process of enculturation is started and the degree of which is dependent upon the socialization influences of the caretaker. The degree to which the parents value their culture will influence the attitudes formed at this stage. Stage two is *White identification* stage, which begins as the child enters school and differences are realized. To escape negative influences of the dominant culture that effect self-esteem and identity, the Asian-

American child will seek to identify with the White society. Stage three is the *awaking to social/political consciousness* stage, abandoning of White identification, which also often is correlated with political awareness. An understanding that groups are oppressed by elements in the dominant society is a marker of this stage. The fourth stage is a *redirections* stage, which means a returning to, or reconnection to Asian heritage and culture. In this stage anger is felt towards White culture because of realized negative effects of dominant culture influence. The last stage is the *incorporation* stage, which is the highest level of ethnic identity development. A positive ethnic identity and multicultural respect for other groups is achieved. White culture ceases to be a problematic issue (Sue & Sue).

Hispanic Ethnic Identity

A major model of Hispanic ethnic identity was developed by Ruiz in 1990 (cited in Casas & Pytluk, 1995; Sue & Sue, 2003). This model also consists of five stages that include views that would be specific for Chicano, Mexican American, and Latino populations. The causal stage describes a period during which, according to Sue and Sue,

...messages of injunctions from the environment of significant others either affirm, ignore, negate, or denigrate the ethnic heritage of the person. Affirmation about one's ethnic identity is lacking, and the person may experience traumatic or humiliating experiences related to ethnicity. (p. 213)

Second, during the *cognitive stage* three false beliefs are incorporated into the individual's belief system: (a) ethnic group is associated with poverty and prejudice; (b) the only means to escape poverty and prejudice is to assimilate into the dominate culture, and (c) success is only possible if the individual assimilates. In the third *consequence*

stage, ethnic identity is fragmented. The individual experiences ethnic conflicts and may feel ashamed of ethnic markers. The individual may want to distance him/herself from ethnicity and culture. The *working thru stage* is the fourth stage of Hispanic identity development. Sue and Sue (2003), again, found the following:

Two major dynamics distinguish this stage. First, the person becomes increasingly unable to cope with the psychological distress of ethnic identity conflict. Second, the person can no longer be a pretender by identifying with an alien ethnic identity. The person is propelled to reclaim and reintegrate disowned ethnic identity fragments (p. 214).

Finally, the *successful resolution stage* marks “greater acceptance of self, culture, and ethnicity, an improvement in self-esteem, and a sense that ethnic identity represents a positive and a success-promotion resource” (Casas & Pytluk, 1995 p. 155). While Casas and Pytluk recommend this model to practitioners working with Hispanic clients in therapy, they acknowledge that empirical validation of the model is necessary.

American Indian Ethnic Identity

The only stage model specifically for American Indian identity development that was found in the literature was Walters’ (1999) Urban American Indian Identity Attitude Model (UAI). In this model, urban American Indian identity attitudes are developed through the person’s cognitive and affective experiences of the self as an American Indian, other American Indians (group identity), and the environment (urban context). The UAI model progresses through four stages: Internalization, Marginalization, Externalization, and Actualization (Walters). These stages are similar to the stages of

previously reviewed models of ethnic identity. Internalization is associated with negative internalized beliefs towards a person's American Indian group and overvaluing of the dominant culture. Marginalization is defined by the rejecting of the dominant culture and the realization that the American Indian individual falls between Native and non-Native worlds. Externalization is the discarding of colonizing attitudes and the negative internalized stereotypes about the self as an American Indian. In the final stage, by achieving an integrated identity and obtaining healthy psychologically protective attitudes, which combat the continued influence of dominant culture, actualization will be achieved (Walters).

Walters (1999) added five identity attitudes to the model that are embedded within the four stages of progression. Those attitudes are *political* (e.g., taking a stand on Indian land and treaty rights), *ethnic* (sense of shared heritage), *cultural* (knowledge of tribal customs and values), *racial* (blood quantum), and *spiritual* (sacred lands/sites and religious freedom). These five identity characteristics give the model more complexity, which distinguishes it from general multigroup identity measures, making it uniquely adapted for American Indian populations. One caution of using this model is that it was developed particularly to apply to urban American Indian identity development. Urban American Indians are distanced from their traditional lands and cultural influences, while still experiencing the pressure of negative colonizing stereotypes. Rural American Indians may be more likely to live on or near reservation communities and thus, may be more likely to possess a strong sense of *specific* tribal identity, which would make them experience identity development in a qualitatively different way.

Classification Models of Ethnic Identity

Classification models of ethnic identity yield identity status categories that provide descriptive information about current cultural attitudes and behaviors, as well as positive and negative feelings toward one's ethnic group. In essence, classification models provide a "snapshot" of cultural identity at the time of assessment. Most classification models do not assume cultural identity status to be a static property of the individual. In fact, following significant relationships, interactions, events, or with the development of new knowledge and experiences, minority individuals might be expected to move among categories across their lifetimes. Identity statuses described in classification models often correspond loosely with the descriptions of stages in many stage models of ethnic identity. However, unlike stage or process models, classification models do not necessarily presuppose a sequential path of development. Individuals may move back and forth among classifications, may stay in one classification throughout development, and may "skip" certain classifications all together.

Only Asian groups were specifically represented in the literature describing classification models. Sue and Sue (2003) described an early model of Chinese identity, which they developed in 1971. The model conceptualized three categories: (a) traditionalist--a person who values and maintains conventional Chinese customs; (b) marginal person--a person who rejects conventional Chinese customs and may internalize the dominant society's negative views towards minority groups; and (c) Asian American --one who is becoming increasingly bicultural. A similar model was developed by Kitano (1982) describing Japanese cultural identity. These models were criticized in that they

failed to provide a theoretical rationale, did not account for the complexity of identity development, and were too specific to apply broadly to other groups of Asian peoples (Sue & Sue). Others have argued that viewing identity among Asian or other traditionally interdependent cultures through the lens of Western ethnic identity models is a mistake, suggesting that existing ethnic identity theories may not apply because interdependent cultures have values that are in conflict with Western independent cultural ideals (Yeh & Hwang, 2000).

Multigroup Ethnic Identity Models

Two other classification models of ethnic identity (Oetting & Beauvais, 1991; Phinney, 1989) were developed to apply more broadly to various ethnic groups. Phinney's model is based on Erikson's (1968) work on adolescent identity development and ego identity, which theorized that developing a sense of identity was the primary task of adolescence (Spencer & Markstrom-Adams, 1990). Erikson's identity theory was operationalized by Marcia (1980) for the purpose of identity assessment or measurement. Marcia proposed two orthogonal dimensions in conceptualizing identity. The first dimension represents the extent to which the individual has explored various options and possibilities for identity. With regard to ethnic identity development, exploration might involve learning about one's ethnic history, becoming involved in traditional cultural activities, or joining groups and establishing relationships with members of one's own ethnic group. The other dimension of identity, commitment, assesses the degree to which the individual has adopted or endorses aspects of a specific identity. Commitment for

ethnic identity might be represented by ethnic pride or political involvement in civil rights or related issues.

Based on the four quadrants formed by crossing the two orthogonal dimensions of commitment and exploration, Marcia (1980) described four identity statuses. Diffuse identity status is characterized by low levels of both exploration and commitment. Individuals at this level have not examined what their ethnicity means to them, nor have they committed to an ethnic identity. Individuals classified with foreclosed identity status are those who have participated in little or no exploration but have strongly committed to a specific identity. With regard to ethnic identity, individuals who have not considered their ethnicity but fully endorse a majority culture ideal might be categorized as foreclosed. Those who are described as in moratorium identity status are those who are high on exploration and low on commitment (i.e., are actively "trying on" different identities). Finally, high levels of both commitment and exploration characterize achieved identity status. Those who have fully considered the meaning of their ethnicity and have developed a coherent strong sense of ethnic identity would be labeled with achieved status. Phinney used this conceptualization in the development of her model of ethnic identity (Phinney, 1989).

Phinney's (1989) model shares basic tenets with the stage models proposed by Cross and others (e.g., Cross, 1995). While the classification scheme proposed by Phinney does not assume a specific sequence of development, the descriptions of several statuses correspond to descriptions of stages. For example, the diffuse status, in which the minority individual may have adopted majority views towards his culture and does not question his ethnicity, and foreclosure status, in which the child may have adopted his

parents' attitudes towards his ethnicity and thus is not questioning it as well, could be seen as similar to the pre-encounter stage of Cross's model. In both models, the minority individual is not exploring or seeking to find out more about his ethnicity (Phinney). The moratorium status is similar to the immersion stage of Cross's model. In both, the individual is motivated to explore and increase ethnic knowledge. Phinney's achieved status is described as "evidence of exploration, accompanied by a clear, secure understanding and acceptance of one's own ethnicity" (Phinney, p. 38), which is similar to Cross's internalization stage of Black self-acceptance without conflict between old and new attitudes (Sue & Sue, 2003).

Phinney has used this model to create a multi-ethnic identity measure for adolescents that has been used in studies with many different minority groups, including Asian, Hispanic, American Indian, and African American (Lysne & Levy, 1997; Martinez & Dukes, 1997; Pellebon, 2000; Phinney, 1989, 1992). When this dimensional approach to understanding ethnic identity is utilized, there is convincing evidence that the four status classification system applies well to the identity development of minority youth living within the majority culture.

A different multigroup identity model and scale was developed by Oetting and Beauvais (1991). Oetting and Beauvais found that current methods of measuring ethnic identification were highly related to acculturation and did not meet the needs of their studies. They developed an orthogonal model of cultural identification. The strength of the orthogonal model, according to Oetting and Beauvais (1991), is that

identification with any culture is essentially independent of identification with any other culture. Instead of two cultures being placed at opposite ends of a single dimension or single line...the orthogonal identification

model indicates that any pattern and combination of cultural identification can exist and that any movement or change is possible. (p. 662)

Previous models had viewed acculturation as a continuum between cultures, with the minority individual in transition between the two (Choney et al., 1995). Other popular identity models, such as the nigrescence model (Cross, 1995), detailed a possible transition between cultures that may take place, going away from one (White majority culture) towards another (individual's ethnic group culture). After ethnic identity has been achieved, a more bicultural life can be pursued. A transitional model would have difficulty identifying youth that are truly a part of both cultures. For example, an American Indian adolescent that was raised in a traditional manner, but still attended school and spoke English, would have already been enculturated (the process in which one learns ethnic and cultural heritage of one's own ethnic group), thereby a transitional process would not be needed.

Summary of Models

Similar experiences and processes may be experienced by many minority individuals within the United States. Affiliation and self-identification of ethnic minorities appear to be vital to having a strong ethnic identity (Phinney, 1996). The reviewed ethnic identity models seem to also be generally applicable to the development of American Indian ethnic identity. It is likely that many American Indians go through stages similar to ones outlined by Cross and others as they try to develop a sense of their ethnic identity in a world dominated by the values of White culture. The progression from specific ethnic identity models to multigroup models, which capitalize on group commonalities, seems to have been necessary so that a research foundation for American

Indian ethnic identity development could be established. However, despite commonalities, each ethnic group retains traditional cultural and spiritual values that make each one unique and different, necessitating slightly different models of ethnic identity development. As research progresses in this area, ethnic identity models can be improved to be more useful to each cultural group. Sensitivity to cultural specificity will enhance efforts to meet the needs of counselors and researchers, so that each ethnic minority individual can be understood in a clear and useful way.

This can be clearly seen when working with American Indians. Of ethnic minority populations in the United States, American Indians have the longest history with colonization by the dominant culture. Balancing American Indian and White cultures is an inescapable part of the lives of American Indians today. The need to understand the impact of ethnic identity development in this population would be a starting point for understanding problems or protective factors that are related to ethnic identity. An additional confounding factor is the diversity found among American Indian tribal groups. There are literally hundreds of tribal groups (Choney et al., 1995) with unique cultural values and behaviors. While it is important to capitalize on similarities, there is also a need to focus on differences among tribes, so that a full and complete picture of how ethnic identity influences the lives of American Indians can emerge.

It has been found that ethnic identity alone may not be predictive of some of the major risk factors faced by American Indians. For example, cultural identification by itself has not been found to reliably predict drug use (Oetting & Beauvais, 1991). Thus, culture and identity need to be examined using a combination of measures and constructs. Acculturation theories and measures have also attempted to illuminate psychosocial

problems that American Indians face (Garrett & Pichette, 2000). Assessing a range of acculturation and cultural identity variables may provide a more comprehensive view of the importance of cultural development for American Indian individuals. The following section will review literature examining acculturation theory and measures and discuss how this literature may be applied to American Indian research.

Acculturation Theory and Measurement

One of the early conceptualizations of acculturation, noted by Berry (1980) in his review of acculturation theory, was defined by the Social Science Research Council in 1954 as

...culture change that is initiated by the conjunction of two or more autonomous cultural systems. Acculturative change may be the consequence of direct cultural transmission; it may be derived from noncultural causes, such as ecological or demographic modifications induced by an impinging culture; it may be delayed, as with internal adjustments following upon the acceptance of alien traits or patterns; or it may be reactive adaptation of traditional modes of life. Its dynamics can be seen as the selective adaptation of value systems, the processes of integration and differentiation, the generation of developmental sequences, and the operation of role determinants and personality factors. (p. 10)

Based on this definition, Berry discussed the central features of the acculturation process. Of particular importance is the nature of the contact between the two conjoining cultures. Although contact between cultures can happen in many ways, often the contact is characterized by domination of one group by another. This suggests that a relationship of conflict, resistance, and aggression may often be involved in the acculturation process (Berry, 1980). The notion of choice or intention when conceptualizing acculturation is one that has been overlooked, but nonetheless would have a direct effect on the process

of acculturation by the dominated group (Padilla, 1980). An unequal transfer of culture favoring the dominating group would be predicted, such that the majority of change would be forced upon the dominated people (Berry). For the last several centuries, the history of the Native American peoples in the Western hemisphere has been one of forced assimilation and domination by descendants of European cultures aimed at aggressively expanding control over land and resources (Garrett & Pichette, 2000).

The concept of acculturation has been a target of study for many decades.

Although there is a wide range of literature from many different fields, a paramount unifying definition is yet to be found. Padilla (1980) stated:

There continues to be a gap between the accumulation of empirical materials on acculturation and the development of theoretical models to order and codify the central concepts involved in the process of change resulting from cultural contact. (p. 1)

Many researchers over the recent years have commented on the lack of usefulness of an ambiguously or equivocally defined concept of acculturation (Choney et al., 1995; Gutmann, 1999; Magana et al., 1996; Moyerman & Forman, 1992; Padilla, 1980). Early acculturation models were generally unidirectional in that one moved from one culture, leaving it behind, towards another. These were thought to be inherently ethnocentric, implying that one was moving towards a superior culture (Berry, 1980; Choney et al., 1995). Magana and colleagues (1996) noted inconsistencies and lack of clarity in the dimensions of acculturation, contending that a bidimensional scoring method is more useful in acculturation studies. Although inadequacies are noted in the literature, often the researchers give direction to produce more clear and useful results, thus contributing to the overall body of knowledge.

The course of acculturation has been conceptualized in three broad stages (Berry, 1980). The first stage is described as the *contact* stage; if cultural contact is not made then acculturation will not take place. The second stage involves *conflict* between the meeting cultures. If no inherent conflict exists in the value systems, traditions, language, or mores of the meeting cultures, then little or no cultural change would be necessitated on the part of either culture. Given that people are resistant to give up cultural traditions, it is the conflict that initiates movement toward the acculturation process. The third stage is what Berry describes as the *accommodation* stage. It is during this stage that cultures in contact seek to diminish the conflict (Berry). This can happen in many ways and provides the substance for the many levels of acculturation that can be observed in minority groups.

The acculturative process has historically been conceptualized as a unidirectional process with a dichotomous outcome. The more one progresses toward the dominant society, the more one forsakes the former society (Choney et al. 1995; Oetting, Donnermeyer, Trimble, & Beavais, 1998; Olmedo, 1980). Although this was defined in early models as acculturation, assimilation into the dominant society was thought to be inevitable by early researchers and policy makers (Choney et al.; Gutmann, 1999). Oetting, Swaim, and Ciarella (1998) described early models of cultural identification as “value laden and ethnocentric” (p. 132). This has also been equated to a deficit model, such that the more the minority culture differs from the majority, the more problematic and deviant that minority culture is seen to be by the dominant society.

New measures of acculturation and ethnic identity have been developed over the last few decades, striving toward culturally sensitive, multidimensional assessment

(Garrett & Pichette, 2000; Padilla, 1980; Zimmerman et al., 1998). Padilla delineated a model of acculturation, noting that “the constructs of the model--cultural awareness and ethnic loyalty--are essential in any analysis of acculturation” (p. 50). The construct of cultural awareness is defined as the knowledge of specific cultural material such as language, art, foods, and values of the persons’ own cultural group as well as the dominant culture. The construct of ethnic loyalty is the preference for one culture over the other. This preference includes attitudes as well as behaviors related to one’s ethnicity (Padilla). Other modern conceptualizations of acculturation include variations on the basic constructs presented by Padilla (Garrett & Pichette; Oetting, Swaim, et al., 1998; Phinney, 1992; Zimmerman et al.).

Many models of acculturation place minority individuals at varying levels of acculturation, typically including traditional, bicultural, assimilated and marginal, or slight variations of these (Choney et al., 1995; Garrett & Pichette; 2000; Kim & Abreu, 2001). Traditional status would imply that one affiliates only with traditional beliefs and behaviors. A bicultural individual is one who is comfortable moving from one culture to the other, often speaking both languages fluently. Assimilated or acculturated status implies that the individual has fully adopted the culture of the dominant society and has few ties with traditional practices. The marginal individual is the individual who has low affiliation with all cultures, not really feeling that he or she is a part of either. The marginalized individual is hypothesized to experience the most psychosocial difficulty because no strong cultural identity to either culture is present (Kim & Abreu).

Acculturation stress is defined as a negative byproduct of the acculturation process and has been linked to increased prevalence of mental health problems (Berry,

1980). Acculturation stress is experienced when an individual feels they need to reject one group of cultural norms in order to adapt to another group of cultural norms. Yates asserts that stress is greater when the “cultural distance between two groups is great and the insistence on change is strong” (Yates, 1987, p. 1137). The experience of being torn between two cultural worlds as minority adolescents are struggling to forge a coherent sense of self or identity may result in distress, anxiety, frustration, and psychological discomfort (Choney et al., 1995). It is likely that many minority individuals experience such acculturation stress to varying degrees. Acculturation, assimilation, and integration are all experiences and challenges that minority youth will begin to face as interaction with the majority culture increases.

Outcomes Associated with Acculturation and Cultural Identity

Literature investigating outcome variables related to ethnic identity and acculturation is limited, yet diverse in scope. This section will examine the usefulness of studying ethnic identity and acculturative processes in minority individuals, addressing the question of what kinds of important indicators of psychosocial functioning ethnic identity research can predict. The literature examines relationships among acculturation or cultural identity and school belonging, academic success, self-esteem, substance use, and an array of health-related outcomes. The following review summarizes published articles investigating adjustment for U.S. born minorities, specifically Mexican/Latino Americans, American Indians, and African Americans. The literature suggests that acculturative and identity styles are related to school adjustment and self-esteem, although, there are conflicting findings in this area. For reasons that are not yet fully

understood, studies examining the associations among acculturation, cultural identity, and substance abuse are mixed (Oetting & Beauvais, 1991).

School Adjustment/Achievement

Few studies have considered the associations among cultural identity, acculturation, and school variables, such as school belonging and academic achievement. In a sample of American Indian youth, Oetting and Beauvais (1991) found that strong cultural identification (either Anglo or Native American) was related to better school adjustment. Some researchers have found that greater acculturation toward main stream culture among Latino youth is related to higher academic achievement and educational aspirations such as future college attendance (Lopez, Stewart, & Garcia-Vazquez, 2002; Ramos & Sanchez, 1995). However, Vazquez and Garcia-Vazquez (1999) found that level of acculturation did not impact university success for Latino students. All participants in their study were found to be bicultural or acculturated, so conclusions regarding academic success and aspirations for more traditional individuals were precluded. The authors posited that socioeconomic status may be more predictive of school success than specific cultural factors and it was suggested that the admissions criteria for the university under study might have contributed to a problematically homogenous sample. Vazquez and Garcia-Vazquez concluded that perhaps students needed to be acculturated at least to the bicultural level in order to succeed in mainstream higher education settings.

One study examining the relationship between school achievement and ethnic identity among Black students found that those with higher levels of proactive Afro-

centricity or ethnic identity demonstrated higher levels of achievement. In contrast, Black students with high levels of Euro-centricity were found to have lower achievement scores (Spencer, Noll, Stoltzfus, & Harplani, 2001). Thus, Spencer and colleagues challenged what they described as a commonly held belief that “acting White” is the most adaptive strategy for Black youth in regards to school achievement. As one part of a larger study, it was found that ethnicity did not interact with academic status in a group of White Americans, Mexican Americans, and Native Americans, although ethnic identity was not specifically measured in this study (Beauvais, Chavez, Oetting, Deffenbacher, & Cronell, 1996).

In summary, there are surprisingly few empirical studies with U.S. born minority youth that address the associations among school success and cultural variables. The literature points to lack of clarity in this matter and may suggest that racial differences impact the ways in which ethnic identification and school variables interact.

Substance Use

Researchers have examined the associations among cultural identity, acculturation, and substance use for Latino, African American, American Indian, and mixed minority samples. Findings have been inconsistent and no clear patterns of association have emerged (Oetting, Donnermeyer, et al., 1998).

Some researchers have found support for the notion that strong cultural identity serves as a protective factor against substance use problems. For example, Klonoff and Landrine (1999) examined substance abuse among Black Americans, concluding that immersion in Black tradition was related to abstaining from alcohol consumption.

Further, those who did not abstain from drinking alcohol demonstrated high levels of acculturation toward White, mainstream values. Kulis and colleagues (2002) noted that variations in substance abuse outcomes could differ by geographic region. They surveyed 434 American Indian middle school students from over 30 different schools in a large southwestern city. They concluded, “students with a stronger sense of ethnic pride adhered more strongly to antidrug norms for alcohol, cigarettes, and marijuana” (Kulis et al., p.108). Also, students who identified with the ethnic labels “Mexican and American Indian” or “White and American Indian” showed higher antidrug norms than those who indicated that they were American Indian alone. These findings were independent of ethnic identity strength. Although these findings were significant, the authors note that the explained variance from this study was modest (14%).

Other studies have yielded negative or more mixed findings regarding the association between ethnic identity and substance use. A recent study examined ethnic identity in a mixed group of minority students and Anglo students (James, Kim, & Armijo, 2000). These researchers found that high levels of cultural identity, measured with a structured interview, were associated with higher levels of drug use. In other work, Strunin and Demissie (2001) found “no statistically significant association between cultural identification and alcohol use among either African American or Haitian adolescents” (p. 2035).

Oetting and Beauvais (1991) used an orthogonal model of ethnic identification, which contends that an individual can identify with multiple cultures. These researchers concluded that sense of ethnic identity for Hispanic and Native Americans had little or no relationship to drug use. In the same report, Oetting and Beauvais recounted multiple

studies they have conducted that examined the effects of a strong Anglo identification in two Hispanic communities. In one community, Anglo identification was associated with less drug use, while contrary findings emerged in the other community. One community was much more directly related to early Spanish immigrants. The other community was more directly related to Mexican immigrants. These differences were thought to point to differences in the norms and values of each community (Oetting & Beauvais).

Other studies looking at enculturation, which encompasses ethnic identity and ethnic affinity, found similar results. The hypothesized theory that enculturation would serve as a protective factor against risk behaviors, specifically drug use, with Native Americans was not supported (Zimmerman et al., 1998). Some have suggested that residual effects of boarding schools (i.e., drug behaviors learned while away from home) were brought back to reservations, and this phenomenon is not captured by current measures of ethnic identity (Oetting & Beauvais, 1991).

In summary, the literature appears to be inconclusive in its attempts to associate ethnic identity with alcohol and drug abuse, leading some to seek alternative explanations for the development of drug use. Oetting, Donnermeyer, et al. (1998) proposed primary socialization theory, in which parents, the school, and the peer network serve as the primary sources of socialization into or against delinquent behaviors, including drug use. During adolescence, peers emerge as the primary socialization source. Thus, a minority youth may maintain strong feelings of ethnic identity at home but may hold to a different set of norms while with peers. A strong sense of ethnic identity may have some influence in drug use; however, this influence may be small relative to the influence of peers and other factors during adolescence.

Psychological Health Outcomes

Another measure of adjustment related to acculturation and ethnic identity is psychological health. The main focus of these studies has been on predicting depressive symptoms, feelings of self-worth, and identity. In an examination of the association between ethnic identity and depression for Latino youth, Carvajal, Hanson, Romero, and Coyle (2002) identified four groups of adolescents:

- (1) Bicultural (median or above in both the Latino and Other Group orientation scales);
- (2) Latino-focused (median or above in the Latino orientation scale only);
- (3) Other-focused (median or above in Other Group orientation scale only);
- and (4) Marginalized (below the median in both cultural orientation scales). (p.184)

Based on this four group system for categorizing cultural identity, adolescent Latinos in the marginalized group reported more depressive symptoms than those of other groups. Additionally, those in the marginalized group were less optimistic, compared to those in the bicultural group. Martinez and Dukes (1997) found similar results in a large study involving over 12,000 students from diverse ethnic and racial backgrounds. Stronger ethnic identity predicted higher levels of self-esteem, self-confidence, and purpose in life. Interestingly, Whites and American Indians were found to have the lowest levels of ethnic identity, while Blacks and Hispanics had similarly higher levels of ethnic identity.

Conclusion

The literature suggests clear relationships among both acculturation and ethnic identity and mental health outcomes. Increased ethnic identity or increased cultural affiliations are generally correlated with more positive mental health outcomes. The

literature in other outcome areas is less clear. It has been argued that stronger cultural affiliation among African American youth is related to greater school success and other studies suggested that bicultural or acculturated American Indian and Latino youth had better school adjustment and achievement. In the area of substance abuse, there are conflicting findings. This may be related to many different factors, but clearly continued research in this area is needed. Further, an important outcome area that has been untouched in relation to American Indian ethnic identity and acculturation is social or relational functioning. Success in social and relationship domains has been theoretically and empirically linked to optimal development (Lee & Robbins, 1998; Muris, 2002). However, no studies were found investigating associations among American Indian relationship functioning and acculturation or ethnic identity.

Summary and Hypotheses

The previous review of literature outlined progress and limitations in ethnic identity and acculturation research. The paucity of literature on acculturation and ethnic identity is most evident in regards to American Indians. American Indians are severely disadvantaged and yet known interactions between risk and protective factors and cultural identification are clearly limited. The need for more research is clear, but further limitations must be addressed. Because of the diversity between tribal groups, it is not advisable to generalize research to all American Indian communities. Another limitation of the literature reviewed is the lack of standardized measures in some of the research studies conducted assessing ethnic identity and acculturation. This lack of standardization

could account for some of the variability in ethnic identity and acculturation outcome studies.

The current study examined outcomes associated with ethnic identity development and acculturative levels with Navajo adolescents. The Navajo Nation is one of the largest recognized tribes within the United States. By focusing on Navajo adolescents, generalizability to many other Navajo youth is conceivable, and may inform future research with other tribal groups. Outcomes encompassed a wide range of psychosocial behaviors in three important domains that are theoretically important or have been shown to be related to ethnic identity and acculturation: school functioning, psychological and behavioral functioning, and social functioning. An attempt to use culturally appropriate and standardized measures was a key part of this study.

The literature is limited and mixed regarding psychosocial outcomes in ethnic identity research, rendering hypotheses for the current study difficult to articulate. Consistent with research with other minority groups, it was expected that ethnic identity would emerge as a protective factor with regard to self-esteem, school belonging, and depression. While it is suggested that ethnic identity may have some relationship to substance use, inconsistencies in the literature make this hypothesis more speculative. The associations among ethnic identity and social functioning in important family and peer relationships are virtually unexplored in published literature regarding American Indians; while it was expected that cultural identity would be associated with relationship qualities, the nature of these associations was difficult to predict and may depend on other characteristics of the family and peer environment.

Based on previous research, it was hypothesized that acculturation would also be related to school belonging and depression. Specifically, Navajo adolescents that are not strongly associated with either the dominant culture or the Navajo culture are expected to be at greater risk in these areas. Finally, because of the mixed findings regarding associations between acculturation level and substance use specific hypotheses for this association were difficult.

METHODS

Participants

The participants for this study were 137 Navajo high school students from a small reservation border town. The high school is near the Navajo reservation; roughly 70% of the student body is Navajo with a large proportion of the Navajo students residing on the reservation. All Navajo high school students that were capable of reading the survey were invited to participate. Freshmen and sophomore students were especially encouraged to participate in this study so that a follow-up study could be done later in their high school careers. Participation was on a voluntary basis pending written approval to participate from parents of students that were under 18 years of age.

Sixty-five (47.4%) of the participating students were male and 70 (51.1%) of the students were female. Two students did not indicate gender. Participant age ranged from 14 to 19 (mean = 15.24; *SD* = .990). Of the participants, 61.3% reported being Navajo, 22.6% reported their ethnicity to be Navajo and another American Indian group, and 14.6% reported Navajo and another race (e.g., White, Mexican American, or African American). Two students did not report race. Of the religious affiliations reported by this sample, 26.3% reported LDS (Mormon), 9.5% protestant, 17.5% Native American Church, 15.3% traditional beliefs (not Native American Church), 1.5% other, and 27% reported having no religions affiliations; 2.9% did not provide their religious affiliation. Of the participants, 91% reported full time enrollment in school, 5.1% were enrolled part time, and 2.2% indicated that they were not currently enrolled in school. Two students did not answer this question. The majority of the students were in the 9th grade (62%),

with 28.5 % in 10th grade, 5.1 % in 11th grade, 2.9% in 12 grade, and 2 students not reporting a grade. The majority of the students in this sample reported that they were not currently employed (81%); 19 students or 13.9% did report being employed, and 5.1% did not answer the question. Educational goals of this sample of high school students were reported by 131 of the 137 students. Forty-three students (31.4%) aspired to obtain a college degree and an additional 14.6 % planned to obtain graduate degrees. Other reported educational goals were some college (7.3%), technical school (13.1%), military (12.4%), other (1.5%), and 10 students either did not respond or gave an invalid answer. The majority of the sample reported living with both parents (58%). Other home configurations were mother only (18.2%), father only (2.2%), mother and stepfather (8%), father and stepmother (0.7%), mother and boyfriend (2.2%), brother(s) and or sister(s) (0.7%), auntie (0.7%), male friend(s) (0.7%), grandmother (1.5%), nonrelated adults (1.5%), and 5.1% did not indicate a home structure. Parents' marital status was also reported by this sample; 64.3% of the sample reported that their parents were married to each other, 15.3% were divorced or separated, 11.7% were never married, 2.9% were widowed, 3.6% reported their parents' marital status as "other," and 5.1 % did not respond. The community that the participants lived in was reported as follows: 27.7% did not live on the reservation, 49.6% resided in established reservation towns, and 19% lived on reservation outside of town areas, 3.6% did not report a community type.

Procedure

Contact was made with a counselor at the high school who aided in getting administrative approval for this project. Freshman and sophomore students were notified of this study by the researcher in classes that contained the majority of students in these grades. Life Choices is one such class that all freshmen are required to take that was visited by the researcher. Other classes that were visited were biology and geography classes that are required courses generally taken in freshmen and sophomore years. All students were notified of the study via signs posted in the school as well as daily school announcements. Interested students were provided with consent forms during class or contacted the school counselor outside of class time. Written parent consent was obtained in the form of a letter that was sent home with the student indicating that he/she would be interested in participating (see Appendix A). If a parent did not wish their student to participate in the study, they were instructed to not sign the consent form.

The students completed a questionnaire that assessed ethnic identity, acculturation, and several outcome variables. The survey generally took 45 minutes to complete. At times agreed upon by the teacher, the student was sent to the library at which time the student researcher of this project administered the survey. As incentives, all students that returned their consent form signed by their parents or indicated that their parents did not want them to participate were given a candy bar. All students who returned a signed consent form and completed the survey were given a gift certificate to the local movie theater.

Measures

The measures chosen for this study represent the goals of the study. The acculturation and identity measures were designed to be used with minority populations and have been successfully used with American Indian youth. The outcome measures are a collection of standardized measures that have been successfully used in a wide range of adolescent studies. Copies of all measures can be found in the Appendix B.

Demographic Information

The demographic information questionnaire assessed race, age, gender, grade point average, educational goals, religious beliefs, geographic location (on/off reservation), household structure, and family socioeconomic status.

Revised (12-item) Multigroup Ethnic Identity Measure

The revised Multigroup Ethnic Identity Measure (MEIM) was based upon the original 14-item MEIM developed by Phinney (1992). This scale can be used as a global measure of ethnic identity strength and development in the form of two subscales. The 7-item affirmation/belonging subscale assesses commitment to one's ethnic identity and includes questions such as "I understand pretty well what my ethnic group means to me." The second subscale measures exploration of one's ethnic heritage. It is a 5-item scale that includes questions such as, "to learn more about my ethnic background, I have often talked to other people about my ethnic group." All questions are measured on a 4-point Likert-type scale (4 = strongly agree, 1 = strongly disagree). Averaging scores for items

for each scale yields continuous scores for affirmation/belonging and exploration. In addition, by creating dichotomous categories for each scale (high = mean score above the median; low = mean score below the median), students can be categorized using the four quadrant system outlined by Phinney (achieved, moratorium, foreclosed, and diffused). Roberts et al. (1999) found that the psychometric properties of the MEIM internal consistency were acceptable (Cronbach's alpha for 11 different ethnic groups ranged from .81 to .89). Reliability for the MEIM was reported to be .81 for high school students to .90 for college students. For this sample reliability alphas were .80 for affirmation/belonging and .63 for exploration.

Orthogonal Cultural Identification Scale

Oetting and Beauvais (1991) developed the Orthogonal Cultural Identification Scale (OCIS) to measure cultural identification of minority populations. It is based upon the theory that a person can identify with multiple cultures independent of each other and that identification with one does result in loss of identification of the other. It is a short measure containing six items asking questions regarding identification with multiple cultures. Each item is rated on a Likert-type scale from 1 to 4. Sample items include "Does your family live by or follow a White American or Anglo way of life? An American Indian way of life? A Mexican American way of life?," with respondents rating their affiliation with each of the three cultures. An average identification score for each culture is then calculated across the six items. If this calculated score is greater than 3, that would indicate high identification to that culture. A score lower than 2 would be low identification and 2-3 would be medium identification to the given culture. Crossing

the orthogonal dimensions for Native and White cultures categorizes individuals as traditional, bicultural, marginal, or acculturated. Oetting and Beauvais reported reliability above .80 using the first four questions. For this sample reliability alphas were .90 for American Indian culture and .91 for White culture. Identification with Mexican American culture was not relevant to the current study and this subscale was not used.

Native American Acculturation Scale

The Native American Acculturation Scale (NAAS) was specifically designed to be used with American Indians. It is a 20-item self-report questionnaire that assesses the degree of endorsement of Native American behaviors and traditions. Each question is multiple choice with options labeled 1-5. A score of 1 would indicate high affiliation with Native values and beliefs and 5 would indicate high acculturation to the dominant culture. Responses were reverse scored for the current study so that higher scores indicated more traditional endorsement. This scale is calculated by obtaining a mean score with possible scores ranging from 1 to 5. After reverse scoring, a mean score of 1 would indicate one was fully acculturated, a score of 3 would indicate bicultural behaviors, and a score of 5 would indicate traditional Native behaviors. Garrett and Pichette (2000) reported an alpha coefficient of .91 for the NAAS. This scale yielded a coefficient alpha for this sample of .75.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RSES) is a global measure of self-esteem designed to be used with adolescents. It is a 10-item self-report measure including both negatively and positively worded items. A Likert-type scale from 1 to 4 is used; negatively worded items are reverse scored so that higher scores indicate higher self-esteem. Sample questions include "I feel that I have a number of good qualities" and "On the whole, I am satisfied with myself." Rosenberg (1965) reported test-retest reliability of .85 and demonstrated good validity. Hagborg (1993) reported that the RSES is a widely used measure with acceptable reliability and validity. This scale obtained a reliability alpha for this sample of .81.

Child and Adolescent Social and Adaptive Functioning Scale

The Child and Adolescent Social and Adaptive Functioning Scale (CASAFS) was developed to measure general social adaptive functioning in adolescents. It is a 24-item self-report scale yielding four intercorrelated 6-item scales (school performance, peer relationships, family relationships, and home duties/self care) and a global total social functioning scale. Sample items include "I go out places with my friends" and "I get on well with my relatives." Items are rated on a 4-point Likert-type scale (1 = never, 2 = sometimes, 3 = often, and 4 = always). Family relationship items have a fifth category ("does not apply to me") for instances when the adolescent does not have a mother, siblings, and so forth, about whom to report. A higher total score indicates higher general social functioning, and higher subscale scores indicate higher functioning in each area.

Psychometric properties were reported to be adequate (Price, Spence, Sheffield, & Donovan, 2002); acceptable reliability was found (.81) in a test-retest analysis. Validity of the CASAFS was demonstrated by significant negative correlations ($r = -.34$) with the Beck Depression Inventory (Price et al.). As the original CASAFS was developed for use in Australia, minor wording changes were necessary to make the measure consistent with contemporary United States English. For example, the word “marks” was changed to “grades.” The global social functioning scale was used in the current study, yielding a Chronbach’s alpha for this sample of .79.

Psychological Sense of School Membership Scale

The Psychological Sense of School Membership Scale (PSSMS) is a measure of adolescent students’ feelings of belonging or psychological membership within their school environment. The PSSMS is an 18-item self-report scale that included an ethnically diverse sample in the development and validation process. A 5-point Likert scale is used for each question. Sample questions include “I can really be myself at this school” and “Sometimes I feel as if I don’t belong here” (reverse scored). An average of the item scores constitutes the PSSM final score with a possible range from 1 to 5. Reliability was reported to be acceptable (.81) and internal validity was supported (Goodenow, 1993). This scale yielded a reliability alpha for this sample of .88.

Center for Epidemiologic Studies Depression Scale

The Center for Epidemiologic Studies Depression Scale (CES-D) is a short self-report form that was designed to measure depressive symptoms in the general population (Radloff, 1977). Twenty items make up the CES-D, with each item asking how often in the last week the respondent has experienced different depressive symptoms. Items include "I did not feel like eating; my appetite was poor" and "I felt that people disliked me" and are answered on a 4-point scale in which 1 = Never, 2 = 1-2 days, 3 = 3-4 days, and 4 = 5-7 days. Radloff reported sound psychometric properties for the CES-D, with good measures of internal consistency (.85-.90) and moderate association with other measures of depression. This scale yielded a reliability alpha for this sample of .88.

Youth Self-Report: Delinquent Behavior Scale

The Youth Self-Report: Delinquent Behavior Scale (YSR-DBS) is one scale in a larger, widely used multiscale global assessment of adolescent psychosocial functioning (Achenbach, 1991). The YSR-DBS is an 11-item scale that assesses the frequency of delinquent behaviors. Adolescents rate themselves on items such as, "I lie or cheat" and "I cut classes or skip school," by marking 0 (not true), 1 (somewhat or sometimes true), or 2 (very true or often true). While raw summed scores are transformed to *t*-scores for clinical use, Achenbach recommends that researchers use the raw score to capture the full variability of the scale. Higher scores indicate high levels of delinquent behaviors. Achenbach reported adequate psychometric properties, with test-retest reliability of .72 and Cronbach's alpha of .76. This scale obtained a reliability alpha for this sample of .80.

Substance Use

Alcohol and drug use in the past month and related risk behaviors were also assessed. Drug use frequency was assessed using a 5-point scale with 1 indicating no drug use and 5 indicating more than 15 times in the past month. Five questions assessed the frequency of use of alcohol, marijuana, hallucinogens, stimulants, and inhalants. Total frequency scores were calculated as the sum of the five items, yielding a potential range from 5 (no drug use) to 25 (frequent use of all five substance categories). This scale has a reliability alpha for this sample of .69. Drug use problems were assessed with four yes/no questions asking students such things as, "have you ever been in a physical fight while under the influence of alcohol or drugs?" (alpha = .83). Total drug use problem scores were calculated as the total number of problems endorsed, yielding a possible range from 0 to 4.

RESULTS

Preliminary Analyses

Means and standard deviations were calculated for each of the independent (NAAS, MEIM, and OCIS) and dependent (RESE, CASAFS, PSSMS, GPA, CES-D, YSR-DBS, substance use frequency, and substance use problems) variables in the study. Additionally, a bivariate correlation matrix was created to assess simple relationships among the study variables.

Primary Analyses

Two sets of primary analyses were performed. First, a series of multiple regression analyses were calculated separately for males and females for each dependent variable (RESE, CASAFS, PSSMS, GPA, CES-D, YSR-DBS, substance use frequency, and substance use problems) with the ethnicity scales (NAAS, MEIM affirmation/belonging, MEIM exploration, OCIS American Indian, and OCIS White) as independent variables. Several of the predictor variables were highly correlated with one another, introducing multicollinearity into the standard forced entry regression model. Stepwise entry procedures were used in all regression models to ensure that all variables entered into the equation accounted for unique variance in the outcome variables.

Second, two Multivariate Analyses of Variance were conducted by creating categorical variables from the orthogonal subscales of the MEIM and OCIS. A median split was used to divide the two subscales of the MEIM, affirmation/belonging and

exploration, into high and low groups for each subscale. These groups were then used to create the categories of foreclosed (low on exploration, high on affirmation), diffused (low on both scales), moratorium (high on exploration/low on affirmation), and achieved (high on both scales) ethnic identities. The two subscales of American Indian and majority identification found in the OCIS were also divided in to low and high groups based on median splits. The two subscales were then used to create the categories of traditional (high on American Indian/low on White), marginal (low on both cultures), bicultural (high on both cultures), and acculturated (high on White/low on American Indian) cultural identification. Two separate 2 X 4 MANOVAS were performed with biological sex as one independent variable and the categorical ethnic identity variables as the other. The psycho/social outcome variables of RESE, CASAFS, PSSMS, GPA, CES-D, YSR-DBS, substance use frequency, and substance use problems were employed as related dependent variables.

Preliminary Results

The means and standard deviations for all predictor and outcome variables for both male and female participants can be viewed in Tables 1 and 2. Also included in the tables are the number of participants and the possible range for each variable.

As part of the preliminary analyses a correlation matrix was also created to describe bivariate associations among the predictor variables (NAAS, MEIM, and OCIS) and the outcome variables (GPA, substance use frequency, substance use problems, YSR-DBS, CASAFS, CES-D, PSSMS, and the RESE). A complete summary of correlations for females and males can be found in Tables 3 and 4, respectively.

Table 1

Means and Standard Deviations for Ethnic Identity Measures for Males and Females

Measure	Gender	Mean	SD	Possible range	N
OCIS					
American Indian	Male	3.1231	.68165	1-4	65
	Female	3.2595	.65794	1-4	70
OCIS					
majority	Male	2.6897	.88038	1-4	65
	Female	2.4238	.79282	1-4	70
NAAS					
Native American acculturation	Male	3.101	.38278	1-5	65
	Female	3.4320	.40491	1-5	70
MEIM					
identity belonging	Male	3.3755	.48417	1-4	65
	Female	3.3119	.49477	1-4	70
MEIM					
identity exploration	Male	2.8769	.51197	1-4	65
	Female	2.9068	.46399	1-4	70

Table 2

Means and Standard Deviations for Psycho/Social Outcome Measures for Males and Females

Measure	Gender	Mean	SD	Possible range	N
CASAFS social functioning	Male	74.1846	9.02409	24-96	65
	Female	73.9265	9.11013	24-96	68
RSES self-esteem	Male	3.1968	.47246	1-4	65
	Female	3.0305	.49994	1-4	70
CES-D depression	Male	1.8487	.48363	1-4	65
	Female	1.9266	.60878	1-4	70
PSSMS school belonging	Male	3.4115	.54104	1-5	65
	Female	3.4739	.59342	1-5	69
GPA	Male	2.9032	.78322	0-4	62
	Female	3.1719	.82721	0-4	64
YSR-DBS delinquent behaviors	Male	1.5009	.37556	1-3	65
	Female	1.5111	.36984	1-3	70
Drug Use frequency of use	Male	6.1538	1.76981	5-25	65
	Female	5.9275	1.89674	5-25	69
problems	Male	.4769	.96998	0-4	65
	Female	.7353	1.32279	0-4	68

Table 3

Correlations among Predictor and Outcome Variables for Females

Measure	Pearson's <i>r</i>	MEIM belonging	MEIM explore	OCIS Am. Ind.	OCIS majority	NAAS
GPA	<i>r</i>	-.202	-.276*	-.117	.188	-.214 [^]
RESE	<i>r</i>	.457**	.203 [^]	.187	.225 [^]	.015
CES-D depression	<i>r</i>	-.235*	-.091	-.145	-.173	-.066
CASAFS social functioning	<i>r</i>	.330**	.258*	.141	.079	-.018
PSSMS school membership	<i>r</i>	.225 [^]	.185	.060	.133	-.176
YSR-DBS delinquent behavior	<i>r</i>	-.105	-.088	-.077	-.049	-.050
Drug Use Problems	<i>r</i>	-.186	-.118	.095	.021	-.050
Drug Uses Frequency	<i>r</i>	-.303*	-.329**	-.128	.162	-.264*

[^] $p < .10$; * $p < .05$; ** $p < .01$

Table 4

Correlations among Predictor and Outcome Variables for Males

Measure	Pearson's <i>r</i>	MEIM belonging	MEIM explore	OCIS Am. Ind.	OCIS majority	NAAS
GPA	<i>r</i>	-.152	.94	.008	.108	-.147
RESE	<i>r</i>	.417**	.175	-.209 [^]	.332**	.019
CES-D depression	<i>r</i>	-.232 [^]	-.030	.014	.116	.018
CASAFS social functioning	<i>r</i>	.402**	.395**	-.148	.155	.076
PSSMS school membership	<i>r</i>	.302*	.306*	-.165	.210 [^]	.007
YSR-DBS delinquent behavior	<i>r</i>	-.258*	-.043	.108	-.141	.027
Drug Use Problems	<i>r</i>	-.211 [^]	.076	.103	-.044	.175
Drug Uses Frequency	<i>r</i>	-.246*	.076	.090	-.159	.166

[^] $p < .10$; * $p < .05$; ** $p < .01$

A second correlation matrix was calculated to examine associations among the predictor variables (NAAS, MEIM, OCIS). A complete reporting of correlations among predictor variables for males and females can be seen in Table 5.

Table 5

Correlations among Ethnic Identity and Psychosocial Outcome Variables for Males and Females

Male Female	Pearson's <i>r</i>	MEIM belonging	MEIM explore	OCIS Am.Ind.	OCIS majority	NAAS
MEIM Belonging	<i>r</i>	1	.538**	.274*	.047	.376**
MEIM explore	<i>r</i>	.476**	1	.417**	-.107	.588**
OCIS Am.Ind.	<i>r</i>	.400**	.236*	1	-.388**	.482**
OCIS Majority	<i>r</i>	-.131	-.305**	-.304**	1	-.345**
NAAS	<i>r</i>	.375**	.298*	.617**	-.445**	1

Note. ^ $p < .10$; * $p < .05$; ** $p < .01$; Male results top right half of diagonal, female results bottom left half of diagonal.

Primary Results

Stepwise Multiple Regressions

Table 6 contains a summary of the final steps in the significant regressions for the series of stepwise multiple regressions predicting the eight psychosocial outcomes from the five scales of the MEIM, OCIS, and NAAS for male students. Five of the eight regressions were significant, suggesting that ethnic identity measures are important predictors of self-esteem, general social functioning, school belonging, delinquent behavior, and the frequency of substance use for males. The affirmation/belonging subscale of the MEIM emerged as an important protective factor for each outcome, while the exploration scale yielded less consistent results (positive association with both substance use frequency and general social functioning--CASAFS). The OCIS American Indian subscale was found to be statistically significant in the negative direction for social functioning (CASAFS), self-esteem (RESE), and school belonging (PSSMS).

Table 6

Significant Stepwise Regressions Predicting Psychosocial Outcomes from Ethnic Identity and Acculturation Measures for Males

Outcome	Predictors Included	Adj. R^2	F	p	$Beta$	t	p
RSES (Self-esteem)		.264	12.467	<.001			
	MEIM belonging scale				.513	4.559	<.001
	OCIS American Indian scale				-.349	-3.130	.003
CASAFS (Social funct.)		.303	10.260	<.001			
	MEIM belonging scale				.294	2.371	.021
	MEIM exploration scale				.402	3.057	.003
	OCIS American Indian scale				-.396	-3.442	.001
PSSMS (School)		.172	7.641	.001			
	MEIM belonging scale				.452	3.629	.001
	OCIS American Indian scale				-.355	-2.835	.006
YSR-DBS (Delinquent)		.052	4.496	.038			
	MEIM belonging scale				-.258	-2.120	.038
Drug use (frequency)		.094	4.33	.018			
	MEIM belonging scale				-.404	-2.863	.006
	MEIM exploration				.294	2.082	.042

Table 7 contains a summary of final steps in the significant regressions for the series of stepwise multiple regressions predicting the eight psychosocial outcomes from the five scales of the MEIM, OCIS, and NAAS for female students. Four of the eight regressions were significant in this group. Ethnic identity measures were important in the prediction of self-esteem, general social functioning, grade point average, and problems associated with substance use for the female sample. As with young men, the affirmation/belonging subscale of the MEIM emerged as a strong protective factor with regard to social functioning and self-esteem. The OCIS subscale of majority affiliation was also positively related to self-esteem. The MEIM subscale of exploration interestingly emerged to be important in prediction of lower levels of substance use problems, but was negatively related to GPA.

Table 7

Significant Stepwise Regressions Predicting Psychosocial Outcomes from Ethnic Identity and Acculturation for Females

Outcome	Predictors Included	Adj. R^2	F	p	Beta	t	p
RESE		.270	13.748	<.001			
	MEIM belonging scale				.494	4.765	<.001
	OCIS majority culture scale				.290	2.793	.007
CASAFS		.095	8.041	.006			
	MEIM belonging scale				.330	2.836	.006
Grade point average		.061	5.108	.027			
	MEIM exploration scale				-.276	-2.260	.027
Drug use problems		.095	8.155	.006			
	MEIM exploration scale				-.329	-2.856	.006

MANOVA

Two separate 2 X 4 MANOVAS were performed with biological sex as one independent variable and the categorical scoring of the MEIM and OCIS as the other. The psycho/social outcome variables of RESE, CASAFS, PSSMS, GPA, CES-D, YSR-DBS, substance use frequency, and substance use problems were employed as related dependent variables for each MANOVA.

The MANOVA assessing the ethnic identity statuses of diffused, foreclosed, moratorium, and achieved from the MEIM was computed first. The multivariate analysis revealed significant main effects for biological sex, Wilks' Lambda; $F(8, 107) = 3.25$, $p = .002$, $\eta^2 = .195$, and for ethnic identity status, Wilks' Lambda; $F(24, 310.93) = 3.03$, $p < .001$, $\eta^2 = .184$. The interaction between biological sex and developmental ethnic identity status was also significant, Wilks' Lambda; $F(24, 310.93) = 2.477$, $p < .001$, $\eta^2 = .156$.

Self-esteem. The univariate analysis for the dependent variable of self-esteem yielded a significant main effect for developmental status, $F(3, 114) = 5.01$, $p = .003$, $\eta^2 = .117$. Scheffe post hoc tests indicated that students with achieved status reported higher self-esteem than either those with diffused status (mean difference = .3778, $p = .007$) or those with moratorium status (mean difference = .3905, $p = .043$). No other pairwise comparisons were significant. The main effect for biological sex and the interaction between developmental status and biological sex were not significant, $F(1, 114) = 1.98$, $p = .163$, $\eta^2 = .017$, and $F(3, 114) = .10$, $p = .961$, $\eta^2 = .003$, respectively.

Social functioning. The univariate analysis for the dependent variable of social functioning yielded a significant main effect for developmental status, $F(3, 114) = 6.974$,

$p < .001$, $\eta^2 = .155$. Scheffe post hoc tests revealed that students with achieved status reported higher social functioning than those of the other three status groups of diffused (mean difference = 8.452, $p < .001$), foreclosed (mean difference = 6.496, $p = .025$) and moratorium (mean difference = 7.543, $p = .027$). The main effect for biological sex and the interaction between developmental status and biological sex were not significant, $F(1, 114) = .179$, $p = .673$, $\eta^2 = .002$, and $F(3, 114) = .514$, $p = .674$, $\eta^2 = .013$, respectively.

School membership. The univariate analysis for the dependent variable of school membership yielded a significant main effect for developmental status, $F(3, 114) = 5.82$, $p = .001$, $\eta^2 = .133$. Scheffe post hoc tests showed that students with achieved status reported higher self-esteem than either those with diffused status (mean difference = .4537, $p = .006$) or those with foreclosed status (mean difference = .4627, $p = .01$). No other pairwise comparisons were significant. The main effect for biological sex and the interaction between developmental status and biological sex were not significant, $F(1, 114) = .056$, $p = .813$, $\eta^2 = .000$, and $F(3, 114) = .387$, $p = .763$, $\eta^2 = .010$, respectively.

Grade point average. Analysis for the dependent variable of GPA yielded a significant main effect for biological sex, $F(1, 114) = 3.929$, $p = .05$, $\eta^2 = .033$. Females reported significantly higher GPA (mean = 3.2) than males (mean = 2.9). The main effect for developmental status and the interaction between developmental status and biological sex were not significant, $F(1, 114) = .191$, $p = .132$, $\eta^2 = .048$, and $F(3, 114) = 1.866$, $p = .139$, $\eta^2 = .047$, respectively.

Drug use frequency. Analysis for the dependent variable of drug use frequency yielded a significant main effect for biological sex, $F(1, 114) = 17.296$, $p < .001$,

$\eta^2 = .132$. Males reported a higher total mean (mean = 6.129) than females (mean = 5.733). The main effect for developmental status was also significant, $F(3, 114) = 7.904$, $p < .001$, $\eta^2 = .172$. However, Scheffe post hoc tests did not reveal statistically significant pairwise comparisons. Examination of the means indicated that students with moratorium status reported the most frequent drug use and students with foreclosed and achieved status reported the least frequent drug use. The interaction between developmental status and biological sex was significant, $F(3, 114) = 12.486$, $p < .001$, $\eta^2 = .247$, with males in moratorium status reporting much more frequent drug use than any other group. However, this result should be interpreted cautiously because the sample size for the male moratorium group was very small ($n = 4$) and the data failed to meet the assumption of homogeneity of variance (Levene's test for equality of variance: $F(7, 114) = 6.52$, $p < .001$).

Drug use problems. The univariate analysis for the dependent variable of drug use problems yielded a significant main effect for developmental status, $F(1, 114) = 5.19$, $p = .002$, $\eta^2 = .120$. Again, Scheffe post hoc tests did not reveal significant mean differences between developmental status categories. Students in moratorium status reported the most problems associated with drug use and students with foreclosed status reported the fewest problems. The main effect for biological sex was not significant, $F(1, 114) = 1.183$, $p = .242$, $\eta^2 = .012$. A significant interaction effect was found between developmental status and biological sex for this dependent variable, $F(3, 114) = 6.607$, $p < .001$, $\eta^2 = .148$. Again, males in moratorium status reported much higher rates of problems associated with drug use than any other group. Again, however, this result should be interpreted cautiously because the sample size for the male moratorium group

was very small ($n = 4$) and the data failed to meet the assumption of homogeneity of variance (Levene's test for equality of variance: $F(7, 114) = 4.25, p < .001$).

Delinquent behavior. Analyses for the dependent variable of delinquent behavior yielded a marginally significant interaction effect for biological sex and developmental status, $F(3, 114) = 2.462, p = .066, \eta^2 = .061$. Similar to the results for drug use variables, males in moratorium status reported much higher rates of delinquent behavior than any other group. The main effect for developmental status and biological sex were not significant, $F(1, 114) = 1.49, p = .221, \eta^2 = .038$, and $F(3, 114) = .1401, p = .239, \eta^2 = .012$, respectively.

Depression. Significant findings were not found for this dependent variable on the univariate level.

The second 2X4 MANOVA assessing the categorical scoring of the OCIS for males and females yielded a significant main effect for biological sex, Wilks' Lambda: $F(8, 107) = 2.10, p = .042, \eta^2 = .136$. Univariate analyses indicated that males reported lower grade point averages than girls, $F(1, 114) = 5.85, p = .017$, and marginally higher frequency of substance use in the past month, $F(1, 114) = 3.40, p = .068$. Neither the main effect for acculturation status nor the interaction between sex and acculturation status were significant at the multivariate level, Wilks' Lambda: $F(24, 310.934) = 1.33, p = .144, \eta^2 = .09$ and $F(24, 310.934) = 0.79, p = .750, \eta^2 = .056$, respectively.

DISCUSSION

The goal of this study was to examine the predictive qualities of various theory driven ethnic identity and acculturation measures in regards to Navajo adolescents' psychosocial adjustment. First, based on basic ideas of Erikson's theory of identity development (1968), adolescents' subjective experiences of having explored and committed to Navajo culture were assessed with Phinney's MEIM (Roberts et al., 1999). Second, based on Oetting and Beauvais' (1991) conceptualization of orthogonal pathways to identification with more than one culture, the OCIS assessed Navajo adolescents' endorsement of both Navajo cultural practices and White American culture. Finally, based on unidimensional theories of acculturation, the NAAS examined adolescents' self-reported position on a continuum from traditional to acculturated (Garrett & Pichette, 2000). Previous research and theory has suggested that each of these measures should be predictive of psychosocial outcomes for American Indians. By examining associations among each ethnicity measure and each outcome variable, a more sophisticated understanding of the role of ethnic identity and acculturation in the lives of Navajo adolescents would be revealed. Briefly stated, the MEIM was the most predictive ethnic identity measurement, clearly outlining an association between strong ethnic identity and positive psychosocial outcomes. The OCIS had limited predictive association with positive and negative outcomes with this group of Navajo students. The NAAS was minimally associated with psychosocial outcomes. The following discussion outlines implications of results examining each predictive measure in relation to the psychosocial

outcome variables investigated. A discussion of the limitations to this research study and directions for future research will finalize this section.

Multigroup Ethnic Identity Measure

The MEIM (Roberts et al., 1999) emerged as the ethnic identity measure that was most predictive of positive outcomes for males and females. This measure is comprised of two subscales, the affirmation/belonging subscale and the exploration subscale. The affirmation/belonging subscale assesses an individual's subjective experience of connection and pride in his or her ethnic group, with items such as, "I have a strong sense of belonging to my own ethnic group," and "I am happy that I am a member of the group I belong to." The exploration scale defines the extent to which the student has explored aspects of his ethnicity and incorporated a sense of what this exploration means personally. This scale emphasizes the necessity of going through the process of developing and internalizing a sense of ethnic identity. Examples of questions demonstrating this would be "I have a clear sense of my ethnic background and what it means to me," and, "To learn more about my ethnic background, I have often talked to other people about my ethnic group." Of the twelve items in this measure, only one assessed the extent to which the student participated in traditional cultural behaviors. Therefore, this is not a measure of acculturation or traditionalism; that facet of ethnic identity is captured by the other ethnicity measures used in this study. Perhaps the de-emphasis on traditionalism and cultural immersion is what makes this scale especially useful in assessing associations with well being. The MEIM may be predictive of well being because confidence with one's ethnic identity helps one develop a role as an

American Indian in an increasingly bicultural world. As living and being successful in traditional ways of life become more and more difficult, feelings of commitment and belonging to one's ethnic group may be instrumental in overcoming negative effects of acculturative stress. Thus, individuals with a strong sense of commitment and pride in their ethnic background could actively participate in all aspects of their current lives, both traditional and dominant cultures. This freedom to engage with dominant culture, while maintaining a strong sense of ethnic pride may diminish feelings of conflict because of ethnicity and by so doing increase feelings of well-being.

This study found that the MEIM is a strong predictive factor for positive outcomes for males and females, although more consistent results were found for male adolescents. The affirmation/belonging subscale was found to be the strongest predictor of better outcomes for self-esteem, social functioning, and school membership for males. These results reaffirm that achievement of high levels of commitment/belonging to one's ethnicity serve as a protective factor for positive personal subjective feelings about the self and social world. Additionally, higher levels of commitment to male adolescents' Navajo identity was also related significantly to lower levels of delinquent behaviors and less frequent substance use. The clear relationship found between affirmation of ethnic identity and both positive and negative psychosocial outcomes delineates the need within the Navajo community to continue to foster the development of a strong ethnic identity, particularly in adolescent males. Although this study did not find associations between ethnic identity and depression, which will be discussed later, the multiple direct influences on positive outcomes indicate that other positive outcomes not specifically

tested in this study could likely be influenced by a strong sense of belonging and commitment to one's ethnic identity.

The belonging subscale of the MEIM was also a significant predictor of positive outcomes for females, specifically self-esteem and social functioning, but was not related to negative outcomes (i.e., drug use and delinquency). Like the male Navajo adolescents, a strong sense of ethnic identity is predictive of positive personal feelings and appraisals of success in their social world for females as well. Differences were found in that the MEIM belonging subscale was not significantly related to decreased negative behaviors for females in the areas of drug use and delinquency. These findings suggest that having a strong sense of commitment and belonging to their ethnic identity is less relevant to negative outcomes for Navajo adolescent females than it is for males. Published literature suggests that females engage in less delinquent behaviors than males in general (Mears, Ploeger, & Warr, 1998). Given this, literature defining clear cultural gender differences in minorities that would help in understanding biological sex differences in this study could not be found. These differences between males and females suggest the need for further research in this area.

The MEIM exploration subscale was less consistent in prediction of positive outcomes for males and females. For the male adolescents the exploration subscale was, along with the belonging subscale, a significant contributor to the regression model predicting positive outcomes in the area of social functioning. Interestingly, however, the exploration subscale was also positively related to drug use frequency, suggesting that high levels of exploration are related to more frequent drug use. The predictive qualities of the exploration subscale for the female adolescents were equally mixed. Higher levels

of exploration were related to lower self-reported grade point averages, but also to fewer reported problems associated with substance use.

The exploration subscale assesses the effort the student has initiated into exploring and defining his or her ethnic heritage, history, and culture. This could be seen as a prerequisite to committing to and integrating the adolescent's ethnicity into their overall sense of identity. Recalling the theoretical foundation of the MEIM and other ethnic identity developmental scales may facilitate a better understanding of the mixed results of this study. A time of exploration could be characterized as a difficult time of possible turmoil. Marcia, Waterman, Matteson, Archer, and Orlofsky (1993) described adolescents who strive for attention as well as rebel against their parents' wishes. In ethnic identity development, it is a time when adolescents are trying on different identities and different behaviors, similar to the immersion stage of Cross's (1995) ethnic identity model. While this is a time for exploring their ethnicity, possible anger at the dominant society and guilt from previous acceptance of negative views of one's ethnic group, can accompany this time in one's life. The challenging of previously accepted beliefs may be painful at times and turning away from the ideas this exploration has garnered may be part of the developmental process. This pain is often part of the larger positive process of expanding one's view of the world and accepting the role one can play within that world.

When one considers adding the ethnic identity exploration process to the challenges of normal adolescent development, it is more understandable that the exploration process may be related to problem behaviors in some circumstances, but may still be positive in other areas. Although the exploration process may be negative and

stressful at times, the results from the MANOVA calculation lead us to believe that it is still a necessary part of developing a healthy ethnic identity.

The results of the MANOVA examining differences among the developmental categories that were constructed from the two MEIM scales reflect the developmental process and the positive life benefits of fully integrating a sense of ethnic identity into the overall identity of the adolescent. For both the male and female adolescents, those who were categorized as having achieved status (i.e., reported high levels of exploration of their ethnic heritage and high levels of affirmation/belonging to their ethnic heritage) were found to have higher scores than foreclosed, diffused, and moratorium students in the outcome areas of self-esteem, social functioning, and school membership. This again reinforces Phinney's (1989) assumption that the process of developing ethnic identity in adolescence is an important stage in a minority adolescent's life, and specific to this study, the lives of Navajo students.

The exploration process is likely essential to developing a strong coherent overall sense of ethnic identity. A possible drawback of being committed to ethnic identity but not have explored one's ethnic heritage (foreclosed) is that one might not have a true view of the culture to which he or she is committed. It is possible that one could be immersed in the culture but not truly understand or appreciate the tradition and reason behind the cultural practice or behavior. This limited view of one's ethnic culture could limit the experiences, change, or flexibility that would be possible if that individual had gone through the exploration process.

In summary, the results from analyses using the MEIM strongly suggest that feelings of commitment and belonging to one's Navajo ethnicity are predictive of

positive outcomes in the psychological and social areas of self-esteem, social functioning, and school functioning, particularly for male Navajo adolescents. One of the primary goals of this study was to identify predictors of positive outcomes, as well as risk factors for negative outcomes. Many previous studies involving American Indians have focused on the prediction of negative outcomes, such as substance abuse (Beauvais et al., 1996; James et al., 2000; Kulis et al., 2002; Oetting & Beauvais, 1991; Oetting, Swaim, et al., 1998). The results of this study with the MEIM were consistent with previous studies, in that ethnic identity was inconsistently related to drug use and delinquency, but did highlight prediction of positive outcomes related to identity development. This clear association between positive psychosocial development and ethnic identity commitment and belonging, if fostered by the Navajo community, could be instrumental in improving the lives of Navajo adolescents.

The Orthogonal Cultural Identity Scale

The OCIS was less predictive than the MEIM in all psychosocial outcome areas. The OCIS subscales were found to be predictive of a single positive outcome with the female sample, and the American Indian subscale was found to be negatively related to multiple psychosocial outcomes for male participants. These results were very surprising and not in accordance with our original hypothesis. Oetting and Beauvais (1991) found that strong identification with a culture, either White or American Indian, was predictive of better school adjustment. However, the only result from this study that was consistent with this previous research revealed that identification with the majority culture, combined with high levels of commitment and belonging to their Navajo ethnicity, was

predictive of positive outcomes in the area of self-esteem for female participants. This is reminiscent of literature suggesting that bicultural American Indians have more positive psychological outcomes than other acculturation statuses (Lafromboise, Coleman, & Gerton, 1993). However, by combining information gleaned from both the OCIS and the MEIM, this study provides a unique picture of bicultural success. The two scales used in this study were qualitatively different in their measurement of cultural identity. In this case, strong feelings of commitment and belonging to Navajo ethnicity, combined with feelings of being a success in majority culture practices, were associated with better outcomes.

Theoretically, the OCIS scale contends that biculturalism is achieved when one feels successful in the practices of two cultural worlds. The difficulties associated with achieving success in the cultural practices of both Navajo and White cultures have been discussed by many researchers (LaFromboise et al., 1993; Choney et al., 1995; Moran et al., 1999). It is important to remember that the central tenet of the OCIS is that minority adolescent identification with a given culture is independent of identification with another culture. The adolescents report whether they feel that they and their families participate in and feel successful in maintaining the given culture's practices. It has been suggested that ethnicity measures such as the OCIS may be more accurately assessing cultural immersion as opposed to internalized identification with that culture (Pittenger, 1998). As seen with the results for female participants, a possible better predictor of bicultural identification and positive mental health may be internalized feelings of belonging and commitment to their ethnic heritage combined with the ability to adapt to or be successful in majority cultural practices.

The results from the regression models revealed that male adolescents who reported high levels of participation in and feelings of success in American Indian cultural activities and lifestyles reported lower levels of self-esteem, social functioning, and school involvement. These results were contrary to hypotheses and warrant further discussion. It has been suggested in the cognitive psychology literature (Griffin, 2002), that disidentifying with school may be a defensive mechanism to protect feelings of self-worth for those who find school difficult. A likely explanation for low school involvement is that because of language, cultural differences, and feelings of discrimination, more traditional Navajo males may have difficulty fitting into and succeeding in a school system based upon majority values and culture. Thus, as a means of protecting their self-worth, they may disidentify with the school setting.

Alternatively, other related research and theory (Ogbu, 1993) suggests that individuals in some minority subcultures believe that to be successful in their native culture, it is necessary to reject major aspects of the dominant culture. An aspiration to achieve, in academics and career paths, by the rules dictated by majority culture has been documented in the literature as “acting White” for African American adolescents and success in dominant society may be viewed by one’s African American peers as disloyal to African American culture (Bergin & Cooks, 2002). Rejection of the dominant culture may also be an important aspect of ethnic identity for Navajo males, such that to feel strongly committed to their own culture they may feel they need to turn away from or disregard the values of the majority culture. In fact, bivariate correlations for males indicated that the American Indian and White identification subscales were significantly negatively correlated ($r = -.39$), suggesting that males who reported stronger

identification with traditional culture reported less identification with White culture.

However, most American Indians live in contexts where adaptation to some dominant culture values is expected (e.g., school attendance and performance). For this reason, adherence to traditional culture, while rejecting the values and practices of dominant society culture, may hinder adaptation in some important contexts. Due to the bicultural nature of the world lived in by most American Indians, lower self-esteem and social functioning may be the result of rejecting a major aspect of the world in which they live.

One final possible explanation for the negative associations between American Indian identification and psychosocial adjustment for Navajo males is related to the history of forced assimilation described previously. The cultural change brought about by forced assimilation practices (e.g., mandatory boarding school, relocation programs, etc.) has weakened the traditional roles and practices of American Indians. The Navajo have traditionally been a matriarchal society with great emphasis upon maternal clan (extended family of the mother's line) responsibilities. This society is vastly different than the patriarchal society and nuclear family system found within the dominant society. Maintaining self-esteem and self-worth through traditional male roles has become increasingly difficult. The advent of the reservation system impacted the male Navajo's ability to hunt and provide for his clan in a traditional manner, as well as the traditional warrior role. Thus, succeeding generations of Navajo males may feel highly tied to their American Indian heritage, but may remain in a state of confusion about what their role in American Indian society can be in our current modern world. Lack of a defined role can be linked to states of turmoil and difficulty in a person's life (Good, Robertson,

Fitzgerald, Stevens, & Bartels, 1996), perhaps contributing to the current rates of alcoholism and suicide among American Indian males.

The MANOVA examining differences among acculturation statuses of traditional, marginal, bicultural, and acculturated, as measured by the OCIS, yielded no significant results. This was surprising because literature has suggested that marginal acculturation status is highly related to negative psychological and social outcomes (Garrett & Pichette, 2000). It has also been suggested that bicultural and traditional acculturation statuses would be related to more positive outcomes. One possible explanation for the contradictory results obtained in this study is that students generally reported very high levels of identification with American Indian culture. Means for both males and females were greater than 3 on a 4-point scale, suggesting that most participants viewed themselves as quite invested in Native American culture. Thus, the median split that was used to create high and low groups of students on the American Indian scale of the OCIS was somewhat misleading, because even the lower group reported somewhat high American Indian identification. This may have led to statistical problems identifying relationships between the categorical variables and psychosocial outcomes because of the lack of variability between some categories.

The Native American Acculturation Scale

The NAAS was least predictive of all ethnicity related measures. It is possible that the NAAS was too diverse in scope to strongly correlate with any particular outcome variable. This scale was the longest of the ethnicity measures, 20 items. Each question in the NAAS was specifically designed to be used with exclusively American Indian

populations; it covered many specific cultural activities such as traditional language use, use of traditional healers, American Indian preferences, associations, foods, entertainment and knowledge of traditions and stories. Although highly correlated with the MEIM and the American Indian subscale of the OCIS, the NAAS was not correlated or significantly predictive of any of the psychosocial outcomes used in this study.

Global Findings

The acculturation and ethnic identity measures as a group predicted positive outcomes within the male sample for self-esteem, social functioning, and school membership with moderate to large effect sizes ($R^2 = .26, .30, .17$, respectively). Significant findings were also found in the outcome area of delinquent behavior and substance use. Increased ethnic affiliation predicted lower delinquent behaviors and substance use in the male students. Although significant, the independent variables accounted for smaller effect sizes with these negative outcome variables ($R^2 = .052$ and $.094$, respectively), indicating that although a sense of belonging to Native American culture is an important part of decreasing negative behaviors, there may be other factors that are more predictive and helpful to adolescents in the areas of delinquency and drug use. This finding is not inconsistent with studies by Oetting and colleagues, which found that cultural identity was related to alcohol and drug abuse in some instances, but with other samples cultural identity was unrelated to substance use (Oetting, Donnermeyer, et al., 1998). Oetting and colleagues suggested that peer norms in each particular region may be a more significant predictor of drug use and delinquency than cultural identity for negative outcomes. These findings and the results of other studies suggest that the

benefits of developing a strong ethnic cultural affiliation are clear for positive outcomes in the lives of Navajo adolescents, but have demonstrated less consistent associations with decreased negative behaviors.

Limitations

None of the measures of acculturation or ethnic identity were associated with depressive symptoms in this study. The trend in the current study was in the same direction as a study done by Roberts et al. (1999), in that ethnic identity was negatively related to depression, but did not reach statistical significance. Manson, Ackerson, Dick, Baron, and Flemming (1990) have suggested possible explanations for lack of significant findings in this area. They reported that the reliability of the CES-D with American Indian populations was quite good, but suggest caution in interpretation of results. It was suggested that the manifestation of depression in American Indians could be different than the manifestation of depression in the majority culture with which the CES-D was normed (Manson et al.). Future research with American Indian samples should be cautious about the use of measures that have been normed and validated with predominantly White samples. Research efforts aimed at developing and establishing psychometric properties for measures to be used with Native American participants are warranted.

One other factor that could have influenced null findings related to the outcome of depression is that the marginal acculturation status was not well represented in this sample. As a school-based sample with close ties to a strong reservation community, most youth reported high affiliation with Navajo culture and lower scores on problem

measures (e.g., depression, substance use, etc.). With restricted range for the outcome of depression and the poor representation of the acculturation status that has been described as at highest risk, it is not surprising that strong associations did not emerge. Replication with higher risk samples or with American Indian youth who do not have strong ties to a reservation community (e.g., urban American Indians) may yield different patterns of association. Additionally, it is possible that other environmental influences, such as socioeconomic status or other factors, not specifically addressed in this study, account for depression for this sample.

Other limitations to this study include the narrow age range of student participants. The majority of the students were freshmen and sophomore students. This limited age range likely restricted the variability of the strength of ethnic identities manifested within this study. It is posited that ethnic identity develops over the course of adolescence (Phinney, 1989); therefore, older students would be expected to be more advanced in the process of identity development. It is also not known if those who chose not to participate were qualitatively different than those who did participate. Results may be slightly altered if all Navajo students of that area participated.

Suggestions for Future Research and

Implications for Practice

As is common with research, some questions may be answered, but many more may emerge. One striking finding of this study that was not specifically addressed in the a priori hypotheses was the emergence of gender differences in the patterns of association between ethnic identity and adjustment. Significant gender differences and gender by

ethnic identity status interactions emerged that were not the original focus of inquiry in this study. These patterns raise interesting questions as to why these differences are present. Future research should be aimed at understanding the differential function of ethnic identity development for males and females. Other questions that necessitate further examination, as suggested previously, are related to the extent that the traditional male role for Navajo men has eroded and the extent to which it impacts the lives of Navajo adolescents and adult males currently. Alternatively, does the traditional Navajo matriarchal culture provide a protective factor for Navajo women? Research examining evolving gender roles for Navajo men and women is very scarce and could yield important insights into the development of social and psychological outcomes for Navajo individuals, families, and communities.

It would be advisable to replicate this study in other areas to verify its generalizability to all Navajo adolescents. It would also be advisable to conduct this study as a longitudinal design, so that longer-term effects of ethnic identity levels can be seen over time. By so doing, the developmental nature of ethnic identity can be more fully examined and its predictive and protective factors could be further delineated.

It is believed that the information gleaned from this study could be utilized by community organizations, parents, educators, and policy makers. Focusing interventions involving ethnic affirmation and belonging towards areas in which they have been shown to predict positive outcomes (self-esteem, social functioning, and school belonging) may enhance outcomes. However, interventions focusing on protective factors involving depression and substance use may need to target topics other than ethnic identity.

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APPENDICES

Appendix A:
Consent Forms

Informed Consent Form

Navajo Ethnic Identity and Acculturation

Introduction/Purpose: Graduate student Matthew Jones and Professor Renee Galliher in the Department of Psychology at Utah State University are conducting a research study. We would like you to be in the study because we want to know how your feelings about your ethnic heritage (being Native) are related to your relationships, school, and well-being. We want to learn how other parts of your life (like your relationships, attitudes, school performance, and behaviors such as substance use) are related to how you feel about being a Navajo. About 250 Page students will be in this research study.

Procedures: Your part in this study will be one 30 minute session. During this time you will complete a survey asking you questions about being Native, school, and other activities that you might do. Also, your school records will be used to verify your academic performance and for follow up studies on this topic. In one year, we will be contacting participants again to see how your feelings about your ethnic heritage affect your relationships, school, and behaviors over time.

Risks: There are no anticipated risks in this research. Some students may feel uneasy letting researchers know about their personal life, thoughts, and attitudes. Remember that all of the information that you give us will be kept private. Your individual answers will not be identified in any report of the results.

The law does require researchers to report certain information (e.g., threat of harm to self or others, abuse of a minor by an adult) to the authorities.

Benefits: We hope that you will find this study to be interesting. Your information will help us learn more about how Navajo students feel about school and other life experiences. It will also help teachers, parents, counselors, and policy makers in their work with Navajo students.

Explanation and Offer to Answer Questions: _____ has explained this study to you and answered your questions. If you have more questions, you can also ask the Primary Investigator, Professor Renee Galliher, at 435-797-3391.

Incentives: As a bonus for participating in this study, you will receive a free ticket to the movie theater.

Voluntary Nature of Participation and Right to Withdraw without Consequences: Being in this research study is entirely your choice. You can refuse to be involved or stop at any time without penalty.

Informed Consent Form

Navajo Ethnic Identity and Acculturation

Confidentiality: Consistent with federal and state rules, your survey answers will be kept private. Only Matthew Jones and Professor Galliher will be able to see the data. All information will be kept in locked filing cabinets in a locked room at Utah State University. Your name will **not** be used in any report about this research and your specific answers will not be shared with anyone else. Data from this study may be used for three years by our research team before it is destroyed. When the research has been completed, a newsletter with the general results will be available at Page High School.

IRB Approval Statement: The Institutional Review Board for the protection of human subjects at Utah State University has approved this research project. If you have any questions regarding IRB approval of this study, you can contact the IRB administrator at (435)797-1821.

Copy of Consent: You have been given two copies of the informed consent. Please sign both copies and keep one for your files.

Investigator Statement: I certify that the research study has been explained to the individual by me or my research staff. The individual understands the nature and purpose, the possible risks and benefits associated with participation in the study. Any questions have been answered.

Signature of PI and Student Researcher:

 Renee V. Galliher, Ph.D., Principal Investigator

 Matthew Jones, Student Researcher
Parent Consent:

By signing this Informed Consent, I agree to let my youth participate in the research and to allow the researchers to review my youth's academic records.

Parent's Signature/Date _____

Print name _____

Youth Assent:

I understand that my parent(s)/guardian is/are aware of this research and have given permission for me to participate. I understand that it is up to me to participate even if my parents say yes. If I do not want to be in this study, I don't have to. No one will be upset if I don't want to participate or if I change my mind later and want to stop. I can ask questions that I have about this study now or later. By signing below, I agree to participate.

 Signature of Participant

 Date

 Print Name

Appendix B:
Measurements

Demographic Information

Directions: This form asks questions about you and your background. Please answer as honestly as you can.

1. *Name:* _____
2. *Gender:* _____ Male _____ Female
3. *Age:* _____
4. *Which category or categories best describes your racial background? (check all that apply)*
- | | | |
|--|---|-------|
| _____ Navajo | _____ White | |
| _____ Navajo and other
American Indian (ex.
Hopi, Ute, etc.) | _____ Other multi-ethnic
background (please
describe) | _____ |
| _____ Navajo and other
ethnicity (ex. White,
Latino, etc.) | _____ Other (please
describe) | _____ |

If you selected more than one category, with which racial background do you most identify?

5. *Religious Affiliation:*
- | | |
|---|-------|
| _____ LDS | |
| _____ Catholic | |
| _____ Protestant (ex. Baptist, Episcopalian, Methodist, etc.) | |
| _____ Jewish | |
| _____ Traditional Navajo beliefs (not Native American Church) | |
| _____ Native American Church | |
| _____ Other (please specify) | _____ |
| _____ None | |
6. *How important is religion to you?*
- | | |
|--------------------------|----------------------------|
| _____ Very important | _____ Fairly important |
| _____ Fairly unimportant | _____ Not important at all |
| _____ Don't know | _____ Not applicable |
7. *Are you currently enrolled in school?*
- | | | |
|----------------------|----------------------|----------|
| _____ Yes, full time | _____ Yes, part time | _____ No |
|----------------------|----------------------|----------|
8. *What grade are you currently in?*
- | | | | |
|-----------|------------|------------|------------|
| _____ 9th | _____ 10th | _____ 11th | _____ 12th |
|-----------|------------|------------|------------|

9. *Your grade point average (GPA) is approximately:*

_____ 0-1.0
 _____ 1.1-2.0
 _____ 2.1-3.0
 _____ 3.1-4.0
 _____ over 4.0

10. *Are you currently employed?*

_____ Yes* _____ No

*IF YES, how many hours per week?

_____ 1-10 _____ 11-20
 _____ 21-30 _____ 31/more

11. *What do you plan to do in the future?*

_____ Some college courses
 _____ College degree (BA/BS)
 _____ Graduate School (MA/MS/PhD/JD/MD)
 _____ Technical School
 _____ Military (Army, Navy, Marines, Air Force)
 _____ Other (please
 specify) _____
 _____ Don't know

12. *With whom do you live? (check all that apply)*

_____ Both parents	_____ Mother only
_____ Father only	_____ Mother & Stepfather
_____ Father & Stepmother	_____ Mother & Boyfriend
_____ Father & Girlfriend	_____ Brother(s)/Sister(s)
_____ Boyfriend/Girlfriend	_____ Auntie(s)
_____ Male friend(s)	_____ Grandmother
_____ Female friend(s)	_____ Grandfather
_____ Non-related adults(s)	_____ Other adult relatives

13. *How would you describe where you live?*

_____ Off Reservation
 _____ Reservation (Lechee or other town)
 _____ Reservation (Very few close neighbors)

14. *How long have you lived in your current residence?*

15. *What is your parents' marital status?*

- _____ Married to each other
 _____ Divorced or separated from each other*
 _____ Never married to each other
 _____ Widowed
 _____ Other _____

*If divorced or separated, how long have they been divorced? _____ yrs.

16. *How far in school did your father go?*

- _____ Some High School
 _____ High School
 _____ Graduate
 _____ Technical School
 _____ Some college
 _____ College Graduate
 _____ Graduate School

17. *How far in school did your mother go?*

- _____ Some High School
 _____ High School
 _____ Graduate
 _____ Technical School
 _____ Some college
 _____ College Graduate
 _____ Graduate School

18. *What does your mother do for a living?*

19. *What does your father do for a living?*

Ethnic Identity Measure

Directions: Use the scale below to indicate how much you agree or disagree with each statement.

	A Strongly Agree	B Agree	C Disagree	D Strongly Disagree
1. I have spent time trying to find out more about my ethnic group, such as history, traditions, and customs.	A	B	C	D
2. I am active in organizations or social groups that include mostly members of my own ethnic group.	A	B	C	D
3. I have a clear sense of my ethnic background and what it means for me.	A	B	C	D
4. I think a lot about how my life will be affected by my ethnic group membership.	A	B	C	D
5. I am happy that I am a member of the group I belong to.	A	B	C	D
6. I have a strong sense of belonging to my own ethnic group.	A	B	C	D
7. I understand pretty well what my ethnic group means to me.	A	B	C	D
8. To learn more about my ethnic background, I have often talked to other people about my ethnic group.	A	B	C	D
9. I have a lot of pride in my ethnic group and its accomplishments.	A	B	C	D
10. I participate in cultural practices of my own group, such as special food, music, or customs.	A	B	C	D
11. I feel a strong attachment towards my own ethnic group.	A	B	C	D
12. I feel good about my cultural or ethnic background.	A	B	C	D

Orthogonal Cultural Identification Scale

The following questions ask how close you are to different cultures.

	A A Lot	B Some	C Not Much	D Not at All
<i>Does your family live by or follow...</i>				
13. a White American or Anglo way of life	A	B	C	D
14. an American Indian way of life	A	B	C	D
15. a Mexican American way of life	A	B	C	D
<i>Do you live by or follow...</i>				
16. an American Indian way of life	A	B	C	D
17. a White American or Anglo way of life	A	B	C	D
18. a Mexican American way of life	A	B	C	D
<i>Is your family a success in...</i>				
19. a Mexican American way of life	A	B	C	D
20. an American Indian way of life	A	B	C	D
21. a White American or Anglo way of life	A	B	C	D
<i>When you are an adult, will you be a success in...</i>				
22. an American Indian way of life	A	B	C	D
23. a Mexican American way of life	A	B	C	D
24. a White American or Anglo way of life	A	B	C	D
<i>Some families have special activities or traditions that take place every year at particular times (such as holiday parties, special meals, religious activities, trips or visits). How many of these special activities or traditions does your family have that are based on...</i>				
25. a White American or Anglo culture	A	B	C	D
26. a Mexican American culture	A	B	C	D

27. an American Indian culture **A** **B** **C** **D**

When you are an adult and have your own family, will you do special things together or have special traditions that are based on...

28. a Mexican American culture **A** **B** **C** **D**

29. a White American or Anglo culture **A** **B** **C** **D**

30. an American Indian culture **A** **B** **C** **D**

Native American Acculturation Scale

Directions: This questionnaire will collect information about your background and cultural identity. For each item, choose the *one* answer that best describes you .

31. What language can you speak?
 - A. Tribal language only (e.g., Cherokee, Navajo, and Lakota)
 - B. Mostly tribal language, some English
 - C. Tribal language and English about equally well (bilingual)
 - D. Mostly English, some tribal language
 - E. English only

32. What language do you prefer?
 - A. Tribal language only (e.g., Cherokee, Navajo, and Lakota)
 - B. Mostly tribal language, some English
 - C. Tribal language and English about equally well (bilingual)
 - D. Mostly English, some tribal language
 - E. English only

33. How do you identify yourself?
 - A. Native American
 - B. Native American and some non-Native American (e.g., White, African American, Latino, and Asian American)
 - C. Native American and non-Native American (bicultural)
 - D. Non-Native American and some Native American
 - E. Non-Native American (E.G., White, African American, Latino, and Asian American)

34. Which identification does (did) your mother use?
 - A. Native American
 - B. Native American and some non-Native American (e.g., White, African American, Latino, and Asian American)
 - C. Native American and non-Native American (bicultural)
 - D. Non-Native American and some Native American
 - E. Non-Native American (E.G., White, African American, Latino, and Asian American)

35. Which identification does (did) your father use?
 - A. Native American
 - B. Native American and some non-Native American (e.g., White, African American, Latino, and Asian American)
 - C. Native American and non-Native American (bicultural)
 - D. Non-Native American and some Native American
 - E. Non-Native American (E.G., White, African American, Latino, and Asian American)

36. What was the ethnic origin of friends you had as a child up to age 6?
- A. Only Native Americans
 - B. Mostly Native Americans
 - C. About equally Native Americans and non-Native Americans
 - D. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
 - E. Only non-Native Americans
37. What was the ethnic origin of friends you had as a child 6-18?
- A. Only Native Americans
 - B. Mostly Native Americans
 - C. About equally Native Americans and non-Native Americans
 - D. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
 - E. Only non-Native Americans
38. Who do you associate with now in your community?
- A. Only Native Americans
 - B. Mostly Native Americans
 - C. About equally Native Americans and non-Native Americans
 - D. Mostly non-Native Americans (e.g., Whites, African Americans, Latinos, and Asian Americans)
 - E. Only non-Native Americans
39. What music do you prefer?
- A. Native American music only
 - B. Mostly Native American music
 - C. Equally Native Music and other music
 - D. Mostly other music (e.g., rock, pop, country, and rap)
 - E. Other music only
40. What movies do you prefer?
- A. Native American movies only
 - B. Mostly Native American movies
 - C. Equally Native American movies
 - D. Mostly other movies
 - E. Other movies only
41. Where were you born?
- A. Reservation, Native American community
 - B. Rural area, Native American community
 - C. Urban area, Native American community
 - D. Urban or Rural area, near Native American community
 - E. Urban or Rural area, away from Native American community

42. Where were you raised?
- A. Reservation, Native American community
 - B. Rural area, Native American community
 - C. Urban area, Native American community
 - D. Urban or Rural area, near Native American community
 - E. Urban or Rural area, away from Native American community
43. What contact have you had with Native American communities?
- A. Raised for 1 year or more on the reservation or other Native American community
 - B. Raised for 1 year or less on the reservation or other Native American community
 - C. Occasional visits to the reservation or other Native American community
 - D. Occasional communications with people on the reservation or other Native American community
 - E. No exposure or communications with people on the reservation, or other Native American community
44. What foods do you prefer?
- A. Native American foods only
 - B. Mostly Native American foods and some other foods
 - C. About equally Native American foods and other foods
 - D. Mostly other foods
 - E. Other foods only
45. In what language do you think?
- A. Tribal language only (e.g., Cherokee, Navajo, and Lakota)
 - B. Mostly tribal language, some English
 - C. Tribal language and English about equally well (bilingual)
 - D. Mostly English, some tribal language
 - E. English only
46. Do you
- A. Read only a tribal language (e.g., Cherokee, Navajo, and Lakota)
 - B. Read a tribal language better than English
 - C. Read both a tribal language and English about equally well
 - D. Read English better than a tribal language
 - E. Read only English
47. Do you
- A. Write only a tribal language (e.g., Cherokee, Navajo, and Lakota)
 - B. Write a tribal language better than English
 - C. Write both a tribal language and English about equally well
 - D. Write English better than a tribal language
 - E. Write only English

48. How much pride do you have in Native American culture and heritage?
- A. Extremely proud
 - B. Moderately proud
 - C. A little pride
 - D. No pride, but do not feel negative toward group
 - E. No pride, but do feel negative toward group
49. How would you rate yourself?
- A. Very Native American
 - B. Mostly Native American
 - C. Bicultural
 - D. Mostly non-Native American
 - E. Very non-Native American
50. Do you participate in Native American traditions, ceremonies, occasions, and so on?
- A. All of them
 - B. Most of them
 - C. Some of them
 - D. A few of them
 - E. None at all

Rosenberg Self-Esteem Measure

Please use the scale below to respond to the following statements.

	A	B	C	D
	Strongly Agree	Agree	Disagree	Strongly Disagree
51. I feel that I am a person of worth, at least on an equal plane with others.	A	B	C	D
52. All in all, I am inclined to feel that I am a failure.	A	B	C	D
53. I feel that I have a number of good qualities.	A	B	C	D
54. I feel I do not have much to be proud of.	A	B	C	D
55. I am able to do things as well as most other people.	A	B	C	D
56. I wish I could have more respect for myself.	A	B	C	D
57. I take a positive attitude towards myself.	A	B	C	D
58. I certainly feel useless at times.	A	B	C	D
59. On the whole, I am satisfied with myself.	A	B	C	D
60. At times I think I am no good at all.	A	B	C	D

Center for Epidemiologic Studies Depression Scale

Directions: Below is a list of ways that you might have felt or behaved. Please indicate how often you have felt or behaved this way during the past week.

		A	B	C	D
		Never	1-2 days	3-4 days	5-7 days
During the past week:					
61.	I was bothered by things that usually don't bother me.	A	B	C	D
62.	I did not feel like eating; my appetite was poor.	A	B	C	D
63.	I felt that I could not shake off the blues even with the help of my family and friends.	A	B	C	D
64.	I felt that I was just as good as other people.	A	B	C	D
65.	I had trouble keeping my mind on what I was doing.	A	B	C	D
66.	I felt depressed.	A	B	C	D
67.	I felt that everything I did was an effort.	A	B	C	D
68.	I felt hopeful about the future.	A	B	C	D
69.	I thought my life had been a failure.	A	B	C	D
70.	I felt fearful.	A	B	C	D
71.	My sleep was restless.	A	B	C	D
72.	I was happy.	A	B	C	D
73.	I talked less than usual.	A	B	C	D
74.	I felt lonely.	A	B	C	D
75.	People were unfriendly.	A	B	C	D
76.	I enjoyed life.	A	B	C	D

77. I had crying spells. **A** **B** **C** **D**
78. I felt sad. **A** **B** **C** **D**
79. I felt that people disliked me. **A** **B** **C** **D**
80. I could not get "going." **A** **B** **C** **D**

Youth Self Report - Delinquent Behavior Scale

Directions: Below is a list of items. For each item that describes you now or within the past 6 months, please select the **C** if the item is **very true or often true** of you. Select the **B** if the item is **somewhat or sometimes true** of you. If the item is **not true** of you, select the **A**.

	A	B	C
	Not True	Somewhat or Sometimes True	Very True or Often True
81. I don't feel guilty after doing something I shouldn't.	A	B	C
82. I hang around with kids who get in trouble.	A	B	C
83. I lie or cheat.	A	B	C
84. I would rather be with older kids than with kids my own age.	A	B	C
85. I run away from home.	A	B	C
86. I set fires.	A	B	C
87. I steal at home.	A	B	C
88. I steal from places other than home.	A	B	C
89. I swear or use dirty language.	A	B	C
90. I cut classes or skip school.	A	B	C
91. I use alcohol or drugs for non-medical purposes.	A	B	C

Substance Use

On how many occasions have you done any of the following things in the past 30 days?

92. *Had an alcoholic beverage to drink (beer, wine, or liquor) (circle only one)*
- a. 0 times
 - b. 1-3 times
 - c. 4-7 times
 - d. 8-15 times
 - e. more than 15
93. *Used marijuana or hashish (circle only one)*
- a. 0 times
 - b. 1-3 times
 - c. 4-7 times
 - d. 8-15 times
 - e. more than 15
94. *Used stimulants (cocaine, methamphetamine, "uppers") (circle only one)*
- a. 0 times
 - b. 1-3 times
 - c. 4-7 times
 - d. 8-15 times
 - e. more than 15
95. *Used hallucinogens (LSD, mushrooms) (circle one only)*
- a. 0 times
 - b. 1-3 times
 - c. 4-7 times
 - d. 8-15 times
 - e. more than 15
96. *Sniffed glue, gases, or sprays to get high (circle only one)*
- a. 0 times
 - b. 1-3 times
 - c. 4-7 times
 - d. 8-15 times
 - e. more than 15
97. *Have you ever driven an automobile while under the influence of alcohol or drugs?*
- A. YES B. NO

98. *Have you ever been in a physical fight while under the influence of alcohol or drugs?*
A. YES B. NO
99. *Have you ever "blacked out" while under the influence of alcohol or drugs?*
A. YES B. NO
100. *Have you ever engaged in sexual behavior that you later regretted while under the influence of alcohol or drugs?*
A. YES B. NO

Psychological Sense of School Membership

Directions: Please read the following statements about your experience at Page High School. Choose the answer that most closely relates to how you feel.

	A Not At All True	B Rarely True	C Sometimes True	D Frequently True	E Completely True
101. I feel like a real part of Page High School.	A	B	C	D	E
102. People around here notice when I'm good at something.	A	B	C	D	E
103. It is hard for people like me to be accepted here.	A	B	C	D	E
104. Other students in this school take my opinions seriously.	A	B	C	D	E
105. Most teachers at Page High School are interested in me.	A	B	C	D	E
106. Sometimes I feel as if I don't belong here.	A	B	C	D	E
107. There's at least one teacher or other adult in this school I can talk to if I have a problem.	A	B	C	D	E
108. People at this school are friendly to me.	A	B	C	D	E
109. Teachers here are not interested in people like me.	A	B	C	D	E
110. I am included in lots of activities at Page High School.	A	B	C	D	E
111. I am treated with as much respect as other students.	A	B	C	D	E
112. I feel very different from most other students here.	A	B	C	D	E
113. I can really be myself at this school.	A	B	C	D	E

- | | | | | | | |
|------|--|----------|----------|----------|----------|----------|
| 114. | The teachers here respect me. | A | B | C | D | E |
| 115. | People here know I can do good work. | A | B | C | D | E |
| 116. | I wish I were in a different school. | A | B | C | D | E |
| 117. | I feel proud of belonging to Page High School. | A | B | C | D | E |
| 118. | Other students here like me the way I am. | A | B | C | D | E |

Child and Adolescent Social and Adaptive Functioning Scale

Please answer the following questions about your life using the following scale.

	A	B	C	D	E
	Never	Sometimes	Often	Always	Not Applicable
119. I get good grades in math.	A	B	C	D	
120. I go out to places with my friends.	A	B	C	D	
121. I have a good relationship with my mother.	A	B	C	D	E
122. I help around the house.	A	B	C	D	
123. I get good grades in science.	A	B	C	D	
124. I have friends of the opposite sex.	A	B	C	D	
125. I have a good relationship with my father.	A	B	C	D	E
126. I keep my room and belongings tidy.	A	B	C	D	
127. I get good grades in social science and/or history.	A	B	C	D	
128. I go to parties and school dances.	A	B	C	D	
129. I get on well with my brother(s)/sister(s) (if you have any).	A	B	C	D	E
130. I keep my clothes clean and tidy.	A	B	C	D	
131. I get good grades in reading/writing/English.	A	B	C	D	
132. I have at least one or two special friends.	A	B	C	D	

- | | | | | | | |
|------|---|----------|----------|----------|----------|----------|
| 133. | I get on well with my relatives. | A | B | C | D | E |
| 134. | I shower and keep myself clean. | A | B | C | D | |
| 135. | I have trouble with my school work. | A | B | C | D | |
| 136. | I spend most of my spare time alone. | A | B | C | D | |
| 137. | I have fights with my parents/guardians. | A | B | C | D | E |
| 138. | I help with the cooking at home. | A | B | C | D | |
| 139. | I am successful at my school work. | A | B | C | D | |
| 140. | I have difficulty making friends. | A | B | C | D | |
| 141. | I have an adult who I can talk to if I have problems. | A | B | C | D | |
| 142. | I help with the cleaning up after meals. | A | B | C | D | |