The Role of Acculturation on the Relationship Between Self-Compassion and Depression Within Native Americans

Kristen Kaylie Pyke-Pierce

University of Montana, Missoula

Follow this and additional works at: https://scholarworks.umt.edu/etd
Let us know how access to this document benefits you.

Recommended Citation
https://scholarworks.umt.edu/etd/11993

This Dissertation is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.
ACCULTURATION, SELF-COMPASSION, AND DEPRESSION IN NA

THE ROLE OF ACCULTURATION ON THE RELATIONSHIP BETWEEN SELF-COMPASSION AND DEPRESSION WITHIN NATIVE AMERICANS

By

KRISTEN KAYLIE ANN PYKE-PIERCE

BA, Syracuse University, Syracuse, NY, 2015
MA, University of Montana, Missoula, MT, 2019

Dissertation

presented in partial fulfillment of the requirements
for the degree of

Doctor of Philosophy
in Clinical Psychology

The University of Montana
Missoula, MT

May 2022

Approved by:

Scott Whittenburg,
Graduate School Dean

Christine Fiore, PhD, Chair
Psychology Department

Duncan Campbell, PhD
Psychology Department

Anisa Goforth, PhD
Psychology Department

Gayle Morse, PhD
Psychology Department

Annjeanette Belcourt, PhD
Pharmacy Practice/Community and Public Health Sciences Department
Acknowledgements

I would like to thank all the people who have supported me through my journey. I could not have made it this far without my spouse, family, and friend’s support. I cannot thank my spouse, Jimmy, enough for the love and support I received from him through this process. Thank you to my family who supported me from afar and continued to encourage me through this journey. I would also like to say a special thank you to my friends for their unwavering support, whether it was by reading drafts to sitting with me when I needed them. I couldn’t have done it without them. Thank you again everyone! I could not have done this without my amazing support system.

I would also like to thank both my advisors, Dr. Gyda Swaney and Dr. Chris Fiore. I could not have made it this far without both of their support throughout my graduate school career. Dr. Swaney taught me so much during our time together and I won’t forget the lessons learned and cultivated through her mentorship. Dr. Fiore continued to help foster my growth throughout graduate school and supported me through the end. I would also like to thank my research mentor, Dr. Gayle Morse, who supported me in several ways throughout the last few years. I would like to thank each of you for teaching me how to be a Native American clinical psychologist.
ACCULTURATION, SELF-COMPASSION, AND DEPRESSION IN NA

ABSTRACT

Pyke-Pierce, Kristen

Abstract Title: The Role of Acculturation on the Relationship Between Self-Compassion and Depression within Native Americans

Chairperson: Christine Fiore, PhD

Research examining the relationship between depression and self-compassion in a Native American (NA) sample is limited (Tielke, 2016). Previous research has found a negative relationship between depression and self-compassion in the general population (Johnson & O’Brien, 2013; Macbeth & Gumley, 2012; Neff, 2003b). Additionally, culture has been found to be beneficial in decreasing depression symptoms in NA persons (Whitbeck et al., 2002). Furthermore, as far as this researcher knows, there is no research examining the relationship between depression, self-compassion and acculturation in a NA sample. This study explored the relationship between depression and self-compassion while utilizing acculturation as a moderator in a tribal sample of NA. Hypotheses included (1) that there would be a negative association between depression and self-compassion; (2) that there would be a negative association between acculturation scores (both NA culture and White culture) and depression scores; and (3) that the level in which a participant acculturates to White, mainstream American identity or NA identity will moderate the association between self-compassion and depression. Participants (n = 105) in this study were self-identified individuals from a Northeastern Tribe in the U.S. ages 20-65 (M age = 29.66, SD = 6.24), who live in proximity to or on a reservation. The results found a statistically significant negative relationship between depression and self-compassion. There was also a negative statistically significant relationship between depression and NA culture. Whereas a positive statistically significant relationship was found between depression and White culture. In regard to the third hypothesis, the overall model with White, mainstream American culture was statistically significant; however, the interaction between White, mainstream American culture was not a significant moderator between self-compassion and depression. In regard to the NA culture, and the overall model was also statistically significant; however, NA culture did not moderate the relationship between self-compassion and depression. While a moderation was not found within the sample, the model was found to be statistically significant with NA culture and self-compassion accounting for a large portion of variance. Taking the findings into consideration, it is recommended that clinicians consider utilizing self-compassion approaches when working with NA from this tribe when treating depression symptoms. Finally, research should focus on incorporating self-compassion approaches and exploring individuals’ cultural identities in the treatment of depression within NA populations.
Background of Native Americans

There are 5.2 million Native Americans within the United States of America (U.S.; U.S. Census Bureau, 2012). The U.S. Census Bureau (2012) reported that there are 567 federally recognized tribes within the U.S. However, this number does not accurately represent every tribe within the U.S.; there are also state recognized tribes and unrecognized tribes. Some of these tribes are not recognized by the federal government or have lost recognition.

The demographics of Native Americans are somewhat different than non-Native populations. While the general population tends to live longer and has fewer children, this is not the case with Native Americans. Approximately 31 percent of the Native American population is 15 years and younger and six percent of the population is at least 64 years old. (Burwell, McSwain, Frazier, and Greenway (2014). The life expectancy for Native Americans from birth is 73.7 years compared to the general population which is 78.1. Burwell et al. (2014) reported that the two leading causes of death among Native American older adults (age 45 and older) are heart disease and malignant neoplasms. Burwell et al. (2014) reported the rates for all causes of death in the Native Americans population are 32,867 per 100,000. Native Americans tend to die at younger ages than people in the general, non-Native population.

Additionally, Native American rates of suicide are 336 per 100,000 (Burwell et al., 2014). Furthermore, males aged 15-24 years old are 2.9 times more likely to complete suicide compared to females of the same age (Burwell et al., 2014). The rate of deaths by suicide among males is 58.7 per 100,000 compared to females at the same age of 20.2 per 100,000 (Burwell et al., 2014). This is an alarming number of young people passing away from suicide, specifically young men, and is higher than the general population of the same age. Thus, the health of Native American individuals, specifically life expectancy rate, should be taken into consideration when
working with this population. By understanding the health factors, we can begin to understand how these factors may impact their overall life view and some of the negative health factors that may be working against them from the beginning.

Paniagua and Yamada (2013) and The National Tribal Behavioral Health Agenda (2016) reported that investigators should also consider socioeconomic status, education, and lack of traditional language when working with Native Americans. These researchers emphasize that the variations across the cultures is one of the most important things to consider when working with different tribes. The variation among each tribe may impact the results of the current study and should be taken into consideration following data collection. Furthermore, Sue and Sue (2013) discussed the importance of considering familial structures within the tribes. The varying customs, such as matrilineal or patrilineal customs, may impact how individuals face certain struggles and respond to healing approaches. The U.S. government, however, plays a large role in how the tribal governments are run. That is, the federal government controls how funds are allocated to each tribe, which subsequently impacts the overall function of services. Overall, there are multiple factors that should be considered when working with tribes and by understanding some of the core factors that may influence a tribe, one can have a better understanding of what factors are important within their tribes.

In summary, a variety of factors should be considered when conducting research with Native Americans. By understanding the cultural nuances and health factors of a particular tribe, researchers can continue to contribute to the well-being of that tribe. There are a number of important considerations such as land and relocation, familial and cultural customs, language, politics and how each of these factors may impact the overall tribe. Furthermore, if applicable,
these factors will be considered in relation to northern tribes. The proposed study will take into consideration some of these factors and how they impact the tribe.

**Historical Trauma**

Historical trauma is defined by Brave Heart (2003) as “cumulative emotional and psychological wounding across generations, including the lifespan, which emanates from massive group trauma” (p.7). Brave Heart (2003) reported that conceptualizing historical trauma solely as posttraumatic stress disorder is inadequate and limiting to the Native Americans who are experiencing the effects of the trauma. Many Native American tribes have been affected by events in their histories that have been transferred across the generations and have continued to negatively impact the younger generations. For example, some events that have negatively impacted Native Americans across generations are forced relocation, boarding schools, loss of language, and laws against practicing traditional ways. Brave Heart (2003) stated that a historical trauma response includes having a reaction to events, which could cause an individual to struggle with substance misuse, depression, suicidal thoughts and gestures, anxiety, anger, low self-esteem, and difficulty recognizing and expressing emotions. Brave Heart (2003) reported that historical trauma responses entail historical unresolved grief that also accompanies the trauma. This grief that is associated with the trauma may be considered delayed grief, disenfranchised grief or fixed grief. The following sections are events or situations that are causally related to historical trauma in Native American individuals.

**Land and Relocation**

A variety of Native American tribes lost their land to the U.S. federal government after certain policies were enacted. In particular, Waghelstein (2001) reported that the first war
between the Native American tribes and the U.S. happened in what is considered today as the state of Ohio in the 1790s. This war was fought because U.S. homesteaders wanted to expand their land base to the northwest, which subsequently started the constant struggle for Native American tribes to stay on their homelands. This relocation of tribes unfortunately continued to occur throughout the U.S. following this war because of the U.S. change in policy regarding land distribution.

The Indian Removal Act that was signed into law in 1830 forced many Native American tribes from their homelands so that areas the west of the Mississippi could be claimed for the U.S. government (Walters, Beltram, Huh, & Evans-Campbell, 2011). The first tribe to be moved was the Choctaw Nation, which in 1831 was relocated to Oklahoma. This forced removal caused many to suffer disease, exposure and starvation on what is known as “the Trail of Tears.” Furthermore the general Land Allotment Act of 1887 caused Native Americans to lose 90 million acres of land (Shoemaker, 2003). The U.S. government had originally traded the land for medical and educational services, which were to be provided to tribal members; however, the U.S. government broke many of these treaties and ended up taking the large amounts of land from the Native American tribes without fulfilling their obligations. The Land Allotment Act did not affect all tribes across the U.S., some tribes in the Northeastern U.S. were exempted (U.S. National Archives and Record Administration, 2020).

**Families, Boarding Schools, and Language**

The Boarding School Era began in the 1870s and forced the assimilation of Native American children to represent the dominate culture (Brave Heart & DeBruyn, 1998). Initially, the Native American families were given a choice for their children to attend school; however, this choice quickly changed into a requirement for Native American children in the 1890s.
Unfortunately, the process stripped Native American children of their cultural identities. Their identities were stripped by punishing the children for using their language and making it difficult for them to return to their families. Furthermore, to make matters worse, if the Native American parents refused to send their children to the boarding schools, then the U.S. government’s Indian agents were allowed to threaten the parents with incarceration or loss of food and supplies. Additionally, many children were punished if they spoke their language or practiced their traditional ways and they also were often located thousands of miles away from their family (Walters et al., 2011). Children were often taught English and Western ways so they could be assimilated into the dominant culture following their completion of school.

These approaches to assimilation led many children to use these ideals with their own children. Horejsi, Craig, and Pablo (1992) found that the boarding schools would replace Native American culture with dysfunctional behaviors that they would use on their own children. Children who went through the boarding schools were not provided with a family life and often times this would lead them to not understanding how to interact with their own children and function within a family. Children who experienced the boarding school era often would have a lack of attachment with their own children, which manifested on occasion in neglect and abuse. Brave Heart (2003) added that parents who were impacted by the boarding school era were more likely to be authoritarian parents, characterized as parents who are non-nurturing and uninvolved in their children’s lives. Studies have shown that there is a high association between the lack of parenting skills and high substance use in children (Brave Heart, 2003). This parenting style could also cause the children to exhibit more psychological symptoms, including depression, substance use, suicide and anxiety (Brave Heart, 2003).
Thus, the on-going cultural genocide, in which Native Americans were stripped of their cultural connections and identity, occurred not only during the boarding school era, but also continued through the foster care system. Whereas Barsh (1980) reported that one in every five Native American children were taken from their families and put into foster care due to poor parental behavior and fear of emotional attachment in the 1970s. The researcher reported that about 80% of children were adopted prior to their first birthday. Many Native American families assumed that their children would be taken away in due time regardless of what each family did to ensure their children would remain with them. Within the foster care system there is an unusually large number (85%) of Native American children who were placed with non-Native American families. During this foster care process, these children were stripped of their cultural identity and forced to assimilate to the dominant culture. These Native American children may not know their cultural identity being raised in a Non-Native American household; nonetheless, within the broader society these children may be more likely to be discriminated against as Native Americans based on their appearance (Barsh, 1980).

The Indian Child Welfare Act of 1978 tried to address this disproportionate number of Native American children that were placed in foster care or for adoption. This act gives special protection to the parents of the Native American child. Furthermore, if a child resides on or is from a tribal reservation, then the Native American tribe has exclusive jurisdiction over proceedings of adoption or placement of a child within a family. This act was created to allow children to be placed with other Native American relatives and community members so that they could be placed in a setting most appropriate for their needs. This act was developed to ensure that Native American children were placed in close proximity to their family and, ideally, with their family. Keller (2020) described the use of the Indian Child Welfare Act (ICWA) within a
tribe in the Northeastern U.S. and the steps took to ensure the child stays with their parents, if possible, by providing them with additional support and resources. For example, if a child is reported to child protective services (CPS) for neglect then ICWA would provide them with additional services and support so that the child would be able to stay with their family. The parents are required to work with a CPS worker and attend parenting classes, addiction classes, and engage in psychotherapy during that time. Keller (2020) described how, for this particular tribe resources and psychosocial support allowed parents to remain a part of their children’s lives.

In regard to languages, U.S. policy has played a significant and problematic role in the loss of languages among Native Americans. This loss impacts tribal communities to this day. For example, Gray (2012) found that only one person was fluent within an Oklahoma tribe of 2,636 members. Weaver and Brave Heart (1999) reported that among the Lakota, there was a higher fluency rate among men (47.1%) compared to women (28%). Furthermore, Weaver and Brave Heart (1999) stated that the fluency rate among parents in men was 94.1% and for women it was 76.5%. There was a detrimental drop among fluency between the two generations of Native Americans within this study. In regard to tribes in the Northeastern U.S. the fluency rates vary from 100 in a tribe of 8,000 to 3,000 speakers in a tribe of 13,000 members. Families and language have continuously been impacted by U.S. government policy against speaking native languages that has been forced on Native Americans.

**Traditional Ways and Spirituality**

There have been several federal and state policies that have negatively impacted Native Americans, particularly in regulating their traditional ways and spirituality (Irwin, 1997). The Indian Religious Crime Code of 1883 prohibited Native Americans to perform ceremonies under
threat of imprisonment. Before this was officially drafted in 1883, the First Continental Congress Indian Proclamation was drafted in 1783. This proclamation declared that the U.S. government had sole power to control affairs of Native Americans and they used this proclamation to deny Native Americans religious rights. The Indian Religious Freedom Act was passed in 1978 and allowed Native Americans to practice their religion and traditional practices without fear of imprisonment. This act was passed so that the U.S. government could try to address their wrong doings towards Native Americans.

**Political Status**

The Indian Citizen Act of 1924 gave Native Americans citizens’ rights. Although this was perceived as a positive change in policy, Bruyneel (2004) believes this act was passed in order to further assimilate Native Americans into the dominant culture. Furthermore, many Native Americans tribes tried to repeal the notion because they opposed becoming citizens of the U.S. government. Indeed, the Iroquois Confederacy (i.e., the Haudenosaunee Confederacy) refused initially to become citizens of the U.S. because they believed that they would lose many of their rights, and that it was a form of assimilation if they became U.S. citizens (Bruyneel, 2004).

In summary, Native Americans have been continuously impacted by negative state and federal policies. Due to these policies, Native Americans have lost their land, sense of identity, culture, families, language, spirituality, and governing rights. Indeed, these government policies are ongoing and continue to affect families to this day. Native Americans could be affected by current policy, or past policy. Although there have been government efforts to address wrongdoing, like the Indian Child Welfare Act and the Indian Citizen Act, the past impacts on generations of Native American people may manifest in a historical trauma response. Brave
Heart (2003) discussed historical trauma psychological responses that include: self-destructive behaviors, anxiety, depression, suicidal thoughts and gestures, low self-esteem and anger.

**Acculturation**

Acculturation is characterized as cultural and psychological changes that can occur over time in an individual and population as they adopt a particular culture’s beliefs and value systems (Berry, 2005). In his conceptualization, Berry (2005) describes acculturation and the various strategies that individuals and communities employ when they are in contact with another culture that differs from their own. This change can occur for a number of reasons, including military invasion, colonization, tourism, and migration. He noted that acculturation often results in longer-term accommodations such as learning each other’s language, sharing food preferences, and adopting social conventions. He stated that sometimes groups acculturate easily; however, if one group is trying to dominate the other, behavioral modifications and acculturation stress may occur.

Berry (2005) explains that several outcomes can happen following the interaction that occurs between two groups of people who have different cultures. He explains that within the first outcome from acculturation an individual may make a behavioral shift or modification, which can be non-problematic and rather easy for the individual. If an individual shifts their behavior it can manifest in a selective or deliberate loss of behaviors, which allows the individual to fit within the dominant culture. The individual may be making adjustments during this time, which allows them to adapt to the dominant culture. Furthermore, an individual may separate from the culture all together if they want to avoid cultural conflict. When cultural conflict becomes excessive, acculturation stress may be experienced by the individual.
Acculturation stress is a response to events that are caused by acculturation (Berry, 2005). Acculturation stress occurs when the individual realizes that the problems they face are not easily dealt with by adjusting or assimilating to the dominant culture. These approaches are ways that an individual can deal with acculturation within their culture.

Berry (2005) suggested that acculturation strategies are put into motion when the two groups interact, these strategies can include goals for each group in which they would like to achieve when they meet and interact with the other group. For example, this might include one group wanting to enslave or control the other group. These changes are likely to affect both cultures. Berry (2005) theorizes that there are four acculturation strategies because of two primary issues: preference to maintain one’s heritage culture and identity, and a preference to have contact with and participate within the larger culture along with other ethnic groups. The four strategies include assimilation, separation, integration, and marginalization. Assimilation is defined as shedding your own culture and embracing the dominate culture in full. Separation is defined as holding on to one’s own culture and distancing themselves from the dominant culture. Integration is maintaining both cultures and interacting with other groups. Finally, marginalization is defined as having little possibility of maintaining cultural heritage (generally because of enforces cultural loss) and little interest in interacting with others. This can occur as a result of discrimination and exclusion. These acculturation strategies are observed within the non-dominant groups (Berry, 2005). This framework assumes that non dominant group members have a choice in how they acculturate.

Some of these strategies and approaches to dealing with acculturation can occur at a group or individual level. These approaches and strategies are used to deal with the conflicts that
can occur between two groups, which can vary among particular groups. Furthermore, Berry (2005) reported some groups may integrate both cultures whether they would like to or not.

Rudmin (2003) reviewed previous published work that explored acculturation. Rudmin (2003) argues against Berry’s theory of acculturation and how it manifests within various groups of individuals. Rudmin (2003) sheds light onto Berry’s earlier research and argues that while Berry has found research providing support to his acculturation theory, much of his earlier work was not statistically significant. Rudmin (2003) summarized that integration appears to be the most impactful among minority groups and often leads to more marginality and stress felt by the minority culture. The researcher also noted that Berry’s framework implies that individuals should become assimilated within the dominate culture because that would lead to less marginality and stress among members of the minority culture. Finally he argues that while bicultural identities are seen by some as positive and adaptive for individuals, Rudmin (2003) found that many researchers have found it to be maladaptive, specifically when it leads to individuals feeling inauthentic. He added that bicultural identity does not end the conflicts or end frustrations for individuals who are from the minority culture. He added that there are researchers who argue for the benefits of acculturation but he was reluctant to agree with researchers on the benefits of acculturation.

Rudmin (2003) wanted to further explore acculturation. Specifically, Rudmin (2003) reported that the purpose of his study was to examine the history of acculturation in order to get a better understanding of the development of acculturation over time. He argues that one of his findings included the lack of exploration that occurs when researchers are developing theories about acculturation. Specifically, he reported that often times many researchers won’t cite the numerous theories that have explored acculturation when developing research about
acculturation. He also summarizes that acculturation is often researched to examine its relationship with well-being. Overall, he found that assimilation, separation and marginalization were reported as being negatively correlated to well-being more so than being positive for individuals in more than 50% of the studies he examined. Furthermore, he reported that integration was reported as being positive for individuals’ well-being in more than 50% of the studies researched.

Rudmin (2009) reviewed the various scales that have been utilized to measure acculturation. He reported that there are many different measurements of acculturation and often times they are continuously being developed because of the lack of validity within the different scales; each scale is unable to accurately measure acculturation in various cultures. Furthermore, he noted that universal measures often have poor validity, and reliability with multiple nations. Rudmin (2009) concluded that individuals may end up continuing to develop new scales because of the various unique cultures. However, he mentioned that it may be more beneficial to identify the scales that have already been developed and modify them to the particular culture so that new scale development is reduced. While taking into consideration the previous research, it is important to continue to evaluate the various scales that are being used to measure acculturation and determine whether they are valid within the specific culture the researchers are working with.

*Orthogonal Cultural Identification Theory*

Oetting (1993) developed the theory of orthogonal cultural identification, in which cultural identification is developed and maintained through different interactions between the various cultures and the person. If an individual meets certain requirements within the culture, then the culture will reward the individual. They noted that in bicultural models of acculturation,
if the rewards are not sufficient or if the individual is not reinforced, they are likely to seek out subcultures which negatively impacts the main culture. For example, if an individual from the main culture is not able to get a job then they may leave to find a job elsewhere. On the other hand, the orthogonal cultural identification theory states that the acculturation within one culture does not necessarily mean that they lose their identification within another culture. High identification with any culture can be a positive experience. Oetting and Beauvais (1991) reported that any identification with a culture is independent from the other cultural identities. The researchers argued that other models place limits on how much an individual can identify with a specific culture. Whereas with the researcher’s model, there are no limits on how much an individual can identify with one culture. The orthogonal approach to cultural identify indicates that any pattern or combination is possible in relation to cultural identity and that it can be fluid. Furthermore, orthogonal identification theory allows an individual express multiple level of identification with a variety of cultures. Whereas Oetting (1993) reported that the lack of identification with any culture is problematic, and one could become prone to deviance. He concludes that encouragement with both majority and minority cultures should be reinforced and encouraged in prevention programs.

Orthogonal Cultural Identification Scale. Oetting and Beauvais (1991) discussed the development of the orthogonal cultural identification theory and they developed a scale after having developed the model within this study. Their sample included Native American and Mexican American youth. They reported that they started to develop the scale by increasing the number of questions asked to the youth to increase the internal consistency reliability. They took the information that they received from the youth sample and started to develop a scale to measure orthogonal cultural identification. In order to develop the questions for this measure
they took all aspects of the individuals’ cultures into consideration to make a culturally appropriate measure for the various cultures.

Venner, Wall, Lau, and Ehlers (2006) validated the orthogonal cultural identification scale with a Native American adult population. The Native American participants were from a reservation. The researchers were able to report that the scale had an internal consistency reliability coefficient similar to the findings found by Oetting and Beauvais (1991). They concluded that the measure is a consistent and valid measure to utilize with Native American adults. They concluded that the scale has been used with Native American individuals. The scale utilizes the orthogonal cultural identification theory, this theory allows individuals to identify with multiple cultures without putting limits on their own identity.

**Acculturation and Ethnic Minorites**

Some researchers have examined acculturation within different ethnic minority groups (Berry, 1970; Cheung-Blunden & Juang, 2008; Gersick, 2015; Gim, Atkinson, & Whiteley, 1999; Kallampally, 2005; Miller, 2007). Miller (2007) suggests that it may not be appropriate to conceptualize acculturation as a linear process. The acculturation model, he argues, most accurately explained the experiences of Asian Americans in the U.S and found that a bilinear operationalization of acculturation was strongly supported from the data of this study. He concluded that over time, Asian Americans may end up incorporating the second culture, however, they are unlikely to lose the culture of origin as they do so. He further explained that an individual may not engage in behaviors that are attributed to the original culture, however, they continue to maintain the values associated with the original culture while taking on values from the second culture. He states that there are distinct factors or processes that impact acculturation.
over time, which include values and behaviors. He added that these two factors may impact the level to which an Asian American integrates Asian and Western cultural values and behaviors.

Cheung-Blunden and Juang (2008) examined models of acculturation in a colonial context with girls whose parents were from Hong Kong. They found that a bidimensional model of acculturation was accurate among these adolescents. They found that the girls who identified more with Chinese culture (majority) were more likely to have positive family relations and have higher academic achievements compared to the adolescents who identified with more western culture. The adolescent who identified more with western culture (minority) were more likely to display misconduct behaviors and have negative familial interactions. Within this sample of adolescent girls there were benefits in adapting to the majority culture (Chinese). The adolescents were more likely to succeed in this example. This research draws the conclusion that it may be more beneficial to acculturate toward the majority culture rather than the minority.

Further, Gim, Atkinson, and Whiteley (1999) found that acculturation and ethnicity were found to be major concerns among a sample of Asian Americans who were enrolled in college. Specifically, they found Asian Americans who were low-medium acculturated were more concerned about financial issues than academic or career concerns. Whereas highly acculturated Asian Americans were concerned with academic and career concerns. They concluded that Asians Americans who are highly acculturated have adopted the norms, lifestyle and values of the majority culture and are less likely to experience a conflict between their two cultures. Theses authors concluded that Asian Americans who were more acculturated were less likely to be stressed about the cultural conflict and more likely to be concerned about careers and academic pursuits.
Finally, Berry (1970) examined the effects of contact on a group of aboriginal Australians. Particularly they found an increase in deviance, psychosomatic stress and negative attitudes towards individuals in the White culture. They found that this occurred more frequently in individuals who identified more heavily with the traditional ways of their culture.

**Acculturation and Native Americans**

Acculturation research with ethnic minorities has provided a framework for considering the outcomes of acculturation. In some studies (e.g., Cheung-Blunden & Juang, 2008; Gim, Atkinson, & Whiteley, 1999), researchers found that individuals who identified with the majority culture were less likely to experience psychological distress compared to the individuals who identified with a minority culture. However, research with Native American populations identified that levels of acculturation varied. For example, Bobb (1999) conducted an exploratory research study examining the applicability of different theoretical models of acculturation on a sample of Native Americans, specifically the Western Shoshone people. Results of the study found that a multidimensional model of acculturation most accurately fit the experiences of the Native Americans sample. This multidimensional model explains that each trait is affected independently from the others and each trait is impacted by acculturation in its own way. These traits can be rejected, modified, or added to the culture of the Native Americans. This model supports the notion that different traits can be adapted within the culture if needed in order to benefit the community. The results of this study are more consistent with the orthogonal model of acculturation (i.e., Oetting & Beauvais, 1991).

Additionally, Flynn, Olson, and Yellig (2010) conducted a qualitative study to examine acculturation within a sample of Native Americans who moved from a tribal setting to a predominantly White, postsecondary education setting. They found from individual interviews,
focus groups, and artifact analysis that many of the themes centered on maintaining aspects of their tribal identity in the predominately White postsecondary education settings. They concluded that these Native Americans utilized a strengths-based acculturation in order to maintain their tribal identity in the face of adversity. Overall, these Native American individuals used different approaches to acculturate to the White culture, however, they maintained their own tribal identity in the process.

Weaver and Brave Heart (1999) examined whether seven Northeastern Native American communities, aged 8 to 12 years old, identified with more than one culture the participants. They used two reservation samples, the Powhatan Renape Nation in New Jersey and the St. Regis Mohawk Nation in New York. They also included participants from North American Indian Center of Boston, Rhode Island Indian Council, American Indians for Development, Central Maine Indian Association, and the Native American Education program, which are all urban agencies that serve Native American communities. They used the orthogonal cultural identification scale and found that lower scores indicated alienation from a culture, whereas higher scores indicated connection with a culture. They found that the youth can and do identify strongly with multiple cultures, a finding that aligns well with the orthogonal cultural identification theory proposed by Oetting (1993).

This approach of maintaining your tribal identity was also explored in a study by LaFromboise, Albright, and Harris (2010) which examined the relationship between acculturation, hopelessness, and where they physically reside among a sample of Native American adolescents. They found that adolescents who identified with multiple cultures were less likely to feel hopelessness compared to their counterparts who identified with Native American culture or no particular culture at all. They suggested that their findings added support
to the theory that Native Americans have dual patterns of cultural identity that exist without negatively impacting each other. They added that identifying with a culture is beneficial, however, not identifying with any culture is problematic. The researchers reported that while identifying with both cultures correlated with lower scores of hopelessness, they found that individuals who identified with no culture had significantly higher scores of hopelessness than the other groups. They also found that Native Americans who were living on the reservation were less likely to feel hopelessness compared to their urban and rural, nonreservation counterparts. Furthermore, they found that feelings of hopelessness were higher among residents of rural areas. They concluded that living on the reservation creates a sense of sociocultural familiarity and a feeling of a collective efficacy.

In regard to coping mechanisms, McCloskey (2014) examined the relationships among levels of acculturation on the use of humor styles within a sample of Native Americans. Specifically, the study was an exploratory strength-based approach to research examining humor as a resilience factor among Native Americans. She found that there was a weak relationship between levels of acculturation and adaptive or maladaptive humor styles. She found that as level of acculturation increased, then the use of maladaptive and adaptive humor styles decreased. She suggested that as Native Americans who identified with mainstream culture increased, the use of humor decreased. She added that the use of humor is a predominate fixture within Native American culture and by utilizing humor, Native Americans are more likely to decrease with the identification of mainstream culture.

In all, there has been limited acculturation research with Native Americans. As evidenced above, the research that has been completed studies different aspects of culture. Specifically, some researchers focused on identify aspects, humor, and historical loss in Native Americans,
each of which in one aspect of culture. Understanding the connection between culture and acculturation within Native Americans is beneficial to understanding the importance of culture within this group.

**Depression**

The American Psychiatric Association (2013) characterized major depressive disorder (MDD) as having difficulties with a depressed mood and diminished pleasure or interest in most activities. Either of these two symptoms must occur most days than not over a two-week period. At least one of these symptoms is required in order to receive a diagnosis of depression. Additionally, other symptoms include significant weight loss or gain, psychomotor agitation or retardation, fatigue, insomnia or hypersomnia, excessive guilt, lack of concentration, feeling worthlessness and recurrent thoughts of death or suicidal ideation. An individual must have at least five out of the nine symptoms present in order to qualify for a diagnosis of a Major Depressive Episode (pp. 160-161).

The prevalence rates vary by age among the general population, however, they are approximately 7% for MDD (American Psychiatric Association, 2013). Furthermore, they specified that there are higher prevalence rates among adolescents, females, and older adults. McCarron, Vanderlip, and Rado (2016) also reported that among the general population depression estimates ranged from 5-10%; however, they added that rates of depression can be as high as 40% in some clinical populations including those in specialty mental health care and primary care settings.

Ohayon (2007) found that among individuals from both California and New York, peak prevalence rates occurred among individuals aged 45 – 54 years old. Additionally, marital status
and education level are two predictors of MDD. The American Psychiatric Association (2013) reported that some precursors include first-degree family members having a diagnosis and adverse childhood experiences. There is a two- to four-fold increase in developing MDD within one’s lifetime if the individual has a first-degree family member who was diagnosed with MDD.

The American Psychiatric Association (2013) reported that somatic symptoms are likely to be the primary concern among individuals from different cultures. If an individual is high in neuroticism than there is a 40% increase in likelihood that the individual may develop MDD. Additionally, Gotlib and Lee (1989) examined the social functioning of individuals in the general population, who are depressed. The researchers found that patients who had a diagnosis of depression were more likely to have impaired social functioning in comparison to the individuals who did not have a diagnosis of depression.

Furthermore, if the individual has a history of suicidal thinking and/or behavior there is an increase of suicide attempts or threats, however, completed suicides are not often preceded by unsuccessful attempts. Additionally, there is an increase in completed suicide if the individual is male, lives alone, and has primarily feelings of hopelessness. McCarron, Vanderlip, and Rado (2016) added that increased risk factors for suicide include other mental health conditions, specifically alcohol use disorders, which are present in 90% of all persons who die by suicide.

**Depression and Ethnic Minorities**

Jackson-Triche et al. (2000) examined the difference in prevalence of depressive disorders among a variety of ethnic groups. They utilized the Medical Outcome Study and Diagnostic Interview Schedule – Depression Section to measure depression within their study. Before they adjusted for a variety of demographic factors, they found that African American and
Hispanic individuals had the highest rates of depression. Asian Americans had the lowest rates of depression. However, once they adjusted the factors, they found that White individuals were more likely to be depressed and African Americans were the least likely to report suicidal ideation.

Lewis-Fernandez et al. (2005) wanted to understand depression among individuals who identified with being Hispanic. They concluded that underdiagnosis may be due to literacy barriers, cultural idioms of distress, and somatic presentations. This study focused on primary care facilities and found that Hispanics were often agreeable to psychopharmacological treatment. In addition, they concluded that Hispanic persons may prefer psychotherapy or a combination of therapy and medications. Barriers in regard to language and cultural aspects can greatly impact individuals receiving treatment when they go to primary care facilities especially if primary care facilities do not try to overcome these barriers by hiring an interpreter.

Additionally, Budhwani, Hearld, and Chavez-Yenter (2014) examined the presentation of MDD among ethnic minorities. They utilized the lifetime occurrence of major depressive disorder to measure depression within these groups. They found that certain immigrants, specifically Afro-Caribbean and Asian persons, are less likely than their counterparts to develop depressive symptoms. Budhwani, Hearld, and Chavez-Yenter (2014) also found that individuals who engaged in excessive alcohol consumptions had higher rates of depression than individuals who were not excessively drinking alcohol. These studies examined which ethnic minority population were more likely to present with depressive symptoms.

**Center Epidemiologic Studies Depression Scale (CES-D) and Ethnic Minorities.**

Factor analysis for the CES-D has been completed in a variety of different ethnic and minority groups. Kim et al. (2011) examined a factor analysis of CES-D with a variety of ethnically
diverse populations. They found across all of the ethnic groups (African American, American Indian, Asians, Whites, and Hispanics) that depressed and somatic affects factors were uniquely defined by each group. They found that the positive affect factors were equivalent between three groups (Asians, Whites, and Hispanics) and different among African Americans. Specifically, among African Americans two more factors were found, in addition to the original four factors, which included demoralization and distress. Additionally, the African Americans’ and Asians’ interpersonal factor results were similar. The authors argued that the four factors were present among each ethnic group except the Asian group which had a different factor loading for the interpersonal problems. However, they stated that each factor varied between the groups because each group had different levels of variance accounted for across the four factors.

Other studies such as Ying (1988), examined the psychometric properties of the CES-D in a group of Chinese American individuals. The researcher reported a high correlation between negative affect and somatic symptoms. Additionally, the researcher stated that there was an increase in depressive symptomatology in individuals who reported a lower socioeconomic level. The high correlation between negative affect and somatic symptoms is often found within ethnic minorities when researchers utilize the CES-D.

Furthermore, Arbona, Burridge, and Olvera (2017) examined the original CES-D factor model to a revised shorter version of the CES-D, which was developed by Carleton et al. (2013), within a group of undergraduates that identified as Hispanic. The researchers found that the revised shorter version of the CES-D that comprised of three factors was supported in both genders of Hispanic undergraduates compared to the original four factor model of the CES-D.

Whereas Lacasse, Forgeard, Jayawickreme, and Jayawickreme (2014) examined the factor structure of the CES-D in a sample of Rwandan adults who survived genocide. The
authors found that a two-factor model for the CES-D, which included depressed affect, somatic symptoms, and interpersonal concerns in one factor and positive affect as the other factor more accurately represented the experiences of the Rwandan adults who survived the genocide. Each of these findings for the CES-D differentiate depending on which ethnic group is being researched. The CES-D is also researched with Native Americans and will be used within the current study. The CES-D will be used to understand which symptoms these Native American individuals are expressing and their association with the other factors being explored within this study.

**Depression and Native Americans**

Typically, depression is diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) criteria. The following researchers (Cohen, 2008; Gray & McCullagh, 2014; Manson, 2000; Manson, Shore, & Bloom, 1985; O’Nell, 1996; Shore et al., 1987) have examined depression in samples of Native Americans, by Understanding the nuances between tribes in regard to mental illness and depression this can provide beneficial information to researchers.

Furthermore, Cohen (2008) reported that Native Americans, in general, disliked diagnostic labels because it implies a collective experience across multiple groups of people. According to the U.S. Census Bureau (2012) there are 567 federally recognized tribes. That means across the 567 different federally recognized tribes are a multitude of different tribal customs and cultures that are lived through each tribe. The variety of customs and cultures among the tribes makes it difficult to collectively agree that all Native Americans experience the same diagnostic label in similar ways.
Shore et al. (1987) found that there is a core depressive syndrome among tribes within the individuals who have been to treatment in the past, however, depression may be characterized differently within the tribes. The researchers added that depression was present within their group of Native Americans, however, when researchers use a lens of depression, as described in the westernized construct of the DSM, to look at a particular group of individuals who are Native American, they are a higher likelihood one would find it present among the population they are researching. Shore et al. (1987) deduced that the findings indicate that MDD is a common occurrence among their research group of three different Native American tribes representing Plains, Plateau and Pueblo Tribes, which were de-identified within the study. However, they stated that given the cultural differences that occur among the three tribes they studied, that depression may not be the primary syndrome among these Native American individuals. Furthermore, they stated that there was not a word within their various languages that equated to depression. This lack of language to describe depression, suggests that may not be a syndrome that individuals in this culture express frequently even though the symptoms of MDD were present among this group.

Manson, Shore, and Bloom (1985) conducted a study with the Hopi people of Arizona in order to understand mental illness. The researchers asked the Hopi to explain diseases that affected the mind. The Hopi identified five categories of illness which included worry sickness, unhappiness, heartbroken, drunkenlike craziness with or without alcohol, and disappointment: pouting. Worry sickness is most closely connected to a mental illness. However, this often has special significance when it is associated with personal sins, spiritual imbalance, witchcraft, misconduct, and specific supernatural occurrences. Worry sickness is often categorized as exhaustion, insomnia, poor appetite, dizziness, argumentative behavior, and increased physical
complaints. *Unhappiness* is characterized as being tearful, unable to sleep, voice an increase in problems with physical health, and loss of appetite. Unhappiness occurs from a death of a family member or from a Hopi realizing wind devastated his crops. *Heartbroken* is characterized as having acute sadness that is related to a sudden situation like being ignored by one’s mother. *Drunkenlike craziness* with or without alcohol is characterized as worry, mood swings, visual and auditory hallucination, anger, argumentativeness, and cognitive disorientation. This is often associated with people who struggle with alcohol use or an individual with a severe mental illness. *Disappointment or pouting* is characterized as loneliness, anger, thoughts of death, and suicidal ideation. It is often used to describe the different stages of disappointment. Each of these illnesses is discussed within the culture and has different variations of how they can be caused and presented. Although the Hopi may not have a word for depression, the symptoms of depression are present within this culture. Continuing to understand how the different tribes understand and conceptualize depression can provide researchers with a greater understanding of how depression impacts each tribe and the variations among each of them.

One researcher went further to identify and understand the nuances of what depression meant for a Native American tribe in Montana. O’Nell (1996) completed a qualitative study with Native American elders from the Flathead reservation of Montana. The researcher was investigating how Native American older adults and elderly discuss and characterize depression. Results of the study found that depression could be characterized as three different types of loneliness, including feeling bereaved, feeling aggrieved, and feeling worthless. She described the cause of feeling bereaved which includes death of relative, song, tradition, or homesickness. This feeling of bereavement causes one to feel alone, feel heaviness in the chest, have high blood pressure, experience tearfulness, and an enduring state; which would cause one to isolate, go into
shock or a trance, and could cause death. The second type of loneliness is feeling aggrieved which is caused by perceived injustices, rejections, and neglect. The second type of loneliness causes an individual to feel cut off, irritability, bitterness, pouting, and transient state; which could cause an individual to have drinking bouts, suicide gestures, and abusive behaviors. Finally, the last type of loneliness is feeling worthless, which is caused by multiple instances of disintegration of social world. This would cause one to feel abandoned, which could cause chronic drinking, recklessness, self-destructive acts and suicide. The researcher reported that these different types of loneliness can help others understand the complexity of the Flathead Native Americans’ symptoms of depression and the beliefs associated with this diagnosis.

Furthermore, O’Nell (1996) described the nuances of each version of the DSM’s description of depression. The researcher reported that the DSM – III version of depression lacked an appropriate conceptualization of the Flathead Native Americans’ experience. The researcher developed a culturally sensitive depression diagnosis following this lack of conceptualization from the DSM. The researcher reported that the culturally responsive depression diagnosis is a culture-specific diagnostic criterion for pathological mood disturbance among the Flathead Native Americans. She described it as having pervasive experiences of loneliness, fear of abandonment that colors their whole psychic life and separation. The mood disturbance can be expressed from the client by describing others’ lack care towards somebody or lack of care towards others. Additionally, this can be evidenced by having relationship difficulties with close friends and relatives which may cause isolation, resentment, jealousy, and stinginess. Additionally, it should also include two or more of the following symptoms: appetite disturbance, lack of sleep, fatigue, difficulty concentrating, a crisis of faith, suicidal ideation, plan or attempt, and high levels of help-seeking for oneself or by others for oneself. O’Neil
(1996) took into consideration the Flathead Native Americans’ perception and understanding of depression and conceptualized it a criterion for other clinicians. For this particular tribe, this set of criteria is an accurate representation of how their depression symptoms manifest. In regard to other Native American tribes, this representation may not accurately represent their experiences. However, as researchers, such studies allow for a closer understanding of the differences that each tribe brings regarding depression.

Although depression may manifest differently or be understood differently among different tribal groups, many components or symptoms of what DSM described in major depressive disorder can be found within Native American communities (Manson, 2000). Dinges et al. (2000) reported that rates of depression decline with increasing age with it being at 58% for adolescents to 32 – 45 % in adulthood. Manson (2000) added that the diagnosis can impact social contacts, productivity at work, and cause an increased risk of suicide. Furthermore, Manson (2000) stated that rates of suicide completion are high in some communities. However, the researcher added that some accidental deaths may be seen as completed suicides within this population, which can cause an increase in this rate.

Gray and McCullagh (2014) examined suicide in Indian country. They reported that many risk factors among American Indians are similar to other groups. They reported that presence of mental illness, past history of suicidal behavior, and traumatic experiences can increase the risk of suicide. Gray and McCullagh (2014) reported that a history of colonization and forced acculturation have caused multiple experiences of loss and community disconnection. These factors are significant predictors of Native American suicide. Additionally, substance use, alcohol in particular, can increase the risk of suicide within this population by increasing the severity of the depressive symptoms (Manson, 2000).
Center for Epidemiologic Studies Depression Scale (CES-D). The diagnostic criteria from the Diagnostic Statistical Manual of Mental Disorder Fifth Edition (DSM-5) will be used to understand whether they participants are exhibit symptoms of depression in the current study. The DSM-5 criteria of MDD will be observed using the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a self-report scale that is used for both clinical and research purposes in multiple populations (Santor, Gregus, & Welch, 2006). Radloff (1977) reported that it was shown to have high internal consistency when developed in the general population. The researcher reported four factors from this analysis which included depressed affect, positive affect, somatic and retarded activity, and interpersonal. Stansbury, Ried, and Velozo (2006) found within their sample of the general population that specificity of the CES-D was good, whereas the sensitivity to the diagnosis of depression was moderate. Carleton et al. (2013) examined the factor validity of the CES-D for the original 20-item model within the general population. The authors found that there was an item inflation among individuals who identified as women. They identified a three factor, 14-item modification of the CES-D, which they report as being more accurate to the current diagnostic criteria for depression. The authors proposed three factors which include negative affect, anhedonia, and somatic complaints. This three-factor model with a 14-item modification and the original four factor model with 20-items has been used with specific ethnic population in order to measure which model is more representative among different ethnic groups.

CES-D and Native Americans. As stated above, the CES-D has been utilized with a variety of different ethnic groups. The focus of the current study is the CES-D with Native American populations. Dingess et al. (2000) discussed a high conceptual overlap between depressive affect and somatic symptoms among Native Americans in their study of the CES-D.
Somervell et al. (1992) examined the factor structure of the CES-D with Native American individuals from a Northwest Tribe. The researchers found that within the factor analysis there was a high correlation between depressed affect and somatic distress. The researchers deduced that these two factors should be collapsed into a single factor. Whereas, Chapleski, Lamphere, Kaczynski, Lichtenberg, and Dwyer (1997) examined the factor structure of the CES-D among north eastern Native Americans aged 55 and older. The authors reported that the 12-item modified version of the CES-D provided a better fit for this population in comparison to the original 20-item version. The authors also reported that the modified 12-item version had similar factor loadings to the original 20-item version of the CES-D. These authors deduced that the original factor loadings were accurate, however, the number of items were not representative of this population of older adults.

In regard to college students and the CES-D, Beals et al. (1991) examined the factor structure of the CES-D with Native American college students. They found that among the three different factor structures that combined two factors from the original four factor model which encompassed depressed affect and somatic in one factor, worked well with the data. They found that the single factor design that they proposed did not accurately represent the college aged students. The researchers found a high correlation between depressed affect and somatic complains, which they reported could be due to the increased representation of somatic complaints being more heavily reported compared to depressive affect in Native American populations. These researchers also found that a three-factor model more accurately represented the model of these Native American undergraduate students. Iwata and Buka (2002) examined the manifestation of depressive symptoms among undergraduate students using the CES-D. They
found that Native American students more often reported somatic symptoms over depressive symptoms.

The CES-D was researched among the Native American adolescent population. Manson et al. (1990) examined the utility of the CES-D with adolescent populations. The authors found that the internal consistency reliability coefficient ($\alpha = 0.82$) was similar to other adolescent populations who utilized this measure. The researchers found higher CES-D scores among girls compared to adolescent boys in this sample. The girls had a higher tendency to report negative affect and interpersonal difficulties whereas the adolescent boys were less likely to report them. Dick et al. (1994) explored the factor structure within the CES-D among Native American adolescents, ages ranged from 13 – 20. The authors condensed he four-factor model into three by combining depressed affect and somatic symptoms into one factor. This study found similar effects to others who examined the factor structure with other minority groups. The researchers reported that the high correlation between negative affect and somatic complaints is related to non-western conceptualization of depression and how they are more likely to describe depression in somatic symptoms compared to psychological terms.

Billow (2008) did a factor analysis of the CES-D with a Native American population and concluded that there should only be two factors instead of the original four factors. The researcher reported that they found depressed affect and somatic signs were one component, with the other component being positive affect.

Overall, there are conflicting findings regarding the CES-D among a multitude of different age and tribal groups within the Native American population. These findings need to be considered within the current study.
Depression symptoms are found within the Native American population. However, how the symptoms are represented appears to vary among the different tribes. The proposed study will examine depression within a tribe from the Northeastern United States that may present different symptoms from the tribes previously researched. However, his research also suggest that the tribe may present more somatic symptoms and may be more likely to be represented by three factors rather than the original four factors in the CES-D. These findings will be taken into consideration in the analysis.

Furthermore, given the prevalence of depression symptoms among Native Americans, it is crucial as a researcher to continue to identify protective factors that are used among Native Americans to cope with depressive symptoms among this group.

**Acculturation and Depression**

Researchers (Gonzalez & Gonzalez, 2008; Hwang & Myers, 2007; Parker et al., 2005; Torres, 2010) examined the relationship between depression and acculturation with various minority groups. Hwang and Myers (2007) examined the relationship between acculturation and prediction of major depression in Chinese Americans. They found that individuals who identified as more acculturated reported more exposure to social conflicts, gradual loss in protective cultural factors, and negative life events, but no conclusion could be made about depression.

Parker et al. (2005) examined the relationship between depression and acculturation in a sample of Chinese participants that lived in Australia. The researchers utilized the Self-Identify Acculturation Scale to measure acculturation within their sample. The researchers found that low rate of depression and somatization of depression in the participants were likely influenced by culture, specifically if they scored higher on the acculturation measure. They added that the
Chinese participants were less likely to report depression episode compared to the control participants. Furthermore, the Chinese individuals who spoke Chinese were less likely than the Chinese individuals who spoke English to report symptoms of depression. Finally, the Chinese participants were less likely than the controls to identify depression episodes as a disorder and seek help.

Gonzalez and Gonzalez (2008) examined acculturation and mental health among individuals of Mexican origin. They found that participants who scored lower on the acculturation measure, Acculturation Rating Scale, were significantly more likely to report depression symptoms. However, individuals who felt like they had more family happiness than the Euro-Americans were more likely to report lower depressive symptoms. Within this sample of individuals with Mexican origin family happiness was a protective factor against depression symptoms.

Torres (2010) utilized acculturation, acculturation stress and coping to predict various levels of depression among Latinos. The researcher utilized the Acculturation Rating Scale for Mexican Americans-II to measure acculturation. The researcher found that Latinos that orientated towards U.S. mainstream culture tended to experience marked levels of depression and connections to the Latino culture protected against Latinos experiencing moderate levels of depression. The researcher concluded that the likelihood of experiencing a mental health difficulty increases if an immigrant moves to the U.S. and their ethnic group is devalued. They added that stressors unique to moving to the U.S. like learning a new language and acculturating to the American society can have an impact on the amount of depression symptoms reported. While some researchers were unable to identify a relationship between depression and acculturation (Hwang & Myers, 2007), some researchers were able to find a identify the original culture as a protective factor against symptoms of depression (Gonzalez & Gonzalez, 2008; Parker et al., 2005). Given these
conflicting studies, more research needs to be done in with these two topics before a conclusion is able to be drawn between depression and acculturation.

**Acculturation, Depression, and Native Americans**

Several researchers have examined the relationship between acculturation and depression in Native American populations (Hamilton, 1996; Scheel, 1999; Whitbeck et al., 2002). In regard to urban Native Americans and Alaska Natives, Hamilton (1996) found that Alaskan Natives who are living in urban areas tend to have a higher score of acculturation measures. Alaskan Natives who moved to cities were more likely to lose their cultural awareness and have lower acculturation scores. They concluded that this loss of cultural awareness may be caused by increased stress. Additionally, they found that participants who were in rural areas were more depressed compared to their urban counterparts. However, this was not as significant when gender and employment status was taken into consideration. When gender was taken into consideration, men in urban setting were more likely to be depressed, but females living in urban areas were much less depressed. Interestingly, the overall results of the study found there was no association between depression and acculturation. The researchers reported that it may have been due to the measure in which they used to identify depression within this sample.

Whitbeck et al. (2002) examined perceived discrimination and traditional practices on depressive symptoms with Midwest Native Americans. The authors found that discrimination was strongly associated with depressive symptoms. Additionally, the authors found that by utilizing traditional practices there was a negative association with depressive symptoms. They also found that stronger ties to cultural practices were less susceptible to perceived discrimination. Whereas weaker ties indicated they were more susceptible to depressive symptoms.
Scheel (1999) found that Native American college students who were thinking about suicide more frequently had a higher frequency of thoughts of hopelessness and depression symptoms than their non-suicidal peers. They found that their measure of suicide risk was not dependent on cultural identity to the majority or minority culture. Overall, within these two studies they found that there was no association between acculturation and depression within Native American populations. However, more research needs to be conducted before any conclusions are drawn in this manner.

Resilience

Bonanno (2004) defined resiliency as having the ability to maintain stable psychological and physical functioning while dealing with events that are highly distressing. On the other hand, Stout and Kipling (2003) defined resiliency as having an individual be able to “spring back from adversity” regardless of the psychological, emotion and physical distress. Additionally, Wallace and Swaney (2009) defined resiliency as a process of adaptation. Zautra, Arewaskilporn, and Davis (2010) further defined resiliency as the adaptive response to adversity, while focusing on sustainability, growth, and recovery. Each of these definitions of resiliency are focusing on coping while dealing with adversity. The definition that will be utilized for the proposed study will be Zautra, Arewaskilporn, and Davis (2010) because it focuses on the growth and recovery an individual can sustain through the process of an adverse event. The definition will be used over the others because it encompasses all of the other definitions of resiliency into one and focuses on the growth individual can sustain through the adverse event.

There are several ideas about resiliency and what contributes to its development. Rutter’s (1985) believes that resiliency depends on the individual’s assessment of the situation and the tools that one uses utilizes is dependent on the situation. Masten (2001) agrees with Rutter’s
ACCULTURATION, SELF-COMPASSION, AND DEPRESSION IN NA  35

(1985) definition, however, she states that resiliency occurs naturally among ordinary human adaptive responses, which develops as children. For example, Chawla, Keena, Revec, and Stanley (2014) found children who were playing in more naturalistic environments, including wooded areas, green fields, etc., were more likely to develop resiliency techniques than their counterpart who did not. In regard to Native American adolescents, LaFromboise et al. (2006) identified protective factors including family, culture and community for their sample of adolescents. Additionally, Stiffman et al. (2007) reported that adolescents who grew up on the reservation were less likely to utilize perceived individualized strengths as resiliency compared to their urban counterparts.

These ideas regarding what contributes to resiliency seem to be dependent on development throughout childhood. However, Masten (2001) argued that resiliency factors are common and ordinary among a variety of people, and not solely developmentally based. For example, Whitbeck et al. (2002) found that Native Americans who were participating in cultural practices were less effected by depression and discrimination compared to their counterparts who were not participating in these practices. These researchers found that culture was an important aspect to these individuals’ development of resiliency factors. Specifically, those who participated in traditional practices, beading, cultural traditions, spoke their language, and attended pow wows. Furthermore, HeavyRunner and Morris (1997) found that among Native American individuals, tribal identity, spirituality, oral tradition, elders and ceremonies were important for developing resiliency within their sample of Native Americans.

Resiliency among Native Americans has been associated with culture in a variety of different Native American age groups (Whitbeck et al., 2002; Bals et al., 2011; Kaufman et al., 2013). Each of these researchers noted different cultural practices that were important for the
management of depressive symptoms. These resiliency factors were heavily dependent on the individual’s culture. The present study will examine the effect culture has on the relationship with depression symptoms. Given that culture is continually found as a resiliency factor in a variety of age groups this current research will be beneficial increasing understanding of resiliency, culture and depression in a sample of Native American individuals.

**Self-Compassion**

Neff (2003a) explains that self-compassion is originally derived from compassion, which means to be touched by the suffering of others and being aware of others pain, while having kindness towards others. Compassion was originally derived from Buddhism. Self-compassion is being open to your own and others suffering, while being aware of it and being kind towards yourself and others. Neff (2003a) explained that self-compassion is comprised of three positive concepts: self-kindness, common humanity, and mindfulness. Neff (2003b) provides an opposite for each of the components of self-compassion, which includes self-judgment versus self-kindness, isolation versus common humanity, and over-identification versus mindfulness, each of these components are bipolar continuum of the components. Self-kindness is characterized as extending kindness and understanding to oneself. An example of this would be telling oneself that they can get a better grade on the next assignment after receiving a lower grade than they expected. Whereas, self-judgement, the opposite of self-kindness, includes being demeaning, hostile or critical towards oneself or a specific aspect of one’s self.

Common humanity is characterized as seeing one’s experiences as being a part of a larger experience among humans. Whereas some might see it as separating and isolating. Specifically, this entails the awareness that suffering is considered a universal facet that everybody experiences rather than an isolated incident that only one individual experiences. Furthermore,
that a variety of events could cause suffering and that it is experienced by everybody. An example of this would be somebody having a bad day, instead of thinking the world is out to get them, they could think that everybody has a bad day and it’s common among everybody. 

Whereas, isolation, which is the opposite of common humanity, is when individuals who are struggling cut themselves off from others and isolate themselves. They often feel like they are alone in their struggle and are shameful of their emotions.

Finally, mindfulness is characterized as holding one’s painful thoughts and feelings in a balanced awareness within ourselves rather than over-identifying and fixating on them. An example of mindfulness would be to have one notice their thoughts with no judgement attached and allow that thought to pass. Whereas, over-identification, which is opposite of mindfulness, involves ruminating on one’s downfalls and focusing on one’s limitations which prevents one from experiencing the joy, or other events and opportunities in the immediate present.

In regard to research surrounding self-compassion, Neff (2003b) reported that women endorse having significantly less self-compassion than men do. Neff (2003b) was validating the self-compassion scale. They presented the scale to two different samples of undergraduate students, which in total encompassed 260 men and 400 women, and found that women endorsed significantly less self-compassion than man in both studies. Specifically, women were more likely to engage in self-judgement, feel isolated when in difficult situation, and to less mindful and over-identify with negative emotions than men. Self-compassion was moderately correlated with self-esteem. Individuals who have more self-compassion are likely to have an increased sense of self-worth compared to others who are more judgmental and critical of themselves. In addition, those who endorsed a high level of self-compassion were more likely to have sense of true self-worth, which is when somebody is being their authentic self rather than trying to meet a
set of standards. Expressing one’s authentic self can be difficult for some individuals who are struggling with mental health diagnosis. The researcher found that self-compassion has a significant negative correlation with anxiety and depression. Overall, self-compassion is positively correlated with overall well-being.

Gerber, Tolmacz, and Doron (2015) explored the association between self-compassion and two different forms of concern. They found that self-compassion was negatively associated with pathological concern. Pathological concern focuses on having difficulties in interpersonal and emotional domains and a lack of overall well-being. The researchers did not find a relationship between self-compassion and healthy concern. Healthy concern is characterized as the feeling warmth, compassion and concern for another person. The researchers added that individuals who are high in self-compassion have a high level of well-being who are motivated by their own motives. Whereas, individuals who are high in healthy concern receive satisfaction of their psychological needs by relatedness and empathy towards others rather than a sense of agency.

In regard to the self-compassion scale, Brenner, Heath, Vogel, and Crede (2017) examined the factor structure of the most widely used Self-Compassion Scale (Neff, 2003). The authors examined the single factor with six dimension of this scale and concluded that there are two factors comprised of within the scale. They added that the two factors include self-compassion and self-coldness. Self-compassion factor encompasses self-kindness, common humanity, and mindfulness. Whereas self-coldness factor encompasses self-judgement, isolation, and over-identification. The researchers argue that the self-compassion and self-coldness are distinct constructs and that only 13 items measure self-compassion rather than the original 26 items. They state that their factor analysis concluded that only 13 items (out of the original 26
items) accounted for variance in associated with depression. Many researchers have found have a negative association between depression and self-compassion, however, Brenner et al. (2017) are the only researchers have argued for a shorter measure.

In regard to ethnically/racially diverse individuals, Zhang et al. (2019) wanted to further examine the psychometric properties of Self-Compassion Scale within an racially/ethnically diverse participants. Their sample included 248 African American individuals. They utilized the Self-Compassion Scale (Neff, 2003b) and tested multiple models which included: one-factor, two factor, six-factor correlated, higher order, bifactor, and two-bifactor. They found that three out of six models (two-factor, two-bifactor, six-factor correlated) fit within this group of individuals, however, the alternative six factor model better represented this sample of individuals. The alternative six-factor correlated model included using the six dimensions as factors that are correlated and multidimensional rather than the self-compassion scale encompassing a single factor of self-compassion. They reported that the measure was valid and reliable within this ethnically/racially diverse group.

*Self-Compassion and Mental Health*

Neff and McGehee (2010) wanted to expand current research on self-compassion to encompass both adolescents and young adults within the research. They were able to find that among adolescents as well as the young adult group, self-compassion was strongly associated with well-being. They also found that there was not a significant difference between the two groups in regard to levels of self-compassion. They found that self-compassion was a significant predictor of mental health within their sample. Specifically, individuals higher in self-compassion reported less depression and anxiety. Individuals with high self-compassion reported
more social connectedness. Overall, these researchers found that self-compassion was beneficial for the mental health of their sample.

A examined the relationship between self-compassion and psychological health was with Neff, Kirkpatrick, and Rude (2007). They found that self-compassion helped to protect against the anxiety caused when someone is self-evaluative. They found that individuals who increased self-compassion during their month-long study increased their social connectedness and decreased depression, rumination, self-criticism and anxiety. They concluded that by increasing self-compassion an individual can decrease their self-judgment which will promote psychological resiliency. Moreover, Odou and Brinker (2014) examined the relationship between self-compassion and rumination. They found that self-compassion reduces negative affect. They found that writing in a self-compassion way increased their mood during their study. They concluded that having clinical populations utilize this technique in therapy could be helpful to boost overall mood given that the participants mood changed quickly within 10 minutes of writing. Overall, utilizing self-compassion techniques can be beneficial for decreasing anxiety within individuals who tend to ruminate.

Neff and Vonk (2009) examined the association between self-compassion and self-esteem in relation to psychological functioning. Self-compassion and self-esteem were distinct concepts from each other. Additionally, self-compassion was a more stable predictor of self-worth compared to global self-esteem over an 8-month period of time. In comparison to global self-esteem, self-compassion had a stronger negative association with social comparison, self-rumination, anger, public self-consciousness and a need for cognitive closure. Furthermore, the researchers stated that self-esteem is positively correlated with narcissism. Whereas, with self-
compassion there is no relationship with narcissism. Overall, self-compassion was a more stable predictor of self-worth and healthy attitude towards oneself.

In regard to emotional responses and self-compassion, Leary, Tate, Adams, Allen, and Hancock (2007) examined ways in which self-compassionate people utilize both cognitive and emotional processes to deal with unpleasant events. They found that individuals who rated higher on self-compassion are less likely to be hard on themselves following negative events. They found that individuals who were more self-compassionate were less likely to catastrophize, personalize, and use greater equanimity in scenarios that were presented to them. They also found that individuals who are more self-compassionate are more likely to respond to both neutral and positive feedback compared to less self-compassionate people who only respond to positive feedback. They researchers found in Study 4 that people high in self-compassion were more likely to rate a performance they gave similarly to observers compared to people rated low in self-compassion. In Study 5, they induced self-compassion by having people use the terms self-kindness, common humanity, and mindful acceptance to think about personally relevant negative events. They found that people who utilized self-compassion reported lower negative affect than the other participants when thinking about the negative event. Additionally, the researchers found that individuals were more likely to discuss how their own personal characteristics could have played a part in the negative event coming to fruition. The participants were able to recognize that they made a mistake and that it was something that happened to everybody so they should not feel badly about it. Moreover, they also found that people inducing self-compassion was more effective among the participants who indicated they were lower in self-compassion. They deduced through all of the studies they completed that self-compassion is a moderator to distressing situations that may cause an individual to feel shame, rejection, and
embarrassment towards a negative event. They found that self-compassion was associated with lower negative emotions in real, imagined, and remembered events and that by inducing self-compassion people are able to cope and take responsibility for the negative events.

**Self-Compassion and Acculturation**

After review of the literature, there appears to be limited research examining the relationship between self-compassion and acculturation. De Anda (2019) examined the relationship between acculturation, self-compassion and insecure attachment among Mexican Americans. They had 105 participants complete an online survey through Qualtrics which included the *Acculturation Rating Scale for Mexican Americans- II* (Cuellar et al., 1995) to measure acculturation, which measures Mexican Orientation Subscale and Anglo Orientation Subscale, and the Self Compassion Scale (Neff, 2003b). This study found that acculturation did not moderate the relationship between self-compassion and attachment. They concluded that degree of acculturation did not have an influence on attachment styles and self-compassion. However, this researcher found that self-compassion was higher in individuals who were born in Mexico than those individuals who were born in the U.S. They concluded that individuals who were born in Mexico were more likely to treat themselves with self-compassion than their counterparts. The researcher added that Mexican American individuals who are born in Mexico tend to have lower rates of psychiatric disorders than their U.S. born counterparts.

Similarly, Rivera (2017) examined the relationship between self-compassion, attachment, acculturation, life satisfaction, and ethnic identity among a sample of Latinos. The researcher had the 126 participants to complete multiple scales using an online format. The participants were asked to complete the Self-Compassion Scale (Neff, 2003b) and the Abbreviated Multidimensional Acculturation Scale (AMAS). The AMAS is a 42-item scale that validated on
a sample of Latino students, which measured Latino Ethnic Identity, Spanish language scale, and overall culture of origin. They hypothesized that individuals who identified as securely attached would report higher levels of self-compassion and that Latinos who identified as highly acculturated were more likely to endorse higher levels of self-compassion. Additionally, they also hypothesized that acculturation serves as a mediator for higher levels of self-compassion among Latinos. Rivera (2017) found that Latino individuals who identified as securely attached reported higher levels of self-compassion. Whereas, in regard to self-compassion and acculturation they did not find a direct relationship between the two concepts. Even though no relationship was found between self-compassion and acculturation, they concluded that attachment played a positive role in the developments of acculturation and self-compassion among Latinos.

Further, Iwabuchi (2018) examined whether self-efficacy or self-compassion moderates the relationship between acculturation and levels of social anxiety in bicultural individuals. The researcher also looked at bicultural self-efficacy moderates the relationship between acculturation and social anxiety and whether self-compassion moderates the relationship between acculturation and social anxiety. She administered her study online to 194 bicultural individuals. Her measures included the Stephenson Multigroup Acculturation Scale, which is 32-item scale that measures ethnic society immersion and dominate society immersion, and the Self-Compassion Scale (Neff, 2003b). She found that self-compassion, acculturation to mainstream culture, independent self-construal and bicultural self-efficacy were all negatively correlated with social anxiety. She also found that self-compassion was positively associated with acculturation to mainstream culture. The researcher stated that an individual may experience less social anxiety if they learn to adapt to mainstream culture and engage in self-compassion.
However, they cautioned the reader by mentioning that adapting to mainstream culture could negatively impact bicultural individuals overall psychological well-being, due to factors of discrimination and racial microaggressions.

Within the limited literature regarding self-compassion and acculturation, there appears to be an inability to draw many conclusions. The proposed study will seek to extend the literature by examining the relationship between acculturation and self-compassion, and depression in a sample of Native American adults.

*Self-Compassion and Depression*

A growing body of literature has focused on the relationship between depression and self-compassion. Macbeth and Gumley (2012) completed a meta-analysis of 14 studies examining the association between self-compassion and psychopathology. Each study utilized the self-compassion scale (Neff, 2003b). The researchers determined from their meta-analysis that there is a negative correlation with a high effect size between compassion and psychopathology, specifically depression, anxiety and stress.

Additionally, Van Dam, Sheppard, Forsyth, and Earleywine (2011) compared results for two measures examining self-compassionate with the Self Compassion Scale (Neff, 2003b) and mindfulness with the Mindful Attention Awareness Scale in order to predict anxiety, worry, depression and quality of life among a community sample. Self-compassion was a robust predictor of depression symptoms, anxiety symptoms and quality of life compared to mindfulness. Furthermore, Raes (2010) examined the effects of rumination as a mediator between self-compassion and depression and anxiety. The researcher found that brooding, specifically unproductive repetitive thinking, was a mediator between self-compassion and
depression. In regard to anxiety, they found that worry and brooding was a mediator between self-compassion and depression. All of these researchers utilized the self-compassion scale (Neff, 2003b).

Whereas, Johnson and O’Brien (2013) found that self-compassion and depression has a strong negative association between these two constructs. Specifically, they found a couple of mediators between the relationship between depression and self-compassion, which included shame, rumination and self-esteem. The researchers had the participants write about a shame inducing situation that they experienced. When they had the participants write about the experience in a more self-compassionate way, they were more likely to report less shame and negative effect than the other groups who just wrote about the experience. They concluded that the self-compassion allows for a painful experience to be re-examined in a soothing way rather than a shameful way. They also concluded that the more times an individual practices self-compassion the more likely it will increase self-compassionate attitudes.

Zhang et al. (2018) examined whether self-compassion and self-worth were mediators between shame and depressive symptoms among a sample of 109 African Americans, within the age range of 18 to 64, who attempted suicide and sought services. Self-compassion was a mediator between shame and depression. However, self-worth was not a mediator between depression and shame. The researchers concluded that by incorporating self-compassion training into individuals for African Americans who attempted suicide can reduce the impact of shame on their symptoms of depression. Which in turn can decrease their suicidal behavior and result in increasing their resiliency.

Pauley and McPherson (2010) wanted to understand individuals who have a diagnosis of depression and anxiety experience with compassion and self-compassion. The participants
reported that an integral part of compassion was kindness. The participants reported that compassion was bested enacted through action. The researchers stated that it may be difficult for individuals to conceptualize compassion in terms of a theoretical framework. Furthermore, individuals did not mention the concept of self-compassion until prompted to do so. The researchers concluded that self-compassion may be lost, or they did not have a sense of self-compassion while experiencing depression and anxiety symptoms. However, once the concept was mentioned many of the participants were willing to engage with the concept prior to learning about various interventions. Many of their participants believed that it would be difficult to adopt a self-compassionate response while being absorbed in their depressive and anxiety symptoms.

Raes (2011) examined whether self-compassion predicts depression in the future. They administered measures to individuals during two-time intervals separated during a 5-month period with non-clinical student sample. They found that having significantly higher levels of self-compassion at baseline was associated with smaller increases or greater reductions of depressive symptoms after a 5-month interval.

Shaprio and Mongrain (2010) examined the effectiveness of online exercises that were intended to increase the experiences of self-compassion and optimism within participants who were vulnerable to depression. Two experimental groups that practiced an exercise that focused on self-compassion or optimism daily for one week, demonstrated an increase in well-being within those two experimental groups over time. Three months later both experimental group reported that they were less depressed than the control group. Participants also reported an increase in happiness over six months. The researchers concluded that an increase in self-compassion and optimism can increase positive thinking about their current and future distress.
However, Wong and Mak (2016) examined the relationship between self-compassion writing and mental well-being among a sample of Chinese university students. They randomly assigned the 120 students into one of two writing conditions: self-compassion writing or control writing. They were instructed to write three times a week and record their positive and negative affect immediately following the writing exercise. Wong and Mak (2016) followed up with the participants after a month and after three months. The researchers found that negative affect increased in the group of Chinese university students over the three days of writing exercises than the control group. Whereas, at the one month and three months follow up the self-compassion writing group reported less physical symptoms than their counterparts. Additionally, the participants who participated in the self-compassion writing exercise did not report any significant differences among depressive symptoms at baseline and two follow-ups. Wong and Mak (2016) hypothesized that the added stigma to mental health may have impacted individual’s willingness to report symptoms of depression. Overall, most of the studies reported that there was a significant negative relationship between depression and self-compassion. However, among Wong and Mak (2016) they did not find a correlation between self-compassion and depressive symptoms. This negative association will be further examined in Native Americans.

Self-Compassion, Depression, and Native Americans

As far as this researcher knows, there was only one study that examined the connection between self-compassion and depressive symptoms within a Native American sample, specifically they focused on suicidality and its connection to aspects of self-compassion. Tielke (2016) examined the connection between self-compassion and specific suicide risk factors including, burdensomeness and thwarted belongingness, within a sample of Native American adults. She found that an increase in burdensomeness and thwarted belongingness when an
individual reported more negative aspects of self-compassion. Moreover, she found a decreased sense of burdensomeness and thwarted belongness were associated with more positive aspects of self-compassion. Additionally, she found that men who over-identified with their negative emotions were more likely to feel like they did not belong or were a burden. Whereas, women who felt isolated in their experiences were more likely they didn’t belong within their community. The researcher concluded that having a sense of belonging decreased their suicidal ideation, whereas, feeling like they are alone in their suffering was associated with an increase in suicidal ideation. A sense of belonging to one’s culture and community was shown to be a protective factor against suicidality for this sample of Native Americans.

The research studies above mention the negative correlation between depressive symptoms and self-compassion. There was only one study that examined the connection between suicidality and self-compassion within a sample of Native American individuals. However, that study was promising by providing us with the findings that there is a negative association between self-compassion and suicidality. Given the lack of research a study examining the association between self-compassion and depression is needed.

The Current Study

The proposed study investigated the relationship between self-compassion and depression, while taking into consideration acculturation as a moderator. Research on self-compassion and depression within the general population indicates that there is a significant negatively correlated relationship between the two factors (Johnson & O’Brien, 2013; Lopez et al., 2018; Neff, 2003b; Raes, 2011). Additionally, there has been research to suggest that having a connection to Native American culture can decrease depressive symptoms and be utilized as a protective factor among some Native American individuals (Kaufman et al., 2013; Tielke, 2016;
Whitbeck et al., 2002). Unfortunately, the research between acculturation and depression is limited and inconclusive (Gonzalez & Gonzalez, 2008; Hamilton, 1996; Hwang & Myers, 2007; Scheel, 1999). Oetting and Beauvais (1991) argue that identifying with any culture will decrease symptoms of depression. In regard to acculturation and self-compassion, there is limited research and the findings contradict themselves (De Anda, 2019; Iwabuchi, 2018; Rivera, 2017). While taking the previous research into consideration this researcher has concluded that there is a gap in research between depression, self-compassion and acculturation, specifically with Native American individuals.

By understanding the role and impact of culture and its relationship between well-being, it may be beneficial to encourage individuals to participate in activities that focus on their culture. Additionally, with these findings we can continue our collaborative relationship with the tribe and advocate for an increase of funding towards activities that focus on culture to different funding agencies, so the tribe can provide cultural resources to its members. Moreover, by identifying the role of self-compassion on well-being, we can explore its utilization as a potential avenue for treatment for Native American individuals who struggle with depression.

Overall, the purpose of the study is to study the relationship between self-compassion and depression in a sample of Native Americans, while taking culture into consideration. Previous research suggests that there is an association between depression and self-compassion. Furthermore, prior research studies suggested that self-compassion is positively correlated with overall well-being and negatively correlated with depression (Neff, 2003b). However, there is research to suggest that acculturation may impact depression and not self-compassion (Oetting & Beauvais, 1991). To further our understanding of the relationship between self-compassion and
depression we will be examining the impact of acculturation on a sample of Native Americans from the Northeastern U.S.

The proposed study will expand our knowledge related to the protective factors and sources of strength within Native American people. Within the general population self-compassion has a negative correlation with depression. However, this has not been explored among Native American people. Furthermore, by utilizing an acculturation scale we can further understand whether acculturation to either Native American or White culture is a source of strength among Native Americans and whether it influences the relationship between self-compassion and depression in Native Americans. This current study can further our understanding about Native American’s mental health and the strategies that we utilize as sources of strength.

The following hypothesis were tested in the current study:

**Hypothesis One**

Depression will be negatively associated with self-compassion. As self-compassion, as measured by the Self-Compassion Scale, increases, then the depression, as measured by the CES-D total score will decrease. Previous research has explored this relationship and found a negative relationship between self-compassion and depression (Neff, 2003b).

**Hypothesis Two**

Depression will be negatively associated with identifying with either White culture or American Indian culture. As identification with either White or American Indian culture increases, depression will decrease. Previous researched reported mixed findings in regard to acculturation and depression within Native American populations (Hamilton, 1996; Scheel,
1999; Whitbeck et al., 2002), more research needs to be conducted before conclusions are able to be drawn.

**Hypothesis Three**

The level in which a participant acculturates to White, mainstream American identity or Native American identity will moderate the association between self-compassion and depression. That is, if a participant identifies more heavily with White culture it is expected that this would increase the impact of self-compassion on depression. Whereas, individuals who identify more with Native American culture there is less likely to be an increase on the impact between depression and self-compassion. This hypothesis is exploratory and will add to the literature on the relationship between these three variables.
Method

Participants

Participants in this study were self-identified individuals from a Northeastern Tribe in the U.S. ages 20-65 ($M_{age} = 29.67$, $SD = 6.24$), who live in proximity to or on a reservation. In total, 298 people attempted to complete the survey, but 198 did not meet inclusion criteria or did not complete the study (See Appendix A). Thus, 100 individuals comprised those who were part of the current study.

Inclusion criteria and rationale

The inclusion criteria included individuals who self-identified as the Northeastern Tribe. Historically, there has been controversy over one’s identification with a particular tribe. In this research study, it was important to allow the participants to decide whether or not they fit the tribal identification. If they did, they were invited to participate within the study. The other inclusion criteria included being over the age of 18, living on or near the reservation and identifying as Native American. The participants were asked prior to entering the survey if they met the criteria, which included living on or near the reservation, age criteria, and if they self-identified with the tribe. If they did not meet the criteria, they were not asked to join the survey. In the demographic section they were asked to provide their age, their tribal identification, whether they lived on or near a reservation, and the race. In order to be included in the study, the participants were required to meet all four criteria.

According to a priori analysis conducted with G*Power software, a sample size of 111 was desired. A power analysis for a linear multiple regression test, with a medium to large effect size ($F = 0.20$) at the 0.05 alpha level and with power set at 0.95, suggests that the number of participants should be approximately 111 for six predictors. A moderate effect size was explored
given the unknown impact of acculturation on the relationship between self-compassion and depression. Based on the power analysis, this researcher attempted to recruit 122 participants to ensure adequate power for the proposed statistical analysis. This number was increased to account for the probability that people will not complete the measure once they start.

**Sample Demographics**

Appendix A includes a table outlining participants’ demographic data \( n = 100 \). Among the participants, 55% \( n = 55 \) reported that their assigned sex at birth was male, 44% \( n = 44 \) reported that their assigned sex at birth was female, and 1% \( n = 1 \) reported that their assigned sex at birth was intersex. In regard to gender, 63% \( n = 63 \) participants identified as man, 32% \( n = 32 \) identified as woman, and 5% \( n = 5 \) as transgender.

Of the sample, 44% \( n = 44 \) identified as heterosexual or straight, 27% \( n = 27 \) identified as gay or lesbian, 17% \( n = 17 \) identified as bisexual, 9% \( n = 9 \) identified as asexual and 3% \( n = 3 \) identified as pansexual. In regard to the participants relationship status, 23% \( n = 23 \) were single, never married, 46% \( n = 46 \) were married, 22% \( n = 22 \) had a live-in partner, 5% \( n = 5 \) widowed, and 4% \( n = 4 \) were divorced.

The individuals who qualified for the study self-identified as being an affiliated with the Northeastern tribe, lived on or near a reservation, were at least 18 years old, and identified as Native American. All of the participants identified as Native American \( n = 100 \) and lived on or near the reservation.

The participants reported varying degrees of education attained. Specifically, in regard to highest level of education attained, 9% \( n = 9 \) reported completing some elementary school, 10% \( n = 10 \) reported completing some high school, 14% \( n = 14 \) reported high school, 29% \( n = 29 \)
of participants reported some college, 14% \((n = 14)\) reported receiving an associate’s degree, 7% \((n = 7)\) reported receiving a bachelor’s degree, 16% \((n = 16)\) receiving a master’s degree and 1% \((n = 1)\) missing data.

Approximately 71% \((n = 71)\) of individuals were employed full time, approximately 18% \((n = 18)\) of individuals were employed part-time, 4% \((n = 4)\) were seasonal, 3% \((n = 3)\) were laid off, 3% \((n = 3)\) were retired, and 1% \((n = 1)\) choose not to report their employment status.

**Recruitment of Participants**

In order to recruit participants, social media was utilized. This researcher reached out to the communications department at the tribal government and asked if they would be able to create a post about the research study. They agreed and a post was created on the tribal social media platform. This post was shared around the reservation. The participants were recruited from a reservation in Northeastern U.S., a population difficult to recruit from given the small number of individuals who reside within or on the reservation.

In order to increase response rates, Lavrakas (2008) suggested that monetary incentives can be helpful. Monetary incentives also decrease the potential for non-response bias within survey-based research studies. For this reason, to incentivize participation in this study the participants were given a $5 dollar gift card that they could use for a local coffee shop. They were given the gift card if they attempted to complete the survey and chose to provide their email through a link at the end of the survey. They received the gift card whether or not they completed the survey. To increase response rates, the participants were also entered to win a gift basket worth $100 that included stress reducing items. The winner picked up the gift basket at the mental health department of the tribal government after being notified by email. This winner was drawn after data collection was completed.
Measures

Demographic Information Questionnaire

Each participant completed a demographics questionnaire that was developed for the current study. The questionnaire will include items related to the participants’ self-identified age, sex, gender, sexual orientation, race, tribal identities, highest level of education achieved, whether they currently live on reservation or off, and current employment (see Appendix A). The demographics questionnaire included open-ended response options, specifically their tribal and their definition of depression (see Appendix B).

The Center for Epidemiologic Studies Depression Scale (CES-D)

The Center for Epidemiologic Studies Depression Scale is a 20 item self-report scale measuring depression symptomatology within the last week (Radloff, 1977; See Appendix C). The researcher reported internal consistency (Cronbach α = .80). In regard to test-retest correlations, Radloff (1977) reported moderate levels ranging from .51-.67 for time intervals for 2-8 weeks. With time intervals for three to twelve months ranged from .40-.54. Radloff (1977) reported that the CES-D was able to discriminate moderately between a psychiatric inpatient and general population sample (r = 44-.54). Both internal consistency and test-rest correlations appears to be in a statistically acceptable range. In this study, the reliability of the CES-D for our sample was found to be (Cronbach’s α = .83), which falls within the acceptable range (.70-.95; Tavokol & Derrick, 2011).

Furthermore, the CES-D examines individual’s depression symptoms with four factors, including depressed affect, anhedonia, somatic symptoms, and interpersonal challenges. Items are rated on a 4-point Likert-type scale: 0 is rarely or none of the time, 1 is same or a little of the
time, 2 is a moderately amount of time, and 3 is most or all of the time. Total scores range from 0 - 60, which a higher score indicating more symptoms of depression. Whereas Radloff (1977) utilizes a cutoff score of 16 based off their sample in the original study.

Somervell et al. (1992) reported a Cronbach alpha of .86 for the CES-D within their sample of Native Americans. They found acceptable ranges of concurrent and discriminant validity within their sample. Additionally, they reported that there was not a difference between the three factor and four factor models utilized within the CES-D for their sample. However, they found a high correlation between depressed affect and somatic factors (.95) and concluded that a three-factor model may be more appropriate to be utilized among Native American samples. This scale has been utilized frequently within Native American populations and has indicated that it the CES-D is a likely reliable and valid measure to be utilized with the current Native American sample.

Orthogonal Cultural Identification Scale (CIS)

The Orthogonal Cultural Identification Scales are a self-report six item scale that measures the degree to which an individual expresses identification or the lack of, with each of the cultures on the questionnaire (Oetting & Beauvais, 1991; See Appendix D). Previous research examined Hispanic American culture, White-American culture, African American culture and Native American culture. All categories are representative of individuals who were born and raised in America. For the purpose of this study, American Indian culture and White-American culture were used to focus on the Cultural identification because the community that were used on is predominately Native American and White-American. Oetting and Beauvais (1991) reported the internal consistency (Cronbach’s α) for the CIS was .87 (White identification of Native American youth) to .88 (Native American identification of Native American youth).
Concurrent validity ranges from .39 to .74 for items related to Indian culture. Whereas, discriminant validity correlations are smaller and range from .16 to .26 with items related to other cultures. The internal consistency, concurrent, and discriminant validity support the use of the CIS as a reliable and valid measure with Native American populations. In this study, the reliability of the CIS with Native American culture for our sample was found to be (Cronbach’s $\alpha = .78$), which falls within the acceptable range (.70-.95; Tavokol & Derrick, 2011). In this study, the reliability of the CIS with White culture for our sample was found to be (Cronbach’s $\alpha = .72$), which falls within the acceptable range (.70-.95; Tavokol & Derrick, 2011).

Items on the CIS are rated on a 4-point scale: 0 is none, 1 is a few, 2 is some, and 3 is a lot. Total scores range from 0 -18, which a higher score indicating more acculturation to either White culture or Native American culture.

Venner, Wall, Lau, and Ehlers (2006) sought to validate the orthogonal cultural identification scale with an adult sample of Mission Native Americans. They found an internal consistency of 0.76-0.91 with the adult population. Furthermore, both concurrent and discriminant validity was found with two factors that emerged from their analysis including Anglo American identification and Native American identification. Oetting, Swaim, and Chiarella (1998) examined the factor structure of the orthogonal cultural identification scale with a sample of Native Americans. They identified a two-factor structure model which included, majority culture and minority culture. They concluded that these two factors were independent from each other and both influenced their cultural identity.

*Self-Compassion Scale (SCS)*
This 26 item self-report measure examining whether an individual directs compassion towards themselves in difficult times (Neff, 2003b; See Appendix E). The self-compassion scale assesses six intercorrelated subscales including: self-kindness versus self-kindness, common humanity versus isolation, and mindfulness versus over-identification. Neff (2003b) reported that the internal consistency within the scale is .92. Whereas, within the six specific scales the internal consistency is self-kindness at .78, self-judgment is .77, common humanity is .80, isolation is .79, mindfulness is .75, and over-identification is .81. They researcher also found that the test-retest reliability was .91 for the SCS. In this study, the reliability of the SCS for our sample was found to be (Cronbach’s $\alpha = .72$, which falls within of the acceptable range (.70-.95; Tavokol & Derrick, 2011). Whereas, within the six specific scales in the current study, the internal consistency is self-kindness at .70, self-judgment is .25, common humanity is .72, isolation is .66, mindfulness is .72, and over-identification is .75. Among the scales, four subscales fall within the acceptable range.

Items are rated on a 5-point Likert-type scale: 1 is almost never, and 5 almost always. To compute a total self-compassion, score the negative subscale items are reverse scores, those subscales include self-judgement, isolation, and over-identification (i.e., $1 = 5$, $2 = 4$, $3 = 3$, $4 = 2$, $5 = 1$). Following this calculation, you are supposed to then compute a grand mean of all six subscale means, which can be used to analyze the data.

Whereas, Brenner et al. (2017) examined the factor structure of the most widely used Self-Compassion Scale (Neff, 2003). The authors examined whether the single factor, which is comprised of six dimension, should be an individual factor or separated into two. They concluded that the individual factor should be separated into two separate factors self-compassion and self-coldness. Self-compassion factor encompasses self-kindness, common
humanity, and mindfulness. Whereas self-coldness factor encompasses self-judgement, isolation, and over-identification. The researchers argue that the self-compassion and self-coldness are distinct constructs and that only 13 items measure self-compassion rather than the original 26 items. However, this is one study that considered this change, and more research needs to be conducted before individuals start to use this factor breakdown in their research. This researcher relied on previous research to conduct the present study.

**Procedure**

Prior to the completion of the prospectus, this researcher met with the director of health and director of mental health of a tribe, who resided on a reservation, in the Northeastern U.S. This researcher received consent to conduct this survey on the reservation and remain in constant contact throughout the process of this study. This researcher agreed to return the data to the tribe following the completion of this study.

After obtaining IRB approval for the protection of human participants, the survey was administered via SurveyMonkey. SurveyMonkey is utilized by both students and faculty to develop, administer, and distribute web-based surveys. Participants completed the survey were required to do so by utilizing a smart phone or computer along with the link to the survey.

The researcher reached out to the director of mental health at the tribe and director of health with the proposed flyer. After the researcher received approval about the flyer, the researcher contacted communications at the tribal government so that they could post the flyer to their social media platform for the tribe. Communications posted the flyer onto their page. After consenting to the survey and verifying that they were eligible to participate in the study. The participants were asked to complete the demographics questionnaire, following this they
completed the CES-D, CIS, and SCS in that order. All the questions were presented in question clusters (i.e., CES-D was administered on one page and CIS was administered on another page) with instructions with each respective survey.

After the participants completed the survey, they were directed to another page thanking them for their participation. This page also included a link to another survey where they could input their email address to receive a $5 gift card to a local coffee shop. Their email address was used to pick a winner for the gift basket worth $100.

**Data Analytic Strategy**

The purpose of the study was to examine the relationship between depression and self-compassion while talking culture into consideration as a moderator. The independent variable for the study was self-compassion which was measured with the SCS and acculturation which was measured using the CIS. The dependent variable was the symptoms of depression that were measured by the CES-D. Descriptive statistics for rates of depression will be reported and compared to the existing data regarding depression in Native American populations. Furthermore, measures of central tendency (mean, median, mode) will be utilized to examine the representativeness within the sample. This study should be considered as exploratory given the lack of research in the field on these variables. Further research needs to be completed before the results can be confirmed or disproven.

After the data was collected, the researcher proceeded to clean the data prior to analysis. The researcher removed participants that did not meet the inclusion criteria; older than 18 years old, identify as the northeastern tribe, lived on or near the reservation and identified as Native American. In total, 298 people attempted to complete the survey, but 193 did not meet inclusion
criteria or did not complete the study. After removing the participants that did not meet the inclusion criterion, the researcher proceeded to clean the data. The researcher examined the descriptive statistics to determine whether there were any data entry errors. All missing data was coded to be a “99” and the scores were computed for each scale total. The scores were computed using the pairwise deletion method to allow for more scores to be accounted for within the model. Following the missing data, the outliers were removed for the data set by using the case wise diagnostic option within the regression model. Following this procedure each case was identified that was an outlier and removed from the data set.

**Hypothesis One: Depression and Self-Compassion.** A correlation coefficient was calculated for the analysis of this hypothesis. The current study will utilize a Pearson Correlation Coefficient for the first hypothesis as an initial analysis (Sedgwick, 2012). Sedgwick (2012) reported that the Pearson Correlations Coefficient measures the strength of the association between two linear variables and is measured on a scale of -1 to +1. If the correlation coefficient was positive, then the correlations between variables is a positive.

As hypothesized depression will be negatively associated with self-compassion. Researchers have found a negative association between depression and self-compassion within the general population (Johnson & O’Brien, 2013; Lopez et al., 2018; Neff, 2003b; Raes, 2011). Given the lack of research on depression symptoms and self-compassion, the researcher hypothesized, based on the general population, that there will be a negative association found within the study between self-compassion and depression symptoms.

**Hypothesis Two: Depression and Acculturation.** A correlation coefficient was used for the second hypothesis. It will be used to measure the association between two linear variables. As hypothesized “Depression will be negatively associated with identifying with either
White culture or American Indian culture. As identification with either White or American Indian culture increases, depression will decrease. Previous researched reported mixed findings in regard to acculturation and depression within Native American populations (Hamilton, 1996; Scheel, 1999; Whitbeck et al., 2002), more research needs to be conducted before conclusions are able to be drawn. A correlation coefficient was utilized to complete an initial analysis prior to completing a multiple linear regression for the final hypothesis. The researcher also completed an initial analysis looking more closely at higher and lower scores on the CIS while utilizing depression as a dependent variable.

**Hypothesis Three: Depression, Self-compassion, and Acculturation.** A multiple linear regression was utilized to determine whether acculturation moderates the association between self-compassion and depression. Specifically, I examined whether the participants total scores on the SCS predicted the depression scores on the CES-D, while taking into consideration acculturation as a moderator. Two separate multiple linear regressions were utilized to examine the association between SCS and CES-D. The first linear regression used White Culture as a moderator and SCS to predict scores on the CES-D. The second linear regression did take into consideration NA culture as a moderator and SCS to predict scores on the CES-D. As stated above this analysis will be exploratory in regard to examining the degree to which both cultures moderate the relationship between self-compassion and depression. These findings will add to the literature regarding these three variables while working with NA populations.

**Results**

**Analysis**
As noted previously, limited research has examined the relationship between self-compassion and depression within a study of Native Americans. Additionally, there are no studies examining the effects of acculturation on the relationship between self-compassion and depression. This study should be considered exploratory because of the lack of research in this field. Given the exploratory nature of the study, the results should be considered with caution and in conjunction with future research before further advances can be made within this field.

Depression symptoms were measured using the CES-D, which measures the symptoms that an individual has experienced over the last week. Approximately 87.6% of participants reported experiencing clinically significant symptoms of depression according to the CES-D (Appendix F). Several variables were found to be significantly correlated within the study (See Appendix H for correlation matrices). Age \( r (97) = -.38, p = <.001 \), relationship status \( r (97) = .28, p = <.01 \), and sexual orientation \( r (97) = .28, p = <.01 \) were significantly correlated with the CES-D.

**Hypothesis One: Depression and Self-Compassion**

The first hypothesis was examining the relationship between depression and self-compassion. Specifically, the hypothesis was that depression will be negatively associated with self-compassion. As self-compassion, measured by the Self-Compassion Scale, increases, then the depression, measured by the CES-D, total score will decrease. There was a negative, statistically significant relationship between the total scores on the CES-D and the total scores on the SCS \( r (91) = -.61, p = <.001 \). Thus, as predicted, as scores on the CES-D decreases the scores on the SCS increase. This finding indicates that individuals who had higher scores on the SCS had lower scores on the CES-D.
Hypothesis Two: Depression and Acculturation

The second hypothesis was examining the relationship between depression and acculturation variables, specifically White Culture and American Indian culture. Specifically, the hypothesis was that depression will be negatively associated with identifying with either White culture or American Indian culture. As identification with either White or American Indian culture increases depression will decrease. There was a negative, statistically significant relationship between the total scores on the CES-D and total scores on the Native American CIS measure ($r (96) = -.34, p = <.001$). As scores on the CES-D decrease then total scores on the NA CIS increase suggesting that those who had higher scores on Native American acculturate on, reported lower scores on the CES-D. There was a positive, statistically significant relationship between the total scores on the CES-D and total scores on the White Culture CIS measure ($r (93) = .24, p <.05$). As scores on the CES-D increase than the total scores on the White CIS also increase. This suggests that individuals who scores high on the CES-D, also had higher scores on the White CIS measure.

Furthermore, the specific relationship between the CES-D and the CIS measure was also further studied by examining the scores of individuals who scores either low (scores below mean) or high (scores at or above mean) on the CIS measure and the relationship between the scores on the CES-D. No statistically significant relationship was found between total CES-D scores and either low or high scores on the NA CIS measure ($r (96) = -.19, p =.07$). Additionally, no statistically significant relationship was found between total scores on the CES-D and high or low scores on the White CIS measure ($r (93) = .01, p =.95$).

Hypothesis Three: Depression, Self-Compassion and Acculturation
The third hypothesis was examining the relationship between self-compassion while taking into consideration acculturation. Specifically, the level in which an individual acculturates to White culture or Native American culture will moderate the association between self-compassion and depression. Specifically, I examined whether the participants total scores on the SCS predicted the depression scores on the CES-D, while taking into consideration acculturation as a moderator. A regression analysis was conducted to determine whether total scores on the SCS predicted the depression scores on the CES-D, while scores for the white culture section on the CIS into consideration. Whereas scores on the Native American portion of the CIS were taken into consideration while looking at the total scores on the SCS to determine whether that predicted the depression scores on the CES-D. Histograms were created and examined to ensure that the data was normally distributed. Outliers by distance were removed prior to data analysis. Cooks distance indicated no outliers by influence. However, a centered leverage value indicated an outlier by influence, but they were unable to be identified and removed. Multicollinearity and homoscedasticity were examined, and each assumption was met. A regression analysis was conducted following each assumption examined.

Multiple linear regression was carried out to determine the effect of self-compassion and White culture acculturation scores of the participants on depression scores. A moderation was carried out through the multiple regression to determine the degree to which acculturation and self-compassion predict depression scores. Multiple regression was carried out given the correlation that was found between the variables in the preliminary analysis. This was a statistically significant model \( F(3, 85) = 18.66, p < .001 \) indicating that the results were unlikely to have arisen by chance, which would have assumed that the null hypothesis to be true. The adjusted \( R^2 \) indicate that 37.6% of the variance in depression scores was accounted for by
the three predictor variables. The analysis suggests that total scores from the SCS ($\beta = -.56$) was a significant predictor variable for depression total scores. The SCS total scores ($t = -6.23$, $p < .001$) was statistically significant within this model. Whereas total scores from the White CIS total scores ($\beta = .15$) was not a significant predictor for the depression total scores, nor were the White CIS total scores ($t = 1.76$, $p = .08$) statistically significant within this model. Furthermore, the model considered the interaction term between depression, self-compassion and White culture. The interaction between the variables was not significant ($\beta = .08$, $t = .95$, $p = .34$). These results suggest that self-compassion and White culture did not moderate the depression scores (see Appendix I).

In regard to Native American culture, a multiple linear regression was also completed to examine the relationship between self-compassion and NA culture scores on depression. This was a statistically significant model ($F (3, 86) = 26.99$, $p = <.001$) indicating that the results were unlikely to have arisen by chance. The adjusted $R^2$ indicate that 46.7% of the variance in depression scores can be accounted for by the three predictor variables. The analysis suggests that total scores from the SCS ($\beta = -.64$) was a significant predictor variable for depression total scores. The SCS total scores ($t = -6.28$, $p < .001$) was statistically significant within this model. The total scores from the NA CIS total scores ($\beta = -.35$) were a significant predictor for the depression total scores. The NA CIS total scores ($t = -4.40$, $p < .001$) was statistically significant within this model as well. Furthermore, the model considered the interaction between depression, self-compassion and NA culture. The interaction between the variables was not significant ($\beta = .06$, $t = .56$, $p = .58$). These results suggest that self-compassion and NA culture did not moderate the depression scores (See Appendix I).
Discussion

These findings should also be considered within the current climate that this research was conducted at that time. This researcher of the current study collected the data during the COVID-19 pandemic. Blanchflower and Bryson (2022) discussed the overall impact the COVID-19 pandemic had on mental health within U.S. The researchers reported that there were times throughout the pandemic where there was an increase of individuals reporting a decline in their mental health. They reported a decline in mental health from the beginning of 2020 to July 2020. They reported some improvement through the summer of 2020 and then a decline again through the end of 2020 to July 2021. The researchers reported a significant decline in mental health in March 2020. They concluded that COVID-19 had a negative impact on the wellbeing on individuals throughout the COVID-19 pandemic. Given the current climate, it is difficult to say how these results were impacted because of the COVID-19 pandemic.

Depression and Self-Compassion

The current study examined the relationship between depression and self-compassion within a sample of Native Americans who identified with a tribe located in the Northeastern U.S. The current research study found that within this sample of Native Americans there was a negative relationship between self-compassion and depression where higher scores on depression are associate with lower scores on self-compassion. These results were found in previous research examining the relationship between self-compassion and depression (Johnson & O’Brien, 2013; Macbeth & Gumley, 2012; Neff, 2003b). Additionally, Van Dam, Sheppard, Forthsyth, and Earleywine (2011) found that self-compassion was a robust predictor variable for
depression symptoms among a sample of people from across the world. The current research added to the previous research by discovering a similar finding within a sample of Native American individuals. This finding is meaningful because only one other study has looked at the link between self-compassion and depression symptoms, specifically suicidality, with a sample of Native Americans.

The current study found that self-compassion accounted for a significant amount of variance accounted for in the scores on the CES-D, depression variable. Given these findings, it important to consider the population in which the researcher is working with and ensuring that these results are discussed with the tribe. This researcher is recommending that individuals working closely with tribal membership who are struggling with symptoms of depression, should consider how less self-compassion may play a role in intervention for tribal members. This research can potentially provide increased understanding of the effects that low self-compassion may have on depression symptoms. Specifically, when we explore how individuals answered the scale, a few questions that individuals reported engaging in more frequently on the self-compassion scale fell into four subscales, which included self-kindness, overidentification, mindfulness, and common humanity (See Appendix J for item analysis).

In regard to self-kindness subscale, some of the questions included “I try to be loving towards myself when I’m feeling emotional pain.” Other questions include “I’m kind to myself when I’m experiencing suffering” and “I’m tolerant of my own flaws and inadequacies.” These questions focus on being kind toward oneself when they are struggling. Thus, lower endorsement of self-kindness might kind helping professionals in areas of concern or therapeutic work.
In regard to the overidentification subscale, some of the questions include “when I’m feeling down, I tend to obsess and fixate on everything that’s wrong.” Another question includes “when I fail at something important to me, I become consumed by feeling of inadequacy.” Both focus feelings of inadequacies and fixating on the negative which would more highly endorsed for those with depression symptoms.

The mindfulness scale questions include “when something upsets me I try to keep my emotions in balance.” Another question within this subscale is “when something painful happens I try to take a balanced view of the situation.” While another question includes “When I fail at something important to me I try to keep things in perspective.” Mindfulness subscale focuses on keeping oneself balanced and taking perspective of the situation which would be less endorsed for those with higher depression scores.

The final scale that will be discussed in relation to the results is the common humanity subscale. Question within that scale is “I try to see my failings as part of the human condition.” A few other questions include “when things are going badly for me, I see the difficulties as part of life that everyone goes through.” One more question includes “when I’m down and out, I remind myself that there are lots of other people in the world feeling like I am.” These questions allude to the suffering that everyone participates in, which is considered an aspect of the human experience. For those with higher depression scores, they would have endorsed common humanity less.

Additionally, participants tended to score higher on questions asking about balancing their emotions and considering their failings as a part of human suffering. These questions are a part of either mindfulness or common humanity. The Neff and Germer (2018) workbook describes specific approaches to address low self-compassion. The workbook explains
combining self-compassion and mindfulness-based approaches to therapy to help with anxiety and depression. Given the finding of the present study, it could be helpful for mental health practitioners to continue to consider utilizing approaches that address low self-compassion. Another treatment to consider is a compassion focused therapy that focuses on developing compassion towards oneself and others that adds to individuals’ well-being (Gilbert, 2019). Gilbert (2019) approach to self-compassion includes discussing compassion towards oneself and includes utilizing various exercises and discussion that help individuals develop a compassionate mind. If self-compassion was utilized as a focus in clinical settings to lower depression symptoms, this therapy might be a meaningful option for Native Americans seeking psychotherapeutic interventions.

This is one of a few studies that has looked at self-compassion in Native American individuals. While this study did not evaluate a specific therapeutic approach, the study provides a potential direction for what may be helpful for Native American individuals. Many research studies have focused on negative aspects of Native Americans and depression. This study is focusing on a possible specific construct to address, that may be a component of Native American’s experience of depression. Therefore, self-compassion was found to be significant and potentially meaningful within this population. In order for specific treatment approaches to be recommended, further research needs to be conducted on the specific benefits of self-compassion treatment on NA tribal individuals struggling with depression.

**Depression and Acculturation**

The results of the present study were found to support the current hypothesis. Specifically, the hypothesis was supported in regard to White acculturation because there was a statistically significant positive relationship found between White cultural identification and
depression meaning that higher white identification was associated with higher ratings of depression. The hypothesis that acculturation plays a role in depression symptoms was also supported in regard to Native American cultural identification because there was a statistically significant negative relationship found between depression scores and Native American culture. Conversely, as scores on the Native American cultural identity measure increased the scores on the depression measure decreased within this sample. Whitbeck et al. (2002) found that individuals who utilized traditional practices had a negative association with depression. While it is not clear whether or not traditional practices are utilized within this sample of Native Americans, the individuals who completed the study who identified more with Native American culture also reported lower scores on the CES-D. Previous research (Whitebeck et al., 2002) indicates that there may be a tie between traditional practices and Native American culture that decreases depression symptoms within Native American individuals. Given that there were findings to support a negative relationship between Native American cultural identity and lower scores on depression, its recommended that individuals continue to do research in this domain to better understand what about Native American cultural identity protects against endorsing symptoms of depression. At this time research, a correlation was completed to examine the relationship between two variables, however, the correlation does not explain the nuances that are present between both variables and its recommended that more research be completed to fully understand the impact Native American culture has on depression scores. As stated above, it could be helpful to provide more specifics on what various cultural practices that individuals from this tribe can participate in like classes in traditional medicines, or classes in their language or culture, could be helpful in decreasing depression ratings.
The acculturation scale measures the level in which an individual may identify with a particular culture, specifically White culture and Native American culture. The questions on the scale explored individuals’ special activities or traditions, their families’ beliefs, levels of comfort with the culture for themselves and family. Some of these questions include “in the future, with your own family, will you do special things together or have special traditions that are based on NA culture.” Another question includes “to what extent is your family comfortable NA culture” and “to what extent are you comfortable NA culture.” Furthermore, participants had higher mean scores on the questions asking the extent in which their family was comfortable in Native American culture (see Appendix K). These findings suggest that participants are considering practices from their culture and utilizing them to shape their future families. The participants answers suggest that while they may feel comfortable in Native American culture, they are considering their own family and future family when thinking about their culture.

Depression, Self-Compassion and Acculturation

The results of the present study do not support the hypothesis that acculturation moderates the relationship between self-compassion and depression. The current study explored White culture and its moderation effect between self-compassion and depression. White culture did not moderate the relationship between self-compassion and depression. The current study also explored whether Native American culture moderated the relationship between self-compassion and depression. The current study found that NA culture did not moderate the relationship between self-compassion and depression. This study was exploratory, no previous research had examined the effects of culture on the relationship between self-compassion and depression.
As discussed, the current study found that culture did not moderate the relationship between self-compassion and depression. One interpretation of these findings compared to the previous research indicates that culture and self-compassion are independent predictor variables for depression symptoms. This means that both variables influence depression independently from each other rather than having culture be a moderating factor between self-compassion and depression. Neff and Germer (2018) discuss self-compassion as having kindness towards oneself and understanding that all individuals suffer throughout the course of their life, which resonated with the cultural humility aspect of her self-compassion scale. While it was hypothesized that culture would play a role in the impact of self-compassion on depression, it did not. Given the lack of findings in regard to cultural identification being a moderator for self-compassion it may be beneficial in the future for mental health professionals to incorporate aspects of cultural practices into treatment for depression, but approach these separately from the possible self-compassion practices. Within this study it seemed like both variables were meaningful distinctly in their relationship with lower depression scores on the CES-D.

**Implications**

While considering the results, it’s important to consider the individuals who will be working with tribal members who are struggling with depression, specifically the mental health professionals and the implications of practice. In general, the results of the study suggest that there is a negative correlation between depression and self-compassion. Upon further inspection a large amount of variance in depression scores is accounted for by self-compassion. For this reason, it may be beneficial to encourage individuals working with this tribe to utilize self-compassion approaches to therapy.
Two different individuals have created treatment approaches that incorporate self-compassion methods into a treatment that improves individual’s well-being (Gilbert, 2019; Neff & Germer, 2018). Neff and Germer (2018) created a workbook that explores utilizing self-compassion and mindfulness practices to combat depression and anxiety symptoms. Within the workbook she discusses the importance of having self-compassion towards ourselves because of the suffering we face throughout our lives as a collective human race. She added that self-compassion is used to help comfort and soothe ourselves in the face of adversity. While incorporating mindfulness practice we are able to open ourselves up to that suffering and accept it as a typical human experience. Gilbert (2019) created a treatment approach called The Compassionate Mind, which introduces individuals to the relationship between the mind and compassion, which can be healing. He provides individuals with exercises and discussion points that can help to develop a compassionate mind. By utilizing compassion approaches to therapy and adapting it to the Native American clients, those practices may lower overall depression scores. Continuing to explore self-compassion practices with Native American clients and identifying what aspects of self-compassion resonate with the clients would be beneficial future research.

Furthermore, the results suggested that Native American cultural identification was also important in lower depression scores in this study. While considering this finding, one would recommend encouraging clients, if possible, to become active in cultural activities that are important to their own tribe, whether that be beading, singing, dancing, drumming, learning their language, attending pow wows, attending ceremonies, or practicing in cultural activities. Any of those activities may be helpful in getting clients engaged further with their culture. Encouraging the exploration of their culture and how they could become involved in their cultural activities
including engagement with community members may be a way to foster their cultural identity development.

In conclusion, it’s important as mental health professionals to consider the client’s relationship with self-compassion and their culture and its relationship to lower depression symptomatology. Given the findings of this study, more research needs to be done to explore various culturally responsive practices for Native American individuals. Adapting self-compassion practices and encouraging clients to engage in exploring their culture could prove to be beneficial in decreasing symptoms of depression.

Limitations and Future Directions

The results of the study contributed to existing research regarding depression in Native American samples. The study of a tribe in the Northeast, added to the research by examining depression as an outcome variable when self-compassion and acculturation are considered. Nonetheless, there are a number of limitations within the current study that should be considered while discussing the finding from this study. Specifically, the limitations of the acculturation measure, generalizability of the study and order of survey to participants.

Rudmin (2003) has explored acculturation and looked into the history of acculturation in depth in his previous study. Rudmin (2006) argues against some of the approaches and generalization that researchers within the acculturation field discuss in their findings. He argued against the use of unicultural measures and reported that many researchers tend to misinterpret them within the field. He added that many researchers have found that no minority group has a preference or practices that align with only one culture. He also noted that many researchers rarely notice the overlap that occurs between biculturalism practices, so the measures are not
able to identify the complexities of culture and measure them accurately, so generalization end up being made within the research. He argues that acculturation constructs and measures need to be revaluated and modified prior to use with various groups and that they should focus on different variations of biculturalism. This research should be taken into consideration when considering the current findings. This researcher scale did not have the capability to consider the bicultural overlaps of the cultures and to examine the degree of cultures that individuals may identify.

While also considering acculturation, it’s important to note that these questions are asking about individual’s perspective on their Native American identity in a broad sense. The acculturation questions were not asking about specific cultural practices that the individuals utilize within their own community. This scale took a pan-Indian approach and was not specific to the tribe that was a part of the current research study. Howard (1955) explains pan-Indianism as a process in which Native Americans become members apart of a non-distinctive dominant Native American culture that encompasses multiple Native American cultural beliefs rather than one distinct one. He added that some of these beliefs come from Native American tribes and have been adapted into pan-Indianism. Given the general approach to Native American identity, the acculturation scale may be too general, which may have impacted the findings within the study.

Therefore, further research, might more closely, add, remove, or modify the specific questions to measure acculturation more accurately. This would require specific investigation with tribal members. This approach may be worthwhile to apply these concepts more sensitively to this tribal group. Consideration of alternative measures may also be possible when trying to measure acculturation within this population.
Second, these results should not be generalized to the greater population and can only be understood as a sample of this tribe who worked with the researcher to complete the research. Every tribe has various characteristics and nuances that should be taken into consideration working with them for research purposes. The lived experience of these individuals is their own and should not be compared to individuals from other tribal nations. Each tribal nation has customs that vary across the tribal nations and consideration of intertribal differences need to be made when utilizing the findings from this research project.

In addition, the order in which the measures were presented to each individual was not randomized. The order of the measures was the same across each individual who completed the survey. The order in which the measures were completed was the demographics, CES-D, NA CIS scale, White CIS scale and SCS. The researcher did not shuffle the order of the measures prior to releasing the study to the participants. We are not able to speculate how this impacted the data. However, having seen these in a particular order may have influenced expectations or answers, and these results should be considered with this in mind. Future researchers may consider changing up the order of the surveys in order to ensure each survey is getting varied presentation in the study.

Finally, future researchers should continue to explore the relationship between acculturation, self-compassion and depression given that the current study was exploratory. Exploring the relationship between the study variables with other tribes, can contribute to understanding of whether there is a relationship with culture, self-compassion and depression are represented in in other tribes or specific to this northeastern tribe. By continuing to research these factors, the findings can help clinicians understand the benefits to exploring self-compassion with Native Americans who are experiencing symptoms of depression. Clinicians will also
continue to understand the impact of culture on Native Americans and its relationship with lowering depression scores.

**Conclusion**

The current research study was an exploratory study examining the relationship between self-compassion, depression and acculturation in a sample of Native Americans from a tribe in the Northeastern U.S. While the research was exploratory, we were able to find relationships across the variables, which furthered our understanding of each variable and will help us to develop further research projects in this domain. While we were unable to find culture as a moderator, we were able to discover a relationship between culture and depression and its possible impact on this sample of Native Americans. It may be beneficial to incorporate the use of culture to lower symptoms of depression with this tribe. Additionally, given the relationship that was found between depression and self-compassion it’s beneficial to discuss the use of self-compassion techniques with individuals struggling with depression with this tribe. While this was not a study looking at therapy techniques, future research could investigate the application of self-compassion approaches to Native American individuals who are struggling with depression on this reservation.
References


doi:http://dx.doi.org/weblib.lib.umt.edu:8080/10.1017/S0033291704003514


doi:http://dx.doi.org/weblib.lib.umt.edu:8080/10.1007/s40615-014-0045-z


http://sctribe.com/service/welfare/

Doi:10.1037/a0025434


doi:http://dx.doi.org/weblib.lib.umt.edu:8080/10.1037/pas0000629


doi:http://dx.doi.org/weblib.lib.umt.edu:8080/10.1080/00223891.2016.1269334


doi:10.1017/S0033291705005623


U.S. National Archives & Records Administration (2020, April 19). *An Act to Provide for the Allotment of Lands in Severalty to Indians on the Various Reservations (General Allotment Act or Dawes Act).*


DOI: 10.1300/J137v02n01_03


Appendix A

Demographic Characteristics

Table 1

Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 – 25</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>26 – 35</td>
<td>77</td>
<td>77</td>
</tr>
<tr>
<td>36 – 45</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>46 – 55</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>56 – 65</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Male</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Intersex</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Man</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Transgender</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sexual Identity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual or Straight</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Gay or Lesbian</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Bisexual</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Asexual</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Pansexual</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, never married</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Married</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Live-In Partner</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Widowed</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Racial and Ethnic Identities
<table>
<thead>
<tr>
<th>Native American</th>
<th>100 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physically Live</td>
<td></td>
</tr>
<tr>
<td>On Reservation</td>
<td>34 34</td>
</tr>
<tr>
<td>Live within 15 miles of reservation</td>
<td>66 66</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>9 9</td>
</tr>
<tr>
<td>Some High School</td>
<td>10 10</td>
</tr>
<tr>
<td>High School</td>
<td>14 14</td>
</tr>
<tr>
<td>Some College</td>
<td>29 29</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>14 14</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>7 7</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>16 16</td>
</tr>
<tr>
<td>Missing</td>
<td>1 1</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
</tr>
<tr>
<td>Full Time</td>
<td>71 71</td>
</tr>
<tr>
<td>Part Time</td>
<td>18 18</td>
</tr>
<tr>
<td>Seasonal</td>
<td>4 4</td>
</tr>
<tr>
<td>Laid Off</td>
<td>3 3</td>
</tr>
<tr>
<td>Retired</td>
<td>3 3</td>
</tr>
<tr>
<td>Choose not to report</td>
<td>1 1</td>
</tr>
<tr>
<td>Total Participants</td>
<td>100 100</td>
</tr>
</tbody>
</table>
Appendix B

Demographic Information

Age: __

Biological Sex:
- Female
- Male
- Intersex
- Prefer not to respond

Gender:
- Female
- Male
- Transgender
- Other: ________________
- Prefer not to respond

Sexual Orientation:
Do you consider yourself to be:
- Heterosexual or Straight
- Gay or Lesbian
- Bisexual
- Asexual
- Pansexual
- Other: ________________
- Prefer not to respond

Race/Ethnicity:
- African American/Black
- Asian/Pacific Islander
- Hispanic/Latino
- Native American/American Indian
- White
- Other: ________________
- Prefer not to respond

Which tribe(s) do you affiliate with:

________________________________________________________________
Where do you reside:
  __On reservation
  __Close to reservation within 15 miles
  __Off reservation farther than 15 miles

Relationship Status:
  __Single, never married
  __Married
  __Live-in Partner
  __Widowed
  __Divorced
  __Separated

Highest level of education achieved:
  __Elementary School
  __Some High School
  __High School
  __Some College
  __Associates Degree
  __Bachelor’s Degree (BA or BS)
  __Master’s Degree (MA, MSW, MBA, etc.)
  __Doctoral Degree (PhD)
  __Professional Degree (DVM, JD, MD)

Currently Employed:
  __Yes, Full-Time
  __Yes, Part-Time
  __Yes, Seasonal
  __No, Laid Off
  __No, Retired
  __No, Choose not to
  __No, Student
  __No, Other: _______________________

How would depression be described in your culture?

________________________________________________________________
Appendix C

Center for Epidemiological Studies Depression Scale

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

Rating Scale: 1) Rarely or None of the Time (less than a day), 2) Some or little of the time (1-2 days) 3) Occasionally, or a moderate amount of time (3-4 days), 4) Most or all of the time (5-7 days)

1. I was bothered by things that usually don’t bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people dislike me.
20. I could not get “going.”
Appendix D

Orthogonal Cultural Identification Scale

Please make one response for each question.

Rating Scale: 0) None 1) A few 2) Some 3) A lot

1. 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 did your family have when you were growing up that are based on…
   a. White Culture
   b. Native American Culture

2. In the future, with your own family, will you do special things together or have special traditions that are based on….
   a. White Culture
   b. Native American Culture

3. To what extent does your family live by or follow….
   a. White Culture
   b. Native American Culture

4. To what extent do you live by or follow….
   a. White Culture
   b. Native American Culture

5. To what extent is your family comfortable….
   a. White Culture
   b. Native American Culture

6. To what extent are you comfortable….
   a. White Culture
   b. Native American Culture
Appendix E

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost
never
1
2
3
4
5
Almost
always
_____ 1. I’m disapproving and judgmental about my own flaws and inadequacies.
_____ 2. When I’m feeling down I tend to obsess and fixate on everything that’s wrong.
_____ 3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.
_____ 4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.
_____ 5. I try to be loving towards myself when I’m feeling emotional pain.
_____ 6. When I fail at something important to me I become consumed by feelings of inadequacy.
_____ 7. When I’m down and out, I remind myself that there are lots of other people in the world feeling like I am.
_____ 8. When times are really difficult, I tend to be tough on myself.
_____ 9. When something upsets me I try to keep my emotions in balance.
_____ 10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
_____ 11. I’m intolerant and impatient towards those aspects of my personality I don’t like.
_____ 12. When I’m going through a very hard time, I give myself the caring and tenderness I need.
_____ 13. When I’m feeling down, I tend to feel like most other people are probably happier than I am.
_____ 14. When something painful happens I try to take a balanced view of the situation.
15. I try to see my failings as part of the human condition.
16. When I see aspects of myself that I don’t like, I get down on myself.
17. When I fail at something important to me I try to keep things in perspective.
18. When I’m really struggling, I tend to feel like other people must be having an easier
time of it.
19. I’m kind to myself when I’m experiencing suffering.
20. When something upsets me I get carried away with my feelings.
21. I can be a bit cold-hearted towards myself when I’m experiencing suffering.
22. When I’m feeling down I try to approach my feelings with curiosity and openness.
23. I’m tolerant of my own flaws and inadequacies.
24. When something painful happens I tend to blow the incident out of proportion.
25. When I fail at something that's important to me, I tend to feel alone in my failure.
26. I try to be understanding and patient towards those aspects of my personality I don't
like.
Appendix F

Levels of Depression Reported in CES-D

Table 2

<table>
<thead>
<tr>
<th>Levels of Depression Reported in CES-D</th>
<th>Number of Participants</th>
<th>Percent of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Clinical Significance (0-15)</td>
<td>12</td>
<td>12.4</td>
</tr>
<tr>
<td>Depression Symptoms (16 +)</td>
<td>85</td>
<td>87.6</td>
</tr>
</tbody>
</table>
Appendix G

Means and Standard Deviations of All Variables

Table 3

Means and Standard Deviations of All Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>100</td>
<td>29.67</td>
<td>6.37</td>
</tr>
<tr>
<td>Biological Sex</td>
<td>100</td>
<td>1.57</td>
<td>0.52</td>
</tr>
<tr>
<td>Gender</td>
<td>100</td>
<td>1.73</td>
<td>0.55</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td>100</td>
<td>2.0</td>
<td>1.12</td>
</tr>
<tr>
<td>Relationship Status</td>
<td>100</td>
<td>2.21</td>
<td>0.99</td>
</tr>
<tr>
<td>Education Level</td>
<td>99</td>
<td>4.15</td>
<td>1.80</td>
</tr>
<tr>
<td>Employment Status</td>
<td>100</td>
<td>1.52</td>
<td>1.04</td>
</tr>
<tr>
<td>CESD Total Scores</td>
<td>97</td>
<td>28.39</td>
<td>9.07</td>
</tr>
<tr>
<td>OCIS Native American Total Scores</td>
<td>98</td>
<td>11.11</td>
<td>3.83</td>
</tr>
<tr>
<td>OCIS White Total Scores</td>
<td>96</td>
<td>8.39</td>
<td>3.38</td>
</tr>
<tr>
<td>Self-compassion Total Scores</td>
<td>94</td>
<td>76.52</td>
<td>12.19</td>
</tr>
</tbody>
</table>
### Appendix H

#### Pearsons Correlation Coefficient Among All Variables

**Table 4**

*Pearson’s Correlation Coefficients Among All Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CES-D Total Scores</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Self compassion scale total scores</td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. OCIS Native American total scores</td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. OCIS White total scores</td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Biological Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Relationship Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Highest Education Attained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>11. Employment Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>—</td>
</tr>
</tbody>
</table>

*Note: *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed). Biological sex: 1 = Female, 2 = Male, 3 = Intersex; Gender: 1 = Female, 2 = Male, 3 = Transgender; Relationship Status: 1 = Single, never married, 2 = Married, 3 = Live-in Partner, 4 = Widowed, 5 = Divorced, 6 = Separated; Sexual Orientation: 1 = Heterosexual or Straight, 2 = Gay or Lesbian, 3 = Bisexual, 4 = Asexual, 5 = Pansexual; Highest Education Attained: 1 = Elementary School, 2 = Some High School, 3 = High School, 4 = Some College, 5 = Associates Degree, 6 = Bachelor’s Degree, 7 = Master’s Degree, 8 = Doctoral Degree, 9 = Professional Degree; Employment Status: 0 = No, other, 1 = Full time, 2 = Part time, 3 Seasonal, 4 = Laid off, 5 = Retired, 6 = Choose not to answer, 7 = Student.*
Appendix I

Moderator Analysis Table

Table 5

Moderator Analysis for Both Models of NA Identity and White Identity

<table>
<thead>
<tr>
<th>Effect</th>
<th>Model 1 (NA Identity)</th>
<th>Model 2 (White Identity)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>β</td>
</tr>
<tr>
<td>Constant</td>
<td>74.14**</td>
<td>6.49</td>
</tr>
<tr>
<td>SCS Total Scores</td>
<td>-.49**</td>
<td>-.64</td>
</tr>
<tr>
<td>CIS</td>
<td>-.83**</td>
<td>-.35</td>
</tr>
<tr>
<td>Moderator</td>
<td>.30</td>
<td>.06</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.47</td>
<td>.38</td>
</tr>
</tbody>
</table>

Note. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).
### Appendix J

**Item Analysis for Self-Compassion Scale**

**Table 6**

Item Level Analysis for SCS

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1: I’m disapproving and judgmental about my own flaws and inadequacies.</td>
<td>3.33</td>
<td>1.26</td>
<td>99</td>
</tr>
<tr>
<td>Question 2: When I’m feeling down I tend to obsess and fixate on everything that’s wrong.</td>
<td>3.02</td>
<td>1.41</td>
<td>100</td>
</tr>
<tr>
<td>Question 3: When things are going badly for me, I see the difficulties as part of life that everyone goes through.</td>
<td>3.09</td>
<td>1.28</td>
<td>100</td>
</tr>
<tr>
<td>Question 4: When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.</td>
<td>2.67</td>
<td>1.33</td>
<td>100</td>
</tr>
<tr>
<td>Question 5: I try to be loving towards myself when I’m feeling emotional pain.</td>
<td>3.05</td>
<td>1.40</td>
<td>100</td>
</tr>
<tr>
<td>Question 6: When I fail at something important to me I become consumed by feelings of inadequacy.</td>
<td>2.83</td>
<td>1.44</td>
<td>99</td>
</tr>
<tr>
<td>Question 7: When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.</td>
<td>3.13</td>
<td>1.30</td>
<td>100</td>
</tr>
<tr>
<td>Question 8: When times are really difficult, I tend to be tough on myself.</td>
<td>3.08</td>
<td>1.38</td>
<td>99</td>
</tr>
<tr>
<td>Question 9: When something upsets me I try to keep my emotions in balance.</td>
<td>3.13</td>
<td>1.34</td>
<td>100</td>
</tr>
<tr>
<td>Question 10: When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.</td>
<td>3.06</td>
<td>1.35</td>
<td>100</td>
</tr>
<tr>
<td>Question 11: I’m intolerant and impatient towards those aspects of my personality I don’t like.</td>
<td>2.81</td>
<td>1.22</td>
<td>95</td>
</tr>
<tr>
<td>Question 12: When I’m going through a very hard time, I give myself the caring and tenderness I need.</td>
<td>3.05</td>
<td>1.31</td>
<td>100</td>
</tr>
</tbody>
</table>
Question 13: When I’m feeling down, I tend to feel like most other people are probably happier than I am.  
2.77 1.35 100

Question 14: When something painful happens I try to take a balanced view of the situation.  
2.89 1.36 99

Question 15: I try to see my failings as part of the human condition.  
3.19 1.34 99

Question 16: When I see aspects of myself that I don’t like, I get down on myself.  
2.83 1.34 100

Question 17: When I fail at something important to me I try to keep things in perspective.  
3.00 1.37 100

Question 18: When I’m really struggling, I tend to feel like other people must be having an easier time of it.  
2.89 1.32 100

Question 19: I’m kind to myself when I’m experiencing suffering.  
3.05 1.37 100

Question 20: When something upsets me I get carried away with my feelings.  
2.77 1.35 100

Question 21: I can be a bit cold-hearted towards myself when I'm experiencing suffering.  
2.75 1.30 100

Question 22: When I'm feeling down I try to approach my feelings with curiosity and openness.  
2.96 1.31 100

Question 23: I’m tolerant of my own flaws and inadequacies.  
3.23 1.30 99

Question 24: When something painful happens I tend to blow the incident out of proportion.  
2.77 1.28 99

Question 25: When I fail at something that's important to me, I tend to feel alone in my failure.  
2.47 1.29 99

Question 26: I try to be understanding and patient towards those aspects of my personality I don't like.  
2.84 1.25 100

Note. Directions to this scale include “Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale: 1 – Almost Never to 5 – Almost Always.”
## Appendix K

### Item Analysis for Native American Identity CIS

**Table 7**

**Item Level Analysis for CIS for Native American Identity**

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1: 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 did your family have when you were growing up that are based on…</td>
<td>1.65</td>
<td>.90</td>
<td>99</td>
</tr>
<tr>
<td>Question 2: In the future, with your own family, will you do special things together or have special traditions that are based on….</td>
<td>2.00</td>
<td>.93</td>
<td>99</td>
</tr>
<tr>
<td>Question 3: To what extent does your family live by or follow….</td>
<td>1.85</td>
<td>.90</td>
<td>99</td>
</tr>
<tr>
<td>Question 4: To what extent do you live by or follow….</td>
<td>1.84</td>
<td>.91</td>
<td>99</td>
</tr>
<tr>
<td>Question 5: To what extent is your family comfortable….</td>
<td>1.91</td>
<td>1.00</td>
<td>98</td>
</tr>
<tr>
<td>Question 6: To what extent are you comfortable….</td>
<td>1.82</td>
<td>.93</td>
<td>99</td>
</tr>
</tbody>
</table>

*Note.* Directions to this scale include “Please make one response for each question. Rating Scale: 0) None 1) A few 2) Some 3) A lot”