MEASURING CULTURAL INTEGRITY THROUGH THE LENS OF

TRANSCULTURATION: AN EXAMINATION OF CULTURAL SUPPORT FOR NATIVE

AMERICAN COLLEGE STUDENTS

by

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Abstract

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Native American college students have higher rates of attrition when compared to their non-Native counterparts. In previous studies, researchers have attributed the academic (un)success of Native students in a postsecondary setting to cultural conflict. In this dissertation, I used quantitative methods to examine culture-specific support mechanisms for a sample of 1,066 Native American college students through the lens of transculturation (i.e., social isolation, cultural reciprocity, and resiliency) and identified factors of support that led to the preservation of cultural integrity (i.e., maintenance of cultural traditions and preservation of cultural identity) and to academic success. More specifically, I examined the relationship between perceptions of culture-specific support (e.g., tribe, family, faculty, staff, peers, higher education institution) and the latent construct of cultural integrity with GPA, persistence, cultural reciprocity, and cultural resiliency. Additionally, I was interested in exploring the intersectionality between cultural integrity and sexual identity for Native college students who identified as lesbian, gay, bisexual, transgender, two-spirit, or queer (LGBTTQ), and examine the relationship between culture-

specific support and academic outcomes for this subset of students. Furthermore, I elucidated on the history of Afro-Cuban transculturation and its application to the context of Native American higher education to demonstrate how researchers have used this theory to explain cultural exchange. Huffman adapted this theory to explain the socialization process for Native American students who attended predominately white institutions. Due to my findings, I expounded on Huffman's model of transculturation, and I presented an alternative model and definition of transculturation that in my view can be successfully employed to understand cultural exchange at the intersection of Indigeneity and other identity markers. My dissertation findings are reported in an article-based format which contains three completed manuscripts representing chapters 2, 3, and 4.

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CHAPTER 1

Introduction

In 1665, Harvard University student, Caleb Cheeshateaumuck (Wampanoag Tribe) was the first Native American to graduate in colonial America and one year after his graduation he died due to complications of "tuberculosis" (Carney, 1999). Unfortunately, his untimely demise has been the foreshadowing state of Native Americans in higher education. Since Caleb first arrived on Harvard University's campus nearly 380 years ago, Native Americans have been a visible, when convenient, discarded people within the higher education academe. Tierney (1993) described the research on the Native American college experience as:

> Relegated to footnotes in books about other minorities in the United States. Furthermore, what little information exists pertains to statistical summaries about when Indian students go to college, their rates of participation, leave-take, and the like. In many respects, Native Americans are invisible in academe, researchers neither study them nor do institutions devise specific strategies to encourage Indian students to attend, to participate and to graduate. (p. 309)

Tierney's comment on the status of Native Americans in 1993 was reflective of the state of Native Americans in higher education in 1665 and is the current state of Native American postsecondary education in 2019. In other words, when it comes to empirical higher education research Native Americans are statistically underpowered, ignored, and relegated to footnotes or an asterisk.

Since the 1960s, when enrollment for Native college students was approximately 2,000 nation-wide (Wright, 1991), Native Americans have steadily increased their presence on college campuses. As of 2016-2017, Native Americans comprised .8% (178,968) of the entire 2016-2017

undergraduate college-going population (U.S. Dept. of Education, 2018a). In contrast, individuals who identified as American Indian and Alaska Native alone or in combination comprised 1.7% of the entire 2010 U.S. population (U.S. Census Bureau, 2012), which has translated to the underrepresentation of Natives in higher education. Once on campus, the average rate of completion within four years for all students was approximately 40%, but for Native Americans, the average rate of completion was 24%, which is the second-lowest, behind African-Americans, for any demographic group who identified their racial status (McFarland et al., 2017).

Furthermore, from 2010-2011 to 2016-2017, Native Americans had the second highest percentage decrease in enrollment at 27% (65,580) while Native/Pacific Islanders had the most substantial percentage decrease by 34% (34,579) (U.S. Dept. of Education, 2019a). From 2010-2011 to 2016-2017 the overall associate degree conferment rate for all students increased by 3% (996,412), but Native Americans had the third most significant decrease of 8% (744) followed by White students at 9% (50,669) with Native Hawaiian/Pacific Islanders having had the largest percentage decrease at 25% (1,090) (U.S. Dept. of Education, 2019b). Meanwhile, Hispanic/Latinx students had the biggest percentage increase at 62% (77,151), followed by Asian students at 28% (11,110) (U.S. Dept. of Education, 2019b). Comparable to the associate degrees conferred trends, the overall rate of bachelor's degrees conferred increased by 12% (203,244), but Native American students experienced the only decline among all racial/ethnic categories at 17% (1,938) (U.S. Dept. of Education, 2019c). The underrepresentation of Native Americans in higher education, high attrition, and low enrollment and degree completion are all concerning issues for higher education institutions in the United States.

Unfortunately, most non-Native researchers predicated their scholarship on Native students' persistence on culturally deficient theories which emphasized that Native students cannot succeed in college because of their cultural integrity (i.e., maintenance of cultural traditions and cultural identity) (Huffman, 2010) which may impede their integration on postsecondary campuses. In other words, according to these cultural deficit theories (e.g., Student Involvement, Student Persistence), Natives must assimilate to mainstream culture to be academically successful by westernized academic standards. These westernized academic standards have been embedded in numerous student development theories and have been utilized to understand the Native American college experience. However, the student development theories and the instrument and surveys which used these theories that assessed college students' engagement and experiences have not always captured elements that are specific to underrepresented students. These theories were developed primarily by White males and validated mostly on middle-class, White male students (Pascarella & Terenzini, 1983; Perry, 1968). Therefore, I assert many of these theories and instruments lack cultural validity in assessing the unique college-going experiences of Native American students which invites new educational research perspectives on the issue.

To support the development of new theories and instruments, researchers need data. One problem is that Native American college students are under-researched; therefore, there is no specific information on their needs. Subsequently, Native American college students are underserved which leaves this population of students in a vulnerable position once they arrive on a university campus. It seems Native students did not reach a critical mass to deserve attention from the institutions that only assume they can support Native students without providing additional culture-specific, on-campus support services (e.g., Native American student center,

Native American advisor, cultural activities). Therefore, institutions anticipate these students should be academically successful as part of the mainstream, which leaves Native American college students grappling with how to accommodate their cultural integrity (i.e., maintenance of cultural traditions and cultural identity) within the higher education culture.

Additionally, due to Native American college students being under-researched and having encompassed a small fraction of the entire college-going population there is little to no research on Native American college students who possess multi-faceted marginalized identities. Specifically, (1) there is no research that focused on the college-going experiences of Native Americans who identify as lesbian, gay, bisexual, transgender, two-spirit, or queer (LGBTTQ) and (2) there is no research that examined the intersectionality of gender, sexual, and cultural identity for Native American college students. For all LGBTQ+ college students of color, there is a shortage of literature that explored their experiences. Duran (2018) found 68 pieces of scholarship that focused on LGBTQ+ college students of color; however, there were no prominent studies that empirically investigated the experiences of Native LGBTTQ students in college settings. This shows clear research gaps in studying the Native American college-going youth and the complexity of their lived experiences when joining the westernized higher education community.

Statement of the Problem

Historically, the scholarship of academic success (e.g., grade point average, persistence, completion) and cultural integrity (i.e., maintenance of cultural traditions and cultural identity) for Native American college students was evaluated qualitatively through storytelling. Storytelling has been and is still an inherent part of the culture, history, and education of the Indigenous peoples of North America. Tribal critical race theory has legitimized storytelling as

an authentic form of data collection and that "stories are not separate from theory, they make up theory" (Brayboy, 2005, p. 439). Therefore, within the previous 10-years (2009-2019), many Native American scholars, who studied the unique college-going process, predominantly used qualitative methods and Indigenous methodologies to understand and conceptualize these experiences (Drywater-Whitekiller, 2010; Guillory, 2009; Keene, 2016; Lee, 2009; Makomenaw, 2014; Shield, 2009; Shotton, Tachine, Nelson, Minthorn, & Waterman, 2018; Windchief & Joseph, 2015). Additionally, many non-Native scholars, who studied Native American higher education, lacked the breadth and cultural competency to understand the unique experiences of Native college students and utilized culturally-deficit models (Huffman, 2008).

Therefore, there is little empirical quantitative research that focused on the distinctive cultural elements of the Native American postsecondary experience. Tierney (1992) summarized the state of Native American higher education research by Hodgkinson, Hamilton-Outtz, and Obarakpor (1986), Astin (1982), and Fries (1987), researchers who studied Native American higher education in the early 1990s, as follows: (1) a paucity of data on Natives who entered college and who graduated; (2) Native American samples being so small; therefore, statistical power and the ability to generalize the results to other Natives, from other tribes, became an issue; and (3) researchers were forced to include Natives into the 'other' category. Since 1993, the output of peer-reviewed scholarship on the Native American higher education experience, using quantitative methods, has been stagnant. According to Lopez (2018), only 19 peer-reviewed quantitative articles have been published from 1993 to 2016 on Native American higher education.

Regarding the state of Native American higher education, I assert there are two problematic issues that researchers need to address. First, researchers need to produce

quantitative empirical research that moves beyond descriptive statistics to paint a vivid picture of what it means to be Native American and academically successful while maintaining cultural integrity. Empirical research can also incorporate additional factors (e.g., gender, first-generation status, sexual orientation) that intersect with the cultural identity for Native American college students. Second, researchers should use theoretical frameworks that honor and respect cultural integrity for Native American college students. Due to the lack of research addressing the aforementioned problems, it is vital that quantitative research is produced so that institutional practitioners can understand the importance that culture has in the lives of Native Americans going to college and what role campus practitioners and institutions can play in bridging culture and academic success for Native students. By developing appropriate instruments, collecting and analyzing quantitative data, research on Native American college students can allow for the exploration of theories that validate the importance of cultural integrity on the academic success of these students.

Purpose of the Study

The purpose of this dissertation was to gain a deeper understanding of the college-going experiences of Native Americans and to explore additional aspects related to LGBTQ college students of color. Specifically, I examined the relationship between perceptions of culture-specific support (e.g., tribe, family, faculty, staff, peers, higher education institution) and the latent construct of cultural integrity with academic and cultural outcomes through the lens of transculturation. Additionally, I expounded on the theory of transculturation and proposed an alternative transculturation theoretical framework. The objectives of this dissertation are as follows:

(1) To present a comparative and critical analysis on the histories of Afro-Cubans and Native Americans in order to assert why transculturation is an appropriate framework for assessing Native American postsecondary academic and cultural success.

(2) To create an alternative model that does not use a cultural deficient lens when assessing Native American educational achievement.

(3) To address the lack of quantitative empirical research for the college experiences of Native American students by developing a new instrument and collecting data.

(4) To provide more evidence, from the student's perspective, on the perceptions of support from the participant's family, tribe, peers, institution, faculty, and staff; and to examine the relationship between these perceptions of support and academic and cultural success.

(5) Finally, to expand the discussion on cultural integrity and include other social markers that describe vulnerable populations such as Native American students who identify as lesbian, gay, bisexual, transgender, two-spirit, or queer (LGBTTQ).

To align these overarching objectives with the purpose of the study, I am presenting the research and findings in an article-based dissertation. In Chapter Two, I address research objectives one and two by analyzing both the histories and transculturation theory for Afro-Cubans and Native Americans. Additionally, I extend on the existing transculturation theory by offering an alternative model. Chapter Three validates the extended transculturation framework in a structural equation framework to measure cultural integrity and provides statistical findings regarding perceptions of support and validating the NAICSI; therefore, addressing research objectives three and four. Finally, in Chapter Four I present quantitative empirical research for Native American college students who identified as LGBTTQ and how perceptions of support

can lead to higher levels of cultural integrity. Therefore, addressing research objectives four and five.

Background to the Problem

In this section, an overview of assimilation in higher education and a brief overview of the history of assimilation will be presented followed by cultural theories that researchers have applied to Native Americans. Next, empirical research and instruments based on different cultural theories will be introduced. Finally, a summary on institutional, family, and tribal support that is essential to the success of Native American college students will be provided.

Native American Assimilation in Higher Education

Researchers have concluded (Blackwell, 1987; Hurtado, Milem, Clayton-Pedersen, & Allen, 1998; Yosso, Smith, Ceja & Solórzano, 2009) a negative campus climate adversely influenced the retention of and sense of belonging for minority students. Furthermore, researchers (Benjamin, Chambers & Reiterman, 1993; Pewewardy & Frey, 2004; Tierney, 1992) have indicated that institutional support mechanisms, which helped students with transitioning and dealing with campus hostility, are paramount in the retention of Native American college students. Additionally, researchers have demonstrated that Native American college students who used their cultural identity as a strength were academically successful (Huffman, 1991, 2010, 2011; Okagaki, Helling, & Bingham, 2009).

In other words, students who had a higher level of cultural integrity were less likely to assimilate and were more culturally resilient. However, depending on the academic institution, preserving cultural integrity can be a catalyst or an impediment for this group of students, which is especially true when Native Americans attended predominately white institutions (Huffman, 1991). In the late 1990s, Tierney (1999) posited the concept of cultural integrity to create a

paradigm shift from utilizing cultural assimilation to resolve the disproportionate educational

inequalities that students of color experience in the United States. This concept would put the

burden on the institution in creating an environment to where a student's cultural background

could be a catalyst for their academic success instead of a barrier. Unlike Tinto's (1993) model,

students do not have to assimilate or commit a form of cultural suicide to be successful (Tierney,

1999). To understand the effects of assimilation and indoctrination into the western education

system, I will provide a history and critique of Native American assimilation in order to

understand the need to adopt a culture-specific perspective when integrating Native American

student to higher education campuses.

Assimilation has been both the theoretical framework and the federal policy of Native

American education. Since the inception of the first boarding school in 1879, the mission of

Carlisle Indian School was to "civilize" and "Americanize" Native Americans through the

concept of assimilation (Rose & Fear-Segal, 2016). From the 1800s through the 1900s there were

many contradictory and congruent federal policies in place regarding Native Americans and their

place in American society. Some of the national policies leaned on tribal sovereignty, while other

legislation preferred assimilation, and specific policies and practices favored decimation.

The U.S. government enacted assimilation practices in the form of education through

boarding schools. Government subsidized boarding schools, often with religious affiliation,

increased and took heed to the assimilation practices of Carlisle Indian School. Consequently,

assimilation trickled its way through boarding schools across the nation (Washburn, 1986).

Assimilation was not a social experiment to integrate Native Americans into "White" society; it

was a federal policy that forced Native American children hundreds, if not thousands, of miles

from their homelands into boarding schools.

At these schools, Natives were forbidden to speak to their families and tribal members; additionally, tribal language, customs, and traditions were prohibited. This form of 'education' was completed because the U.S. government believed that Native Americans would become extinct if European-American ideals and customs were not adopted (Washburn, 1986). In the Kennedy Report (U.S. Senate, 1969), which was a national report on the state of Indian Education, the findings highlighted the abhorrent punishments for speaking Native languages that were enforced to break Native children from their customs.

These forced assimilation practices were in effect up until the 1960s when Congress passed the Indian Relocation Act. This act was a planned effort, through policies and laws, to assimilate Natives into mainstream society through the relocation of Natives from reservations to urban areas (Schwarz, 2013). In Ben Nighthorse Campbell's 2007 speech regarding the U.S. government's termination and assimilation practices he stated:

> If you can't change them, absorb them until they simply disappear into the mainstream culture....in Washington's infinite wisdom, it was decided that tribes should no longer be tribes, never mind that they had been tribes for thousands of years. (Brown-Pérez, 2017, p. 14)

The U.S. government relocated approximately 33,000 Native Americans (Prucha, 1986), between 1953-1960, to one of nine relocation cities: Oakland, San Francisco, St. Louis, Chicago, Oklahoma City, Tulsa, Cincinnati, Cleveland, or Waukegan (Schwarz, 2013).

With the ultimate end goal of assimilation, the Bureau of Indian Affairs (BIA) lauded this relocation opportunity as a means for a better life and distributed pamphlets and brochures of:

> Pictures of executives dressed in white shirts, wearing ties and sitting behind business desks [which] insinuated to Indians that similar occupational positions could be obtained.

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Photos of a white frame house with shutters in suburban America enticed women,

suggested that families could have similar homes. (Schwarz, 2013, p. 19)

Natives who agreed to relocate were given their first month's expenses, with little to no

vocational training, and these Natives were placed into dead-end jobs; the results were dismal at

best (Schwarz, 2013). Isolation, poverty, and a sharp contrast to European ideals forced some

Natives to return to their reservations (Schwarz, 2013). Natives, who stayed in these urban areas,

struggled with their identity and urban Natives had seen less of themselves as Apache, Navajo,

Lakota, etc. Instead, they viewed themselves as just Native (Schwarz, 2013). It is a fair

assumption that the assimilation process was done from a western perspective without

understanding the needs and desires of Native American youth and adults. Therefore, it is

essential to understand this less successful experience when moving toward a culture-specific

integration of Native Americans in higher education that would preserve their cultural identity.

Cultural Theories

In this section, I will discuss three cultural theories and how researchers have used these

theories to assess cultural identity for Native Americans. Researchers have used acculturation to

understand the socialization process for individuals or groups from different cultures, the

resulting cultural deficit that followed, and the creations of new cultural elements. Enculturation

has been used to explain the life-long learning of one's culture, which can counteract a cultural

deficit. Finally, transculturation, which erupted from events preceding and proceeding the Cuban

Nationalist Movement, has been used to analyze the coexistence of two or more cultures within a

society based on an unequal power structure.

Acculturation

The theory of acculturation can be formally referenced to 1936 when U.S. anthropologists defined the theory of acculturation and later applied the theory to seven Native American tribes; however, its origin can be traced to 1540 when the Zuni Indians and Coronado established first contact (Vogt, 1957). Redfield, Linton, and Herskovits (1936) defined the theory as, "Acculturation comprehends those phenomena which result when groups or individuals having different cultures comes into continuous first-hand contact, which subsequent changes in the original patterns of either or both groups" (p. 149).

The theory was later expounded upon in an edited monograph *Acculturation in Seven American Indian Tribes* where seven anthropologists learned that acculturation was highly variant among seven Native American tribes (i.e., Puyallup of Washington, White Knife Shoshoni of Nevada, Southern Ute of Colorado, Northern Arapaho of Wyoming, the Fox of Iowa, Alkatcho Carrier of British Colombia, and the San Ildefonso of New Mexico) (Linton, 1963). Additionally, further discovery of the seven individual anthropology inquires of the seven tribes indicated that none of the tribes had a full immersion (i.e., assimilation) into the White culture but showed resistance when confronted with the possibility of the transmutation of both cultures (Linton, 1963). Although the general concept of acculturation is the reconciliation of two cultures (e.g., cultural hybridity), assimilation is an intended byproduct of acculturation (Redfield, Linton, & Herskovits, 1936).

Anthropologists and theorists expounded on the acculturation theory in the 1950. The acculturation framework was based on two variables (1) "the nature of the two cultures, which come into contact and (2) the contact conditions" (Vogt, 1957, p. 139). In turn, these two variables set the stage for an intercultural and complicated process in which tribes in different

regions of the United States held onto certain cultural customs and traditions with varying levels of rigor which determined their degree of acculturation (Vogt, 1957). Although acculturation allows for an individual or group to adopt another culture through more harmonious means when compared to assimilation it is still problematic for (1) there is still an acquiescence of culture and (2) acculturation is a byproduct of assimilation.

Enculturation

Another cultural theory is enculturation which is the preservation, encapsulation, and the consummation of one's culture and where enculturation is on a continuum "whereby the more one is enculturated, the less one is acculturated" (Garrett, 1996, p.4). Garcia and Ahler (1992) defined enculturation as the "lifelong learning of one's own culture," (p. 23) and how this process is in tandem with traditional customs, beliefs, and tribal languages (Garrett & Pichette, 2000). A distinct delineation between enculturation and assimilation is that enculturation is not based on blood quantum but more on how individuals align with their traditional culture (Garrett & Pichette, 2000). Based on Garrett's (1996) premise, I view enculturation as retribution to assimilation. In other words, the intended and unintended consequences of acculturation and assimilation result in a cultural deficit whereas enculturation rebukes this process through a profusion of culture.

Transculturation

Transculturation was introduced by Fernando Ortíz in his book *Cuban Counterpoint: Tobacco and Sugar* and focused on the implications of colonization up until the 1930s (Ortíz, 2003). During the 1920s and 1930s, the Cuban Nationalist movement had taken place (Benjamin, 1975). This period brought great civil unrest within the country; in order to ease racial tensions White academics, such as Ortíz, proposed the idea of *mestizaje*, which was the concept of a race-

less, one culture society (Arnedo-Gomez, 2006). However, this concept was problematic because White scholars predicated *mestizaje* on European ideals and cultural elements (Arnedo-Gomez, 2006).

The conceptual theory of transculturation was a socialization process based on the encounter of Indigenous, Afro, and Anglo cultures and the divergence of cultures or the creation of new cultural elements and was never a delineated process (Ortíz, 2003). Ortíz (2003) loosely centered the theory on five stages: (1) enslavement; (2) compromise; (3) adjustment; (4) self-assertion; and (5) integration. Unlike acculturation, which explained the transitional process from one culture to another, transculturation embodied both deculturation and neoculturation where deculturation is a period of cultural loss due to colonization and neoculturation is the formation of new and blended cultural creations (Ortíz, 2003). The overarching theme of transculturation assessed the unequal power dynamic between the dominant and subordinate groups and the consequences of these relationships (Hirabayashi, 2002; Ortíz, 2003). Ortíz (2003) stated, "subordinate groups are highly selective and inventive in absorbing materials from the metropolis, and they develop many ways of maintaining cultural integrity" (p. 103). Previously stated, Ortíz (2003) loosely defined transculturation in a speech given in Havana and admitted that only a small minority realized the fifth stage of integration.

In the 1980s, Terry Huffman, an American, White sociologist, adapted the theory of transculturation to explain the cultural conflict that traditional Native Americans, from reservations, faced when attending college (Huffman, 1990). Huffman (1990) asserted that Natives found the idea of assimilating repulsive and in turn would leave college when faced with any form of cultural conflict. In his adaption of transculturation, Huffman proposed the process happened in four stages: (1) initial alienation; (2) self-discovery; (3) realignment; and (4)

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participation (Huffman, 1990). Stage one dealt with the initial isolation that Native American students experience once they are away at a mainstream institution; there, they felt like cultural outsiders (Huffman, 1990s). Due to a lack of family and tribal connections, these students felt alienated and were at their most vulnerable in leaving the institution (Huffman, 1990).

Stage two assessed how students reconciled their loneliness. If students overcame their alienation, a transculturation threshold is achieved (Huffman, 1990). A turning point in this stage occurred when Native students realized they had succeeded up until that point because they are Native, not despite their Native identity (Huffman, 1990). This crossroads is an essential demarcation because other theories such as acculturation and assimilation assume that a cultural deficit or cultural suicide must transpire to succeed. In this state, students made a conscious decision to interact in both cultural worlds while using their identity and culture as an anchor (Huffman, 1990).

Stage three involved the realignment of the students "personal, social, and academic worlds" (Huffman, 1990, p. 12). Within this stage, students operated within their new environment and crossed cultural boundaries when merited (Huffman, 1990). Stage four focused on participation where Native students utilize their Native American heritage as a source of strength and in turn, they were more studious (Huffman, 1990). During this final stage, transculturated students sought out moral support when necessary to continue their difficult educational journey (Huffman, 1990). In his findings of Native American college students, transculturated students had marginally higher GPAs than assimilated students (Huffman, 2008).

Instruments Based on Cultural Theories

Notably, researchers have conducted instrument validation studies which measured Native American cultural attachment beginning with the Native Family Acculturation Scale

(NFAS) (Boyce & Boyce, 1983). The NFAS measured acculturation, which is the blending of cultures on the home environment and family interaction between the traditional Navajo and the Anglo worlds (1983). Within the same study another scale, the Navajo Community Acculturation Scale (NCAS) (Boyce & Boyce, 1983), was developed and assessed degrees of acculturation for Navajo communities. Additionally, the Rosebud Personal Opinion Survey (RPOS) (Hoffman, Dana, & Bolton, 1985) measured acculturation for Lakota Sioux Native Americans based on five factors: (1) social structures; (2) cultural attitudes; (3) blood quantum; (4) language; and (5) education and occupational status. Moreover, the Life Perspectives Scale, measured acculturation through cognitive, affective/spiritual, behavioral, and social/environmental factors for Native Americans (LFS) (Choney, Berryhill-Paapke, & Robbins, 1995). Finally, the Native American Acculturation Scale (NAAS) (Garrett & Pichette, 2000) assessed acculturation through core self, cultural self-expression, and cultural and community engagement.

Comparatively, other scales measuring bi-culturalism, cultural and historical loss, and enculturation included the Living in Two Worlds Survey, (LTWS) (Bryant & LaFromboise, 2005; LaFromboise, 1999) which measured cultural competence and bi-culturalism for Native American adolescents. Bi-Culturalism is a unique concept because it focused on having the necessary traits to function in mainstream society (Little Solider, 1985; Garrett, 1996). The LTWS measured bi-culturalism on cultural knowledge, support, community membership, friendship, and communication in both the American Indian and dominant society.

The Historical Loss Scale (HLS) (Whitbeck, Adams, Hoyt, & Chen, 2004) measured historical loss (i.e., loss of land) and cultural loss (i.e., loss of language) for American Indians. In the same study, the researchers reported on their newly created Historical Loss Associated Symptoms Scale (HLASS) (Whitbeck et al., 2004) which focused on the aftermath and

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symptoms associated with the experience of historical loss. Zimmerman, Ramirez-Valles, Washienko, Walter, and Dyer (1996) developed a measure of enculturation for Native American youth by assessing cultural affinity, cultural identity, and involvement in cultural activities. The American Indian Enculturation Scale (AIES) (Winterowd, Montgomery, Stumbling-Bear, Harless & Hicks, 2008) examined enculturation, through behaviors and spiritual factors, for Native Americans seeking counseling.

Instruments that have assessed cultural attachment for Native American college students included two peer-reviewed studies. The first study was Reynolds, Sodano, Eckland, and Guyker's (2012) validation study on the Native American Acculturation Scale (NAAS), which included two samples ($N = 216$) and ($N = 273$). The results concluded the latent constructs of core self, cultural self-expression and cultural and community engagement were useful in understanding acculturation in Native American college students. The second study was the Native American Collective Orientation and Pursuits in Education (NACOPE) (Thompson, Johnson-Jennings, & Nitzarim, 2013) in which the researchers identified a relationship between culturally specific non-cognitive factors and persistence attitudes for 156 Native American college students. Although both studies included college students, the NAAS validation study (Reynolds et al., 2012) did not examine the effect of cultural attachment in relation to cultural reciprocity and cultural resiliency nor did it explore the impact of cultural attachment to academic outcomes. Also, the NACOPE study (Thompson et al., 2013) did not address the validation of the instrument with a subsequent confirmatory factor analysis component.

In conclusion, the instrument validation results showed that the preservation of Native American cultural traditions is paramount to the well-being of Native Americans. Still, the authors also found that further research should be conducted to ensure the generalizability of

results to other tribes, institutions, and regions. Finally, only the NACOPE was developed to examine the unique college-going experience of Native students, and the authors concluded that other academic measures such as persistence and GPAs should be analyzed as well.

Family and Tribal Culture-specific Support

For Native American college students, family support and presence have been reported as the most constant source of encouragement to persist (Bass & Harrington, 2014; Benjamin, Chambers, & Reiterman, 1993; Guillory & Wolverton, 2008; HeavyRunner & Marshall, 2003); more precisely, this support came in the form of maintaining cultural continuity. In Waterman's (2012) inquiry on 26 Haudenosaunee (Iroquois) college graduates the researcher found that 19 Native students, who went home often, felt it was vital to maintain those family ties and to "pass on their culture through traditions and language, they feel compelled to go home out of a sense of responsibility to their people" (p. 200). In turn, these students went home because that is where they perceived to receive the most support while in college (Waterman, 2012). Additionally, in tandem with maintaining cultural continuity, Guillory and Wolverton (2008) discovered that keeping tribal connections was also essential for Native American college students. Finally, due to the communal aspects of Native American tribes (Huffman, 2008), as opposed to individualism that is often cultivated within the U.S. culture, tribes saw the success of their citizens as a success for the entire tribal community (Bosse, Duncan, Gapp, & Newland 2011).

On-Campus Support

For Native American college students to succeed academically, Windchief and Joseph (2015) asserted that it is imperative that institutions create support mechanisms (e.g., Native American student services and cultural events) to assist with the socialization process. This Indigenous framework counteracted Astin's (1985) student involvement theory, which placed the

burden of student integration on the student. Moreover, other researchers have concluded that institutional support services (Jackson & Smith, 2001; Shotton, Oosahwee, & Cintrón, 2007) were essential in helping Native American students overcome social barriers and become acclimated within the institution.

Other factors that have contributed to the academic success of Native American college students included peer support. Guillory and Wolverton (2008) discovered that having friendships, with non-Native students contributed to the Native student's sense of belonging. Additionally, Bass and Harrington (2014) found that high levels of support from friends were crucial to their persistence. Outside of peer support, the faculty had the most contact with students.

In an examination of the relationship between Native American faculty and Native American students, researchers concluded that positive interactions with Native American faculty motivated and inspired the students (Bass & Harrington, 2014) while negative interactions with faculty led to adverse academic outcomes (e.g., attrition) (Pewewardy & Frey, 2004). Finally, non-Native staff played a crucial role in creating a welcoming environment for Native students (Brown & Kurpius, 1997) and researchers (Swisher, Hoisch, & Pavel, 1991; Terenzini, Pascarella, & Blimling, 1996) have established that interaction with staff can positively influenced academic achievement and persistence for Native students.

Proposed Theoretical Framework

For my research, I used elements of both Ortíz's theory and Huffman's adaption of transculturation. From Ortíz's theory, I utilized his concept of cultural integrity (Ortíz, 2003) that is crucial to understanding how Native American students preserved elements of their identity and culture while in college through transition. Huffman's adaption of transculturation evolved

to include resistance theory (Erickson, 1987; Pottinger, 1989) in which these transculturated Native students "actively resist and reject the implicit and explicit messages attacking their ethnic identity" (Huffman, 2001, p. 15). From his adaptation, I assessed the initial alienation of transculturation and how this alienation influences the socialization process while in college.

Additionally, I assessed two outcomes of Huffman's (1990) theory. I created one explicit outcome (i.e., cultural reciprocity), which is cultural learning/exchange, and one implicit outcome (i.e., cultural resiliency), which ties into Huffman's evolved theory that incorporated resistance theory. Furthermore, Huffman never delineated the support mechanisms that pushed or assisted this process along. However, he did mention in his earlier research (Huffman, 1990) that transculturated students did reach out for support and, in one instance, one of the transculturated students received support from tribal elders. Additionally, Huffman (2010) later cited supportive faculty and staff are paramount to the success of Native American students but not exactly how these variables assisted with the transculturation process.

Therefore, I have defined cultural integrity as a latent construct of the maintenance of cultural traditions and the preservation of cultural identity and the use of one's culture as an anchor and catalyst to succeed in college. From the Native American higher education literature, there are six main elements of support that Native Americans perceived to be vital to the success of their academic journey: (1) family; (2) tribe; (3) peers; (4) faculty; (5) staff; and (6) the institution itself. I investigated how perceptions of culture-specific support effects cultural integrity and in turn how cultural integrity mediated cultural reciprocity, cultural resiliency, academic achievement, and persistence (see Figure 1.1). More importantly, what factors contribute to overcoming the subjugation of campus hegemony and cultural suicide?
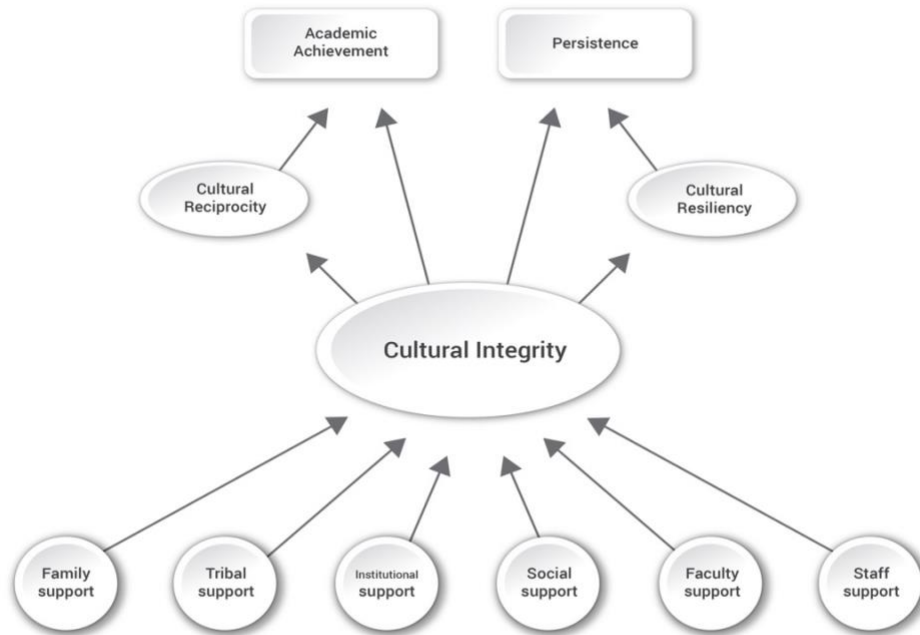
Figure 1.1 Alternative Transculturation Model

Research Methodology

The overarching goal of this dissertation was to examine the relationship between perceptions of culture-specific support (e.g., tribe, family, faculty, staff, peers, higher education institution) and the latent construct of cultural integrity with academic and cultural outcomes through the lens of transculturation. To analyze this relationship, I used data collected during the spring 2014 semester[1] to complete a follow-up validation on the North American Indigenous College Students Inventory (NAICSI), which included items for family support, tribal support, faculty support, staff support, social support, institutional support, cultural reciprocity, and

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[1] The empirical studies that are presented in this dissertation are one conceptual, which is a comparative and critical analysis, and two secondary analyses from the survey data that was collected and validated prior to engaging in the current dissertation project after matriculating to UTA. The Research Methodology section (pages 21-30) describes in detail the data that I collected which also addresses Research Objective 3 of this dissertation.

cultural resiliency. As shown in Appendices A and B, I was part of the research team involved in the NAISCI instrument development and data collection. In this section, I briefly describe my contribution to this project which addresses the first research objective of my dissertation. Two of the chapters included in this dissertation are based on the secondary analysis of the NAISCI data.

To assess my hypothesized transculturation model, I utilized quantitative methodology since it allows for the investigation of relationships among variables (Creswell & Creswell, 2018) and it produces a type of research that I argued is missing from the Native American higher education literature. Structural equation modeling (SEM), which is a multivariate statistical analysis, was employed to test the alternative transculturation model. Also, I used multiple regression to test if the support factors are significant predictors of reciprocity, resiliency, and GPA and *t* tests to assess whether significant differences exists for the support factors based on perceptions of social isolation for students who identified as lesbian, gay, bisexual, two-spirit, transgender, or queer (LGBTTQ).

The following subsections include the development and the subsequent validation of the North American Indigenous College Students Inventory (NAICSI) and the main constructs, the description of the research sites, target population, and research sample, followed by a discussion of the research methods employed in my studies. The data collected was used for two empirical quantitative studies and was also used in the formulation of an alternative transculturation hypothesis in one conceptual study. These three studies constitute Chapters 2, 3, and 4 of this dissertation and are introduced at the end of the Methodology section.

Instrumentation

Items developed for this instrument were based on my personal history, conversations with other Indigenous scholars, classmates, mentors, former advisor, and an exploration of research literature that identified factors related to the academic and cultural success of Native Americans in college. For each support factor, I developed five to eight items while I created two to three items for the cultural outcome factors. I measured these items on a seven-point Likert Scale from strongly disagree to strongly agree.

Next, seven content experts were recruited to complete the content validation process. Content validation refers to the appropriateness of the content of an instrument and whether it measured the targeted construct (Anastasia, 1988). Five of the content validators were professors, one was a doctoral student/academic adviser, and the final validator was an assistant dean/director of a Native American cultural center. All seven are considered experts on issues related to the study of Native American higher education.

Each content validator was given a packet with instructions, which included 53 draft items, and asked to complete the content validation within ten days. Validators were asked to complete the following tasks: (1) assign each item to one of the seven factors; (2) indicate the certainty of their assignment of the item within the factor; (3) indicate how relevant they felt each item was in relation to the factor; and (4) how favorable/unfavorable (positive/negative) each item was with respect to the factor, e.g., how easy (favorable) or hard (unfavorable) is it to agree with the construct.

I retained items if the following criteria were met: (1) the certainty percentage had to meet or exceed 86%, and represented medium-to-high certainty, which indicated that six out of the seven validators agreed with the certainty of that item and (2) the relevancy percentage had to

exceed 86%, and represented medium-to-high relevance, which indicated that six out of the seven validators agreed with the relevancy of that particular item. Also, two of the content validators recommended that items written for the institutional support construct be separated into faculty/staff support and institutional support, to avoid multidimensionality.

Based on the results from the content validation 34 items were retained, and four additional items were written to create a faculty/support factor. Therefore, the instrument included support factors of faculty/staff, social, institutional, tribal, family and two cultural outcomes of reciprocity and resiliency. After the initial exploratory factor analysis (preliminary data that I collected in spring 2013), the analyses suggested that faculty and staff should be two separate factors. Additionally, some items were dropped based on the loading patterns, and some items were rewritten for clarity. The initial NAISCI included 38 items (see Marroquín & McCoach, 2014) which were created to measure these characteristics of the Native American college experience. The final NAISCI included eight factors (see Appendix C) and 47 items (see Appendix D).

Measures

Family support is a six-item subscale relating to the interactions between the participants and their families (e.g., 'my family encouraged my decision to attend college'). Tribal support is a seven-item subscale relating to interactions between the participants and their tribes (e.g., 'my tribal/village community still sees me as one of them'). Social support is a seven-item subscale relating to the interactions between the participants and their peers (e.g., 'my peers show respect for my culture'). Faculty support is a seven-item subscale and measured whether participants perceived to feel supported by their faculty (e.g., 'when I make cultural links to class content, my professor respects my comments'). Staff support is an eight-item subscale assessing the

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communication and experiences between the staff and the students (e.g., 'I feel connected to my academic advisor').

Institutional support is a seven-item subscale related to the perceptions of the participants in how much they feel supported by their institutions (e.g., 'American Indian/Alaska Native culture is well represented on campus'). Cultural resiliency is a three-item subscale designed to measure whether a student utilized their Native identity as an emotional anchor and constructed a cultural threshold (e.g., 'while at college, I have felt pressured to hide certain aspects of my culture'). Finally, cultural reciprocity is as a three-item subscale designed to indicate the level of cultural exchange that has transpired (e.g., 'since starting college, I have shared aspects of my culture with other people'). Students rated all items on a seven-point Likert scale, which ranged from 1 (strongly disagree) to 7 (strongly disagree). All negatively-worded items were reverse-scored.

Research Sites

I targeted Predominately White Institutions that exceeded the 5% or more threshold of American Indian/Alaska Native enrollment reported in the Integrated Postsecondary Education Dataset (IPEDs). The rationale behind this decision was that these institutions would have specific support mechanisms (e.g., Native American center, Native American advisor) for their Native students. I also targeted Native American Serving Institutions (NASIs). These institutions, which have a federally designated NASI status, have at least 10% of their student body that identified as Native American. Additionally, I targeted students who attended Tribal Colleges and Universities (TCUs). Finally, I disseminated the instrument through the American Indian Graduate Center listserv, and I created a Facebook page for the instrument for recruiting participants.

Sample

I created the instrument to capture the Native American college experience; therefore, I used purposive (non-probability) sampling because I was interested in this certain population and this allowed me to answer my research questions. The final sample included 1,066[2] college students who self-identified as Native American or First Nation (Canada), enrolled at two or four-year institutions. Institutions were chosen based on whether they were a Tribal College/University, Native American Serving Institution, or a Predominately White Institution. Due to the data collections being online exact response rates are unknown. Over 60 institutions and 220 Native American tribes, nations, Alaska Native villages, and Canadian First Nation tribes were represented in year two of data collection. Participants self-reported their demographics (e.g., tribal affiliation, institutional name, age, physical upbringing). In Table 1.1, I present the frequency distribution for the age category, grade classification, institution designation, and upbringing.

Table 1.1 Sample Frequency Distributions by Age, Student Classification, Institutional Designation, and Upbringing

Variables	Categories	N	%
Age	18-24	771	72.0
	25-34	234	22.0
	35-44	239	4.0
	45 and older	322	2.0
Undergraduate Year	Freshman	278	26.0
	Sophomore	320	30.0
	Junior	251	23.5
	Senior	134	12.5
	Graduate	83	8.0
Institutional Designation	NASI	159	15.0
	PWI	641	60.0
	TCU	266	25.0
Upbringing	Alaska/Native Village	58	5.0

[2] For information on missing data and data preparation see Appendix E.

	Reservation	321	30.0
	Rural	390	37.0
	Urban	297	28.0
Research Sample		1,066	100.0

The gender demographic consisted of 52% ($n = 552$) female and 48% male ($n = 514$) and

18% ($n = 188$) of the participants identified as gay, lesbian, bisexual, transgender, two-spirit, or

queer (LGBTTQ) and 28% ($n = 301$) of all participants indicated they had children. Additionally,

71% ($n = 756$) of all participants indicated they were attending a four-year institution, and 43%

($n = 461$) of those participants began their undergraduate career at a two-year institution. The

student demographics consisted of 65% ($n = 695$) having indicated they lived off campus, and

35% ($n = 369$) of all participants indicated they did not work while attending school.

Additionally, 93% of all participants indicated enrolling in nine or more hours. Finally, 55% ($n =$

589) indicated they were the first in their immediate family to attend college and 98% ($n = 1045$)

reported receiving financial aid.

Confirmatory Factor Analysis

In instrument design, it is vital to conduct two separate rounds of data collection to

include an exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). The

EFA allows for the testing of how well items are correlated within a hypothesized factor. If items

within a factor do not correlate with one another or if items exhibit multidimensionality meaning

they load on more than one factor that exceeds the loading threshold of .40 or more then the

instrument needs to be revised. In this instance, items that I had written for the faculty/staff

factor diverged on to two separate factors. Initially, I created seven factors, but due to the results

from the EFA, I created separate factors for faculty and staff and wrote additional items for each

factor for a total of eight factors for the CFA data collection. A more comprehensive analysis of

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the psychometric properties for the EFA is presented in the Marroquín and McCoach (2014) study that describes the first round of data collection (spring 2013).

In the subsequent year (spring 2014), I conducted the second round of data collection to test the emerging eight-factor structure. Based on the exploratory factor analysis three items were dropped, and additional items were written for both the faculty and staff support factors, which resulted in a total of 47 items. Due to the instrument having two outcome factors (cultural resiliency, cultural reciprocity), I conducted two separate confirmatory factor analyses.

I conducted the first CFA on the six support factors (tribal, family, faculty, staff, peers, institutional) which utilized StataSE 13 (2013). The CFA exhibited adequate model fit $\chi2 = 2810.61$ $df = 804$, $p <.001$; root mean square error of approximation (RMSEA) = .05 with a 90% confidence interval; comparative fit index (CFI) = .95; Tucker-Lewis fit Index (TFI) = .95; and standardized root mean residual (SRMR) = .03. The second CFA was performed on the two-outcome factor structure and the model fit was also adequate $\chi2 = 57.03$ $df = 4$, $p <.001$; root mean square error of approximation (RMSEA) = .11 with a 90% confidence interval; comparative fit index (CFI) = .99; Tucker-Lewis fit Index (TFI) = .97; and standardized root mean residual (SRMR) = .02.

In determining the goodness of fit, numerous fit indices should be scrutinized to decide whether the hypothesized theoretical structure holds. The first fit index is the chi-square test $\chi2$, which analyzes whether differences exist between the patterns observed in the data and the model specified (Kline, 2011). A non-statistically significant result yields an acceptable model fit; however, analyzing the chi-square test $\chi2$ is problematic in models with over 400 cases. The statistic is being influenced by the size of correlations within the model (Kline, 2011). In this

instance, the model contained 1,066 cases, and both analyses resulted in a statistically significant p-value for the chi-square test; thus, I examined other fit indices.

The CFI is relatively independent of sample size (Chen, 2007) and analyzes model fit by examining the difference between the data and the hypothesized model. The CFI produces values from 0-1 with values of .95 or higher as an indication of a good model fit (Hu & Bentler, 1999). The CFI for the hypothesized model yielded a result of .95 indicating the data fits the hypothesized model. Next, I examined the RMSEA which calculates the size of the standardized root correlations (values range from 0 to 1) (Steiger, 1990). MacCallum, Brown, and Sugaware (1996) proposed .01, .05, and .08 as indicators as excellent, good, and mediocre. Additionally, the RMSEA value utilizes a 90% confidence interval. Ideally, the value for the lower confidence interval will fall closer to zero while the value for the upper confidence interval is lower than .08. For this model, the RMSEA = .05 with the 90% lower bound confidence interval = .001, which indicated a good fit. Finally, the SRMR, which is an absolute measure of fit (Hu & Bentler, 1999), was calculated. A value of zero designates perfect fit and values less than .08 indicate a good fit (Hu & Bentler, 1999). The SMSR yielded a result of .03, which also shows a good fit for the model.

Standardized factor loadings and their corresponding significance levels are displayed in Appendix E and F. By applying Comrey and Lee's (1992) factor loadings cut-offs of 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent), the on-campus support factors (faculty, staff, institution, and social) standardized factor loadings were excellent with only one item yielding less than a .71 loading. Furthermore, the family and tribal support factors generated factor standardize loadings ranging between .65 and .80 while the cultural outcome factors standardized loadings were greater than .80. Finally, all the standardized factor loadings were statistically

significant at the .001 level. In conclusion, the results of the confirmatory factor analysis confirmed that the data fits the model and established the factor structure which emerged from the exploratory factor analysis.

Empirical Studies

This article-based dissertation is based on three empirical studies: one conceptual study, which is a comparative and critical analysis, and two secondary analyses based on NAISCI survey data (see Marroquín & McCoach, 2014). Thus, Chapter 2 offers a comparative and critical analysis on the histories of Afro-Cubans and Native Americans and how transculturation emerged to explain cultural exchange for Afro-Cubans and cultural resiliency for Native Americans. Based on the histories and theory I presented an alternative transculturation framework and theory to explain the academic and cultural success for Native American college students. Then, data obtained from the two-year research focused on instrument development, and survey administration was employed in two empirical studies which represent Chapters 3 and 4 of this dissertation.

Chapter 2:   Marroquín, C. (2018). *Azúcar Negra.* Paper presented at the 2018 annual meeting of the Association for the Study of Higher Education, Tampa, FL.

Chapter 3:   Marroquín, C. (2018). *Statistically Underpowered and Overlooked.* Paper presented at the 2018 annual meeting of the Association for the Study of Higher Education, Tampa, FL.

Chapter 4:   Marroquín, C. (2018). *Moving Beyond Institutional Inclusion.* Paper presented at the 2018 annual meeting of the American Education Research Association, New York, NY.

In Chapter 2, I present a comparative analysis between the histories of Afro-Cubans and Native Americans regarding cultural loss, which was based on assimilation, colonialism, and imperialism. The theory of transculturation was created by Ortíz (2003) to explain the deculturation, acquisition of new cultures, and the reconciliation of culture processes for Afro-Cubans and was later adapted by Huffman (2001, 2008, 2010, & 2011) to explain the cultural journey of Native American college students, who resided on reservations, and who later attended Predominately White Institutions (PWIs). As of 2019, there is no scholarly literature that highlights the similarities between these two demographic groups or why transculturation is applicable to Native American college students. Additionally, there is no scholarship that critiques the transculturation process for Native American college students.

Within this chapter, I contend that far too often, researchers and scholars viewed Native American education through the lens of assimilation under the false idealization that for Natives to succeed academically, assimilation must occur (Van Hamme, 1996). Before the 1980s, non-Natives conducted most of the Native American research applying western methodologies, thus silencing the voice of the Indigenous people, which resulted in the acquiescence of Native American cultural customs in educational success. This chapter represents a conceptual work that stresses the need to move beyond using assimilation, which was born from imperialism and colonialism, and other cultural deficit models as a theoretical lens when assessing Native American educational achievement. By applying Fernando Ortíz's (2003) transculturation model, conceived out of racial tension in Cuba, and Huffman's (2001, 2008, 2010, & 2011) extension of Ortíz's model to better understand the cultural and academic success of Native Americans, my study illuminates the colonialist-imposed histories for both Afro-Cubans and Native Americans.

Additionally, in this Chapter, I will expound on both Ortíz's and Huffman's model to elucidate how vital cultural identity and cultural learning is to Native Americans.

The primary objective of Chapter 3 was to address the lack of quantitative empirical research on what it means to be Native American and thrive in a post-secondary environment through the lens of transculturation. Transculturation is a theory that celebrates the educational and cultural success of Native Americans with a strong cultural identity being the catalyst for this achievement (Huffman, 2010). Structural equation modeling (SEM) was utilized on 1,066 Native American college students to test an alternative transculturation model. The results from the SEM analysis led to the following two themes: family and tribal support were invariant and constant; whereas on-campus support mechanisms were not. On-campus support mechanisms were significant predictors of grade point average (GPA), persistence, cultural reciprocity, and cultural resiliency. The implications of these findings will be useful for institutions of higher learning who are interested in increasing retention and promoting the academic and cultural success of their Native American college students.

Chapter 4 examined perceptions of social isolation, on-campus support mechanisms, family support, and tribal support perceptions for Native American lesbian, gay, bisexual, transgender, two-spirit, and queer (LGBTTQ) college students, and their effects on cultural (i.e., cultural reciprocity and cultural resiliency) and academic (i.e., GPA and persistence) outcomes. This study employed regression and t-tests analyses. Findings revealed that institutional and faculty support were significant predictors of persistence and cultural reciprocity; family, tribal, institutional, and social support were significant predictors of cultural resiliency. Additionally, there were substantial differences between socially non-isolated LGBTTQ and socially isolated LGBTTQ participants concerning their perceptions of support (e.g., tribal, family, staff,

institution, social, and faculty support). Findings indicated family and tribal support were the most constant sources of support with most of the variability of support residing between institutions.

In summary, the three chapters highlight the perceptions of culture-specific support for Native American college students and how this support affects their academic journey at various institutions. Additionally, the data reinforced elements of both Huffman's (2011) and Ortíz's (2003) theory of transculturation but also allowed for an alternative model of transculturation that I will propose in Chapters 2 and 3. The findings in these three studies (Chapters 2, 3 and 4) will then be used in Chapter 5 in support of the research objectives of this dissertation through the proposed conceptual framework.

Limitations of the Research

One imitation within my research is that this research sample only represented 224 tribal affiliations. As of 2018, there were 575 federally recognized tribes, and Native people are not a monolithic group. Tribal culture is unique and highly variant from one tribe to the next so that further research may reveal additional aspects of transculturation not captured by my studies. I would recommend another round of data collection on tribal affiliations that I did not capture within this study. Another limitation is my self-imposed biases. As a Native American, I drew upon my own college-going experiences when I was designing both the instrument and the transculturation model. Although I conducted a rigorous content validation, where seven scholars validated the items, the instrument may not represent most Native Americans' experience in college.

Moreover, when the instrument was administered it only caught a glimpse of the participant's perspective at a certain time point. Maybe the participant was having a stressful

semester, and their perceptions of how they viewed their support did not accurately reflect their entire college experience. Finally, a salient delimitation is the spirituality factor. Previous research has tied spirituality/religion, Native American culture, and cultural integrity. However, due to the multidimensionality, this factor can impose and the scope of my study, I decided not to introduce and investigate the relationship between spirituality and cultural integrity for Native American college students.

Significance of the Research

As Native Americans, in almost any field, our stories, our data, and our voices are relegated to asterisks, footnotes, or are entirely silenced. This research attempts to move our voices beyond the margins and footnotes within research which allows us to tell our own stories. Additionally, for the Indigenous qualitative scholars whose work has made significant contributions to Native American higher education research this work underscores the importance of their research showing us how important culture is to Native students while at college.

From a practical perspective, institutions can utilize the instrument to gauge the campus climate for their Native students. Items such as 'there is no support for American Indian/Alaska Native students at this institution' or 'while at college, I feel like I have had to change who I am to be successful are a direct pulse to the perceptions of institutional support by Native students. Institutions can use this data and/or the instrument to improve their Native American Student Services as to adapt to the needs of their Native students. Additionally, institutions can use the instrument to develop and shape the attitudes of their staff and their faculty to be more culturally responsive and competent to the needs of Native students. The research undertaken in this research demonstrates how these factors can facilitate the cultural success of Native Americans

in college. The findings emphasize the importance of institutions to devote resources towards

creating a campus environment of inclusion for their Native American students as a way of

investing in them. Finally, the research confirms prior qualitative research in what it means to be

Native American and thrive in a post-secondary environment and sends the critical message that

you can succeed not just because you are Native American but due to maintaining one's cultural

integrity.

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CHAPTER 2

Azúcar Negra[3]

oy dulce como el melao'
Alegre como el tambor
Llevo el ritmico tumbao'
Llevo el ritmico tumbao'
Que hace que en el corazon
Y habia una isla rica
Eclava de una sonrisa
Soy de ayer soy carnaval
Pongo corazon y tierra
Mi sangre es de azucar negra, (Díaz, 1993)

The preceding lyrics are from a song titled *Azúcar Negra* sung by the Queen of Salsa and Afro-Cuban artist Celia Cruz, which depicted Ms. Cruz celebrating her Afro-Cuban heritage. The song took on a necessary connotation because during much of the sixteenth to the mid-twentieth century, the celebration of African descent in the Latin diaspora was highly discouraged. Ms. Cruz shouted, with pronounced vigor, *azúcar* which means sugar in Spanish to pay homage to her Cuban roots by connecting her music to the Cuban sugar economy and the Afro-Cuban slaves who worked on the country's sugar plantations (Contreras, 2005). Cuba, known for the exportation of tobacco, sugar, and great salsa singers such as Ms. Celia Cruz, has a long and muddled racial history and was founded on colonialization. The history of Native Americans in the United States shows similarity with the Afro-Cuban case with respect to the cultural treatment of the Indigenous populations and the methods used to assimilate them within the dominant society. The purpose of this chapter is to review research on these two cases through a comparative socio-cultural perspective, and to demonstrate how transculturation theory

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(which I have adopted and enriched throughout my research) can provide a viable conceptual framework in the study of higher education outcomes for Native Americans.

The Afro-Cuban case presents a good starting point for my argumentation. Cuba was one of the first territories that Christopher Columbus had encountered and invaded in his 1492 voyage and was inhabited by the Taíno-Arawaks, who were the Indigenous people of Cuba (Staten, 2015). Consequently, after contact, the Taíno-Arawaks were nearly decimated through European imperialism, and the Taíno-Arawaks who were left were forced into *repartimiento* by the Spanish, which was a draft labor system (Chomsky, Carr, & Smorkaloff, 2003). This form of hard labor proved deadly to the Indigenous people and within four months approximately 70,000 children, whose parents had been forced to work in the gold mines, had perished because of hunger (Chomsky, Carr, & Smorkaloff, 2003). Due to the Indigenous population dying out, in the early 1500s, African slaves were brought to Cuba forced to work in the gold mines (Staten, 2015).

Over 200 years, the production of gold declined, and the Spaniards reliance on sugar cane had increased. By 1774, Cuba had approximately 44,000 slaves (Staten, 2015) and although Cuba had the prime climate and soil to grow and harvest sugar, their island neighbors Hispaniola (the Dominican Republic and Haiti) and Jamaica became the epicenters of sugar production (Moya Pons, 2007). Between 1834 and 1867 sugar production had increased (Copeland, Jolly, & Thompson, 2011) and by 1860, due to new trade routes, maritime developments, and the establishment of sugar mills, Cuba had become the number one supplier of sugar in the world (Hitchman, 1970). As a result, this led to the production of more sugar and a higher reliance on a slave-based plantation economy. These events happened under Spanish colonialization, and it

was not until 1898 that Cuba would gain its independence from Spain with help from the United States.

After gaining independence, sugar, and then tobacco became the metaphoric reality of the economic and social life in the early twentieth century Cuba (Ortíz, 2003). Tobacco was personified by the categorization of color, attractiveness, and social status from *claros* to *manchados* to *puntillas* which was very similar to how Afro-Cubans would be classified based on the color of their skin (Ortíz, 2003). Ortíz (2003) postulated that *tobaccologists*, like certain racial-theory proponents, were self-serving in the stratification of tobacco as a method to "create variables, blends, names, and brands as absurd and artificial as the imaginary races invented by the race theorists of the present" (p. 23). However, miscategorization of races was not a concept confined to Cuba. In the United States, the federal government was introducing and enforcing their brand of racial identity and ethnic classification through the concept of blood quantum (Schmidt, 2011), which was a way to determine the amount of Native American blood a person had and was used to define Native American ancestry.

The ideology behind this federal Indian policy of blood quantum, assimilation, and other policies such as the Dawes Act was that for Native Americans to be successful, they would need to abandon all aspects of tribal culture and assimilate thus known as 'kill the Indian, save the man' (Pevar, 2012; Pratt, 1892). This was accomplished through cruel and immoral practices such as removing Indian children from the "savage" influence of families and tribal communities by forcing them to attend distant boarding schools where tribal children were forced to adopt and assimilate into the mainstream culture. These cultural exchange theories (e.g., assimilation, acculturation, and transculturation) were processes born out of colonialism. Assimilation is the complete upheaval of a person's or group's previous culture (Churchill, 2004; Senier, 2001)

while acculturation is the progression of a cultural hybrid which involved adopting new elements of the dominant culture while losing elements of your own (Gordon, 1964).

Simultaneously, in the early 1900s, both Afro-Cubans and Native Americans, were embroiled in fighting for their place and recognition within society, by resisting the loss of racial and cultural identity. More recently, to better understand the racial conflicts within Cuba, Ortíz (2003) proposed the transculturation theory as a complicated process where minorities can adjust and acclimate within the dominant society. Ortíz (2003) focused on the economic, linguistic, and racial elements of African and European culture within the Cuban population to gauge the processes and the aftermath of colonialism. His theory was adapted by Huffman (2001, 2008, 2010, & 2011) in the early 1980s to explain the success of traditional Native American college students who attended Predominately White Institutions (PWIs) and how they navigate their cultural identities in a new cultural environment.

The purpose of this chapter was to present a comparative analysis and critique of the transculturation theory, which was first used to explain the cultural acquiescence of Afro-Cubans in colonial Cuba then later adapted to explain the cultural journey of Native American college students who came from reservations and who later attended Predominately White Institutions (PWIs). More specifically, the goal is to expound on the history of transculturation for Afro-Cubans and its application to the context of Native American higher education. To do so, I first analyzed two idiosyncratic histories, one which focused on the events leading to the Cuban Nationalist Revolution of 1933 and the other history concentrated on the Forced Assimilation. Both events led to numerous cultural and social implications for Afro-Cubans and Native Americans, respectively. For Afro-Cubans, the Cuban Nationalist Revolution dictated their place within Cuban society and for Native Americans the federal policy of Forced Assimilation was

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the framework building their role within U.S. society. As a result, this policy was also the foundation for how Natives would be educated.

Secondly, I examined the systematic convergence of cultures by evaluating the similarities of the racial discontinuity process, based on colonialism, for Afro-Cubans and Native Americans. Also, I reflected on why transculturation theory is appropriate in assessing the acclimation process for Native American college students. Finally, I extended on Huffman's (2001, 2008, 2010, & 2011) transculturation theoretical framework on Native American cultural identity and collegiate academic success.

To achieve the purpose of this chapter, in the following section, I introduced the concepts of imperialism, colonialism, and then assimilation by comparing the evolution of the Cuban Nationalist Revolution of 1933, which was a whitewashing of Afro-Cuban culture, and its ramifications on cultural hybridity followed by the cultural assimilation of Native Americans. Next, Ortíz's model of transculturation will be presented, followed by Huffman's adaptation of transculturation for Native American college students, and followed by my extrapolation on Ortíz's and Huffman's theory of transculturation to discuss why cultural identity for Native American college students is predicated on external factors.

Geopolitical Context of Assimilation

Imperialism

The practices of imperialism, colonialism, and assimilation are manifested from the same family tree with imperialism as the trunk, colonialism as the branches, and assimilation as the fruits born out of these nefarious practices. The Latin term *imperium* is the origin for both imperialism and empire and translates to power or command. The term *imperialism* has evolved to extrapolate the reasoning behind the expansion and the dominion of certain European

countries (e.g., Great Britain, Spain, France, Belgium, Netherlands, Germany) and the United States to coerce their culture, will, and economic ideals on Indigenous people on Indigenous land, while *empire* has been used as a noun to classify these countries who enforced their will. Since the 15th century, imperialism has shaped the stories and histories of Indigenous people and is in the current cultural architecture of Indigenous people around the world (Smith, 1999). Smith (1999) described European imperialism in four concepts "(1) imperialism as economic expansion; (2) imperialism as the subjugation of 'others'; (3) imperialism as an idea or spirit with many forms of realization; and (4) imperialism as a discursive field of knowledge," (p. 21).

The first concept, imperialism as cultural reform, contextualized the need for developed nations (e.g., Spain, France, England) to keep a stronghold on their wealth by conquering Indigenous lands (e.g., Africa, America, Cuba) and extracting raw materials. Concept two, subjugation of 'others', described the aftermath of concept one with the destruction of the Indigenous people, their land, and their way of life which exercised their dominion over these Indigenous people and resources. In the third concept, Smith (1999) argued that through "the promotion of science, economic expansion, and political practice" Europe, in their narcissistic purpose, could expand the idea of *Europeaness* in other countries through "new wealth, new countries, and new possessions," (p. 22). Finally, the fourth concept examined how researchers and writers viewed and understood the ramifications of imperialism. Specifically, is one writing about imperialism from the perspective of privilege regarding the benefits of imperialism or from a local context or Indigenous knowledge? In the context of Indigenous education, previously, non-Indigenous researchers have been the bearers of Native American educational scholarship and policy; thus, perpetrating a cycle of privilege in where the 'perceived' benefits of

assimilation have placed Native American children in boarding schools and have taken Native Americans from their ancestral lands.

Colonialism

Similar to the fourth concept of imperialism, those who studied or wrote about colonialism had extreme feelings in that "it has either been a dirty business engaged in by evil people or a praiseworthy endeavor undertaken by fine gentlemen for the noble purpose of saving the wretched, the savage, the unfortunate" (Horvath, 1972, p. 45). The use of imperialism has produced many forms of colonialism, but in this chapter, three types will be discussed: (1) settler colonialism; (2) extractive colonialism; and (3) planter colonialism. First, colonialism is highly congruent with the second concept of imperialism as Horvath (1972) defined colonialism as the control of others, their behaviors, and the unequal coalescence of cultures through domination

The purpose of settler colonialism functioned as a vehicle to decimate and replace the Indigenous peoples through the establishment of invasive colonies (e.g., South Africa, Australia, New Zealand, the United States, Canada) that established a new political sovereignty, identity, and culture. Settler colonialism is rooted in *terra nullius*, which is the belief that Indigenous lands are not being used to their full potential, which in turn gave settlers an inherent right to this "unused" land (Veracini, 2015). In the United States one form of settler colonialism, founded on the logic of elimination, was the *Doctrine of Discovery* in which many European scholars and White settlers believed they had a God-given right to take and defend the ill-gotten Native American lands (Castanha, 2015).

For Cuba, there were two forms of colonialism. First, there was extractive colonialism, where the colonizer (i.e., Spain) extracted resources (i.e., gold) from an existing country to send back to the home country to build up wealth. Extractive colonizers either pushed away or

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decimated the local Indigenous population, and in the instance of Cuba, Spain killed most of the

Taíno-Arawaks (Chomsky, Carr, & Smorkaloff, 2003; Staten, 2015). Comparatively, the U.S.

government had authorized over 1,500 attacks, wars, and raids on Native Americans which

destroyed the population, along with diseases, to approximately 238,000 by the late 19th century

(Fixico, 2013). After the extraction of gold dwindled the era of planter colonialism ensued. In

planter colonialism, the colonizer establishes a mass production of a single crop (e.g., coffee,

cotton, sugar). In this form of colonialism and in the Cuban case, the labor demands of growing

and harvesting sugar could not be met through that of the local Indigenous population alone,

because Spain slaughtered most of Taíno-Arawaks, so African slaves were uprooted and

imported to meet the demands of the labor (Staten, 2015). For Cuba, extractive colonialism came

in the form of a decimated Indigenous population, and wealth through gold, slave labor, and

sugar while the U.S. enjoyed the fruits of extractive colonialism through an almost decimated

Indigenous population, slave labor, oil, land, and numerous cash crops.

Two Historical Contexts of Assimilation

Assimilation

Anglo-conformation (euphemistically known as assimilation), which forces members of a

group to denounce their culture and adopt the culture of those who are in power (Churchill,

2004; Senier, 2001), took hold in North America in the early 1600s. Henry IV, the King of

France, asserted it was crucial that Amérindians (i.e., American Indians) assimilate to increase

the French colonial population, economic advantage, and political sway of France (Jaenen,

1966). Furthermore, he proclaimed that assimilation would:

> Lead the natives thereof to the profession of the Christian faith, to civilization of
>
> manners, an ordered life, practice, and intercourse with the French for the gain of their

commerce; and finally, their recognition and submission to the authority and dominion of

the crown of France. (as cited by Jaenen, 1966, p. 265)

Other countries (i.e., Spain, England) enforced their concept of assimilation with different Native

American tribes to increase their colonial populations and economic advantages until the United

States won their independence in 1776. Soon after, and for the next 200 years, the United States

had numerous policies in place with the subordination of Native Americans being the outcome

of every federal policy or treaty with the goal or either full assimilation into society or the

destruction of culturally-traditional Native Americans (Hoxie, 1984).

In Cuba, during the colonial period and through the 20th century, assimilation took

the form not only in the adoption of the dominant culture, but also in the eradication and the

absorption of the Afro-Cubans into the White-European race (Mustelier, 1912). It was highly

desired and encouraged that Afro-Cubans adopt both the physical and cultural

characteristics of the Cuban-European bourgeoisie. In Mustelier's (1912) book *La Extinction

del Negro,* Mustelier theorized that specific Black racial characteristics were incompatible

with the technical and industrial advancement of modern society and as a result, the Black

race would become extinct. Similarly, the U.S. government avowed that Native Americans

would become extinct if European-American ideals were not adopted (Washburn, 1986). In

Cuba, Mustelier's concept was affirmed by numerous political writings in deciding the

position of Afro-Cubans within Cuban society:

It suggested that in physical terms blacks and members of other races were the potential

equals of Caucasians, but their traditions and modes of behavior were influenced by an

earlier "stage" of cultural development. The best means of integrating minorities into

Cuban society, from this perspective, was to suppress African-derived expression and to

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inculcate "superior" Western middle-class norms and values. Judgments of this sort by

intellectuals justified and perpetuated the campaigns of "de-Africanization" in Cuba.

(Moore, 1997, p. 32)

This rationale led to *blanqueamiento* which was a practice to dilute Black blood in

future generations of Afro-Cubans by procreating with Europeans and to promote whiteness

(Guevara, 2005). Although *blanqueamiento* encouraged *mestizaje* (i.e., blending of races and

cultures) the underpinnings of this form of assimilation was to avoid racial conflicts like that

of the Haitian revolution (Robaina, 2013) and to enact and maintain white supremacy

(Guevara, 2005). In a similar vein, the United States, enacted the federal policy of blood

quantum to dilute Native American tribal citizenship, tribal sovereignty, and tribal culture

(Pevar, 2012). Blood quantum was used to distribute a significant portion of tribal land into

individual allotments, which served the dual purpose of reducing Indian land holdings, and at the

same time defining and diminishing 'Indianness' (Schmidt, 2011). Additionally, blood quantum

was used as a way to control and distribute the wealth of Native Americans to government

mandated White guardians (Grann, 2017). For instance, in the early 1900s Osage Native

Americans were required to have one-half Osage blood to inherit headrights, which was the right

to receive money from mineral rights from their reservation lands (Grann, 2017).

The Whitewashing of Afro-Cuban Culture

During the early 20th century, the Neoliberalist policies of the Cuban sugar economy,

dependency upon the United States, foreign-owned enterprises in Cuba, the rise of the Cuban

White middle-class, and the imperialistic nature of the U.S. led to the 1929 Wall Street stock

market crash (Chomsky, Carr, & Smorkaloff, 2003). This economic upheaval further exasperated

structural inequality within the Cuban economy and society (Benjamin, 1975). As a result, a

nationalist revolution emerged in Cuba to neutralize components of this hegemonic system of structural inequality. The Cuban Nationalist Revolution of 1933 served as a vehicle to counteract the imperialist tentacles of the United States; subsequently, breathing new life into Cuban nationalism which had given way to some progressive social legislation (Benjamin, 1975).

Before this revolution, Afro-Cuban workers were not only limited in their employment options, but also Afro-Cuban political representation was adversely disproportionate in the Cuban House of Representatives (Domínguez, 1978). White Cubans filled occupations such as nurses, typesetters, department store sales-people, and jobs in the tobacco industry. Consequently, Afro-Cubans were relegated to unskilled service jobs such as newspapers sales, port workers (Betancourt, 1959; Helg, 1995) and working on the sugar plantations (Chomsky, Carr, & Smorkaloff, 2003). Furthermore, White Cubans created an invisible social hierarchy by creating private clubs to exclude Afro-Cubans from public spaces (Fuente, 2000). To circumvent continued racial discrimination, Afro-Cubans protested, and provisional policies emerged from the 1933 National Revolution. Subsequently, Cuban citizens were to hold 50% of jobs in the industrial, commercial, and service industry. Afro-Cubans and mulattos were able to use this policy to enter previously barred employment sectors (Helg, 1995).

Therefore, the Cuban Nationalist movement was born out of this revolution. The ideology was that Cuba would become a single mulatto culture and society (Arnedo-Gomez, 2006). Prior to this, in an 1891 essay *Nuesta América,* José Martí, asserted that there was no racism in Cuba because there were no races and used this ideology as a call for national unity to counteract U.S. hegemony (Martí, 1891). White Cubans clung to his sentiment as a vehicle to evade dealing with racism within Cuban society. During the early 1920s, White Cuban intellectuals, (e.g., Ramón Guirao and Fernando Ortíz) started to celebrate the integration of Spanish and African cultures,

known as *mestizaje*, which allowed for the cultural acquisition of Whiteness, while minimizing the cultural contributions of Afro-Cubans (Arnedo-Gómez, 2006). Few Afro-Cuban intellectuals ascribed to this ideology that Cuban nationhood was contingent upon racial unity to circumvent American imperialism (Helg, 1995) while other Cuban black intellectuals were more concerned with cohesion within the Afro-Cuban population as opposed to achieving racial harmony between Whites and Blacks (Bronfman, 2004).

The viewpoint of mestizaje was problematic for Afro-Cubans for two reasons 1) it gilded the racial conflicts between White and Afro-Cubans (Kutzinski, 1993) and 2) it allowed for the cultural misappropriation of Afrocubanista culture by whitewashing Afrocubanista cultural contributions to increase racial harmony and by allowing White Cubans to be the voice of the Afrocubanista literary world (Arnedo-Gómez, 2012). Arnedo-Gómez (2012) ascertained that Fernando Ortíz initially viewed the literary contributions of Afro-Cubans as rudimentary while reserving the scholarly work of White Cubans as worthy of national status. Soon after, Ortíz realized that political discourse excluded the voices of Afro-Cubans, Chinese, and other minorities and was a proponent of Cubans defining themselves as a "shared cultural heritage rather than shared ancestry" (Moore, 1997, p. 133).

Although the concept of Cuban nationalism and *mestizaje* gained traction during the mid to late 1930s, Afro-Cubans were still being treated unjustly and inhumanely. Jimenes-Grullón (1936) and Hernández (1937) expressed that for racism to cease, Cubans would need to recognize that all Cubans were mulatto and renounce Europeans standards of racial differences and superiority. Although Fernando Ortíz's idealistic concept of cultural hybridity, later known as transculturation, was the ideal for Cuban society other scholars were critical of his process. Before Ortíz's model, Serra (1907) asserted that a culturally-fused society would require Afro-

Cubans to de-Africanize themselves to assimilate and adopt European values. This process was identical to the American Indian assimilation process where colonizers claimed that for Indians to be full members of "their" society the "savage" had to be killed to save the man (Pratt, 1892). Afro-Cubans would need to assimilate into a European-based model to eliminate undesirable cultural characteristics, thus allowing them to become fully-realized citizens in Cuban society.

Kill the Indian, Save the Man: A Focus on Education

Simultaneously, the U.S. government, like Cuba, was experimenting with their form of cultural warfare/hybridity. For most Native Americans, this era is known as the Forced Assimilation Period (1887-1934) where the U.S. government educated Native Americans through federal policy through forced assimilation practices (Pevar, 2012). Assimilation, as defined by Webster (1913), is "the act or process of assimilating or bringing to a resemblance, likeness, or identity; also, the state of being assimilated; as, the assimilation of one sound to another," (p. 861). For Native Americans, however, the concept of assimilation was far more traumatic than the definition implied and relied heavily on education.

The purpose of the 1887 General Allotment Act (Dawes Act) was to erase tribal sovereignty, Native American identity, and to create reservations. Consequently, approximately 200 boarding schools were in operation with over 14,000 Native Americans being forced by the federal government to matriculate at these schools (Reyhner & Eder, 2004). In 1892, Captain Ricard H. Pratt delivered a speech at George Mason University titled *Americanizing the American Indians: Writings by the Friends of the Indian,* where Pratt conveyed his theory that Indians as a race should cease to exist, (i.e., American Indians needed to be Europeanized). Pratt (1892) expressed that Indian schools had a purpose in rehabilitating the savage language, cultures, and superstitions that Native Americans possessed through any means necessary. In

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turn, school leaders, missionaries, and policy-makers used this reprehensible philosophy as the founding principles within Indian boarding schools around the country.

The Carlisle Indian School served as the first intermediary of incorporating Native American children into mainstream American life through the elimination of Native American culture, customs, and language cloaked under the acquisition of American academic and social skills (Boyer, 1989). Upon arrival, students adopted White Christian names, learned English, converted to Christianity, had their long hair forcibly removed, and Native dress and speaking was prohibited as a form of ethnic cleansing (Boyer, 1989). To reaffirm this form of ethnic cleansing students were mandated to attend school year-round to circumvent "relapsing" into their Native ways (Pipes, Westby, & Ingelbret, 1993).

Blount, Thyer, and Frye (1996) ascertained adults, who attended these boarding schools had difficulties adjusting as adults into "White" society and experienced higher rates of psychological agitation, depression, and suicide. For most Native Americans, attending boarding school was the new traditional way of life that continued into the 1950s where generations of families attended these off-reservation boarding schools. The U.S. government assessed the federal policy of assimilation on Native Americans, in a report titled "The Problem of Indian Administration" which was the most comprehensive report on Indian reservations compiled through a deficit perspective. The report (as described by Pevar, 2012) indicated conditions which included "extreme poverty, devastating epidemics, inadequate food, and inadequate education" (p. 9) that were a result of the government's assimilation policies. Although the education of Native Americans was dismal at best, the U.S. government was successful at initiating cultural genocide through the loss of Native language, land, culture, and identity. These practices molded the educational practices through the 1990s (Native American Language Act,

1990) and assimilation has been the lens to study Native American education for both K-12 and postsecondary levels.

Transculturation and its Emergence in the U.S.

Fernando Ortíz's theory of transculturation originated from his observations of the violent and structural divergences resulting from the cultural intercourse of Chinese and European immigrants and Afro-Cubans in early 20ᵗʰ century Cuba (Ortíz 2003). Prior to cultivating transculturation, Ortíz studied the field of criminology where he declared Afro-Cuban religions such as *santeria* and *abakuá* as unfit and uncivilized for Cuban society. His perspective on these religions was due to its association with the *hampa* an underworld connected with the criminal elements of Afro-Cuban society, which is evident in his first published book, *Los Negros Brujos* (Bronfan, 2004). Ortíz's anthropological interests emerged over the next 10 years where he wrote numerous academic manuscripts on Afro-Cuban topics including religion, slavery, language, and folklore. Following his in-depth studies, Ortíz then found Afro-Cuban culture palatable. As a result, Ortíz became an outspoken advocate against racism in Cuba (Arroyo, 2016).

During the 1930s, the sociological term *acculturation*, a term that described the cultural transition process, gained traction within academic circles, which explained the rise of cultural hybridity ideals (Ortíz, 2003). Ortíz decided against using acculturation in his writings and felt transculturation was better at characterizing the overly complex transmutation of culture (2003). The concept of acculturation implied a cultural deficit, which Ortíz described as deculturation (2003). Accordingly, Ortíz (2003) developed transculturation on the "institutional, legal, ethical, religious, artistic, linguistics, psychological, sexual" (p. 98) aspects of Cuban life allowing for the transmission of cultures.

Ortíz's work on transculturation was never a delineated process of cultural adjustment

and adaption. His work centered on describing the difficult processes of defining *Cubanidad*, a

development of unifying Cuban society to create a national, race-less identity (Schwartz 1977).

During this time, *mestizaje*, the blending of cultures, was being touted as the ultimate symbol of

Cuban nationalism. Arroyo (2016) contended that the pronounced similarities of *mestizaje* and

transculturation existed because Ortíz failed to reconcile the final progression of transculturation.

Therefore, the theory of transculturation was a loosely defined process of cultural adjustment,

which would later be adapted and refined as a resisting, compromising, and adjusting process as

interpreted by Lewin and Huffman (Huffman, 2010).

Without a clear demarcation, transculturation has been used to explain cultural exchange

and resolution in numerous cultures, (e.g., Africa, Canada, and extensively in Latin America)

(Hirabayashi, 2002). Hallowell (1972) introduced the concept of transculturation in American

anthropology as a socialization process through which individuals learn how to function within a

new culture, which was a departure from Ortíz's original premise of resolving cultural

differences through cultural amalgamation. The theory was adapted by American sociologists

during the 1970s and 1980s; then, American sociologist Terry Huffman (2001) utilized the

theory to explain the academic and cultural success of Native American college students who

were from reservations and to account for the unique higher educational experiences of

American Indian college students.

Huffman's Adaption of Transculturation to Native American College Students

Educational/cultural exploration theories have emerged, and strands have been adapted

and applied to all minorities, (e.g., cultural deficit theory, cultural oppositional theory, cultural

difference theory, assimilation, enculturation, acculturation); nevertheless, these theories

assumed that a cultural deficit must occur for academic success to transpire. A turning point in the Native education scholarship is offered by Huffman (2008) who postulated that Native Americans can be successful because of their Native identity and are able to use their Native identity to engage in a college mainstream setting. Additionally, maintaining this identity can lead to higher academic outcomes and cultural exchange without incurring a cultural loss (Huffman, 2001, 2008, 2010, & 2011). While Ortíz's (2003) transculturation theory focused on the power dynamics and cultural transition between a dominant and a subordinate group, Huffman (Huffman, 2001, 2008, 2010, & 2011) used his theory and applied it to Native American college students who are in the racial and cultural minority at a Predominately White Institution (PWI).

Assimilation has been the theoretical lens of choice for most academics and researchers that investigated the academic journey of Native Americans (Van Hamme, 1996). By using this lens, a cultural deficit will always be assumed. To counter this autocratic deficit model, Huffman (2001, 2008, 2010, & 2011) adapted and applied Ortíz's model of transculturation to Native American college students, who came from reservations. To do so, he borrowed certain elements of transculturation, such as the concept of cultural exchange under conditions of unequal power relationships and cultural conflict, and the conceptualization of cultural reconciliation. By conducting in-depth interviews, Huffman (2001) identified the reactions to cultural conflict for culturally-traditional Native American college students. As a result, cultural conflicts were a consequence of the adjustment process at the onset of the academic career for these culturally-traditional students. Huffman (2001) asserted that for transculturation to transpire, culturally-traditional students (e.g., students who come from Native American reservations) effectively

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navigated the cultural dilemmas they encounter while in college. This process materialized in four stages.

Stage one dealt with the initial alienation that culturally-traditional students perceived upon arriving on campus. During this stage, culturally-traditional students described feelings of depression and isolation, which is analogous to Blount et al's (1996) attestation of the boarding school experience and cultural genocide process for Native Americans adults, who reported difficulty adjusting to "White" society and reported levels of depression. Culturally-traditional college students, who successfully reconciled these encounters, used these experiences as a social psychological mechanism to navigate within their college environment (Huffman, 2001).

Stage two is the self-discovery stage of the transculturation process. During this stage, culturally-traditional students comprehended they did not need to assimilate to be academically successful and interacted with Natives and non-Natives alike (Huffman, 2001). Furthermore, students who reached the transculturation threshold reported career aspirations and expressed the desire to give back to their Native community (2001). Stage three, realignment, occurs when transculturated students made the necessary adjustments to persist in their academic and cultural journey. To do so, students learned how to navigate within academia by applying the obligatory norms when required (2001). This allowed for the emergence of cultural exchange of keeping traditional ideals while learning how to navigate within mainstream society. Finally, in stage four, participation, transculturated students overcame the initial alienation and learned the routine of college. During this final stage, transculturated students understood they could interact with Native and non-Natives while holding true to their cultural identity at a non-Native institution (Huffman, 2001).

Present Study: Critical Perspectives and a Step Forward

Extension on Huffman's Theory of Transculturation

Huffman's (2001, 2008, 2010, & 2011) work on the academic and cultural success of culturally-traditional Native American college students was innovative and pioneering. However, his process is unreflective of the external support factors that assisted with the transculturation process. Additionally, his research exclusively focused on students who are from reservations and does not account for the experiences of students who are from urban or rural areas and those who are from Alaska Native villages. Furthermore, his theory assumed that transculturation occurs solely at PWIs. Finally, his theory failed to consider that these students, who came from reservations, attended Bureau of Indian Education boarding schools, which are located on reservations. During the 1980s and 1990s, these boarding schools did not have culturally-relevant curriculum and the teachers and administrators were primarily non-Native. Therefore, these students had been introduced to the U.S. hegemonic educational system prior to attending a PWI while living on a reservation.

Huffman's theory (2001, 2008, 2010, & 2011) correctly explained that reaching the pivotal transculturation threshold stage is a significant juncture in a culturally-traditional student's journey. However, I assert this progression of cultural consciousness does not exist in a space devoid of support from one's family, tribe, and on-campus support mechanisms, which Huffman did not specifically delineate. Based upon my previous research, (Marroquín & McCoach, 2014; Marroquín, 2017) which analyzed the responses of 1,567 self-identified American Indian, Alaska Native, and Canadian First Nation college students measuring the latent construct of cultural integrity (i.e., maintenance of cultural tradition and preservation of cultural identity) through the lens of transculturation, I discovered that cultural competency and

initiatives from the institution are paramount in the transculturation process. The more support

students perceived to receive from their institution, the less likely they perceived to be socially

isolated, were more likely to persist, had higher grade point averages, participated in cultural

reciprocity, and were more likely to be more culturally resilient (Marroquín & McCoach, 2014;

Marroquín, 2017). Additionally, perceived support from the faculty, staff, and friends were all

instrumental in upholding cultural integrity, thus positively effecting academic achievement,

social isolation, persistence, cultural reciprocity, and cultural resiliency.

In view of my empirical findings, I am recommending additional suppositions towards

the Native American transculturation theory. Huffman's (2001, 2008, 2010, & 2011) premise of

attaining a transculturation threshold is grounded and substantiated but assumes this threshold is

unequivocal once achieved. Also, his theory is predicated on transculturation occurring in a non-

Native educational environment. Based on my research observations, the perceived levels of

support progressed and regressed from freshman to seniors, indicating that the transculturation

threshold was not as succinct as Huffman theorized (Marroquín, 2017).

Thus, I am re-conceptualizing Huffman's theory of transculturation. Transculturation

theory is *a continuous socialization process in which Indigenous students utilize their cultural*

identity to persist, engage culturally, and succeed within any academic environment.

Additionally, students predicate this process on the perceived support from one's family, tribe,

faculty, staff, friends, and the institution itself. In turn, this perceived support leads to higher

cultural reciprocity and cultural resiliency. These cultural outcomes perform as a mediator for

academic achievement and persistence. While positive academic outcomes are the expected

proof of successful socialization within the dominant society, Huffman's theory and additional

suppositions show the role of culture in mediating success. The proposed extension of Huffman's

(2001, 2008, 2010, & 2011) theory applies to all Native American college students, not just those who come from reservations. My research suggested that transculturation is not bounded by geographic upbringing nor institutional designation. Figure 2.1 below highlights an alternative view of the transculturation model.
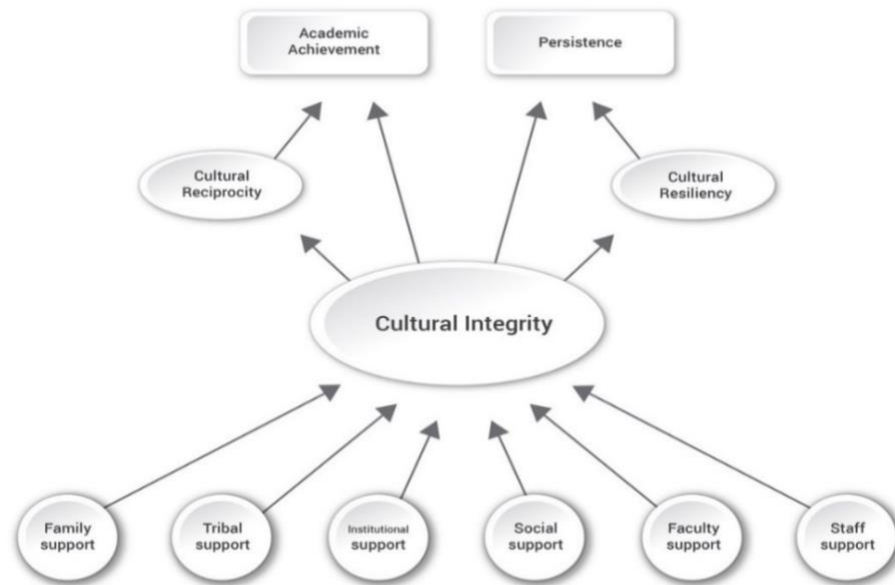
Figure 2.1 Alternative Transculturation Model

What differentiates my model compared to both Ortíz's (2003) and Huffman's (2001, 2008, 2010, & 2011) perspectives is that transculturation is viewed as a continuous socialization process to where cultural integrity is affirmed and reaffirmed. Both Ortíz's (2003) and Huffman (2001, 2008, 2010, & 2011) specified transculturation as a threshold where Ortiz's asserted that rarely anyone reached the final stage of transculturation and Huffman defined transculturation as an irreversible dichotomous process to where one could stay transculturated if they reached this threshold.

Additionally, I expounded transculturation to include Native American students who resided in rural and urban areas since most Native Americans do not live on reservations. I also, expounded transculturation to include Native American students who attend Tribal Colleges and Universities (TCUs) and Native American Serving Institutions (NASIs), for (1) Native culture is not monolithic so a Native student attending a TCU that is not affiliated with their tribe, may experience a culture shock when attending, and (2) NASIs, although 10% of their student population is comprised of Native students, may not have the proper culture-support initiatives in place to help their Native students succeed; therefore, it is important to include Native students who also attend these institutions.

Discussion

Imperialism and colonialism have been the underlying philosophy of both Cuba and America since the Spanish invasion. For Cuba, colonialism served as a trajectory of racial and structural inequality denying Afro-Cubans their civil liberties and silencing their cultural contributions. For the United States, imperialism served as a vehicle to implement cultural warfare and the decimation of the Indigenous peoples. For Afro-Cubans, Ortíz (2003) proposed transculturation, which was never a clear or socially equitable process, to better understand the acquisition of a dominant culture during a tumultuous time.

During this time, Afro-Cubans' civil liberties were severely limited, and their cultural offerings were thought as rudimentary by the mainstream. Comparatively, for Native Americans, this cultural process was assimilation, where until 1924, Native Americans were not U.S. citizens; therefore, their rights did not exist, and their cultural practices were prohibited (Pevar, 2012). This comparative analysis examined the cultural discontinuity process for both Afro-Cubans and Native Americans and the process of becoming fully-realized cultural citizens of

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their respective countries. Subsequently, Huffman (2001, 2008, 2010, & 2011) adapted the transculturation model to understand how culturally-traditional Native Americans navigated in non-Indigenous spaces. This comparative analysis highlighted the similarities of the cultural and socialization experiences of Afro-Cubans and Native Americans by extending on Ortíz's and Huffman's theoretical perspective of transculturation.

Ortíz's (2003) principal tenet of transculturation focused on the transmutation of culture through a social exchange in Cuba while Huffman (2010) postulated that culturally traditional Native students must endure a socialization process to thrive in a mainstream educational setting. In my previous research (Marroquín & McCoach, 2014; Marroquín, 2017) where I assessed the latent construct of cultural integrity and its relation to transculturation, I ascertain, correspondingly with Huffman, that having a strong cultural identity is essential to thriving in college. However, in contrast to Huffman (2001, 2008, 2010, & 2011) I assert that maintaining a strong cultural identity is contingent on the support that individuals perceive to receive from their institution, friends, faculty, staff, family, and tribe. Therefore, higher perceptions of support increased higher levels of cultural integrity an individual has which in turn leads to higher academic and cultural outcomes.

Conclusion

This critical analysis and theory extension employed transculturation as its theoretical lens both due to Huffman's adaptation of transculturation specifically for Native Americans and because assimilation has been the mainstream educational theory to study both K-12 and postsecondary Native American education. Hence, most of the policy that focused on the education of American Indians is rooted in colonialism and imperialism, which is predicated in the assimilation of the subordinated cultures. Consequently, an overwhelming amount of the

literature emphasized the failures of Native Americans in education explained through these culture deficit frameworks, which are based in assimilation.

Instead of using this deficit perspective, this critical analysis considered Native American academic and cultural achievement through a lens that celebrated and honored Native identities and proposed an alternative transculturation model that emphasizes the support factors maintaining one's cultural integrity and thus positively affecting academic success Doing so, allows us to reframe Indigenous epistemologies in a reverent fashion by reversing the acquiescence of cultural loss. As we move forward and attempt to counteract the ramifications of over 200 years of cultural genocide, we must be fully aware of the previous theoretical lens, which is often grounded in hegemony and imperialism, when evaluating the cultural experiences of the oppressed, and replace it through a lens that celebrates one's cultural identity.

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Chapter 3

Statistically Underpowered and Overlooked[4]

Since the inception of the first formalized western institution in the United States and by

1932, a total of 385 Native American students had attended a post-secondary institution which

resulted in 52 Native Americans completing their degree (Brayboy et al., 2012). During the

1950s, the number of Native American college students enrolled increased to an estimated 2,000,

which later resulted in a cumulative total of 66 Native American college students that earned

bachelor's degrees by 1961 (Wright, 1991). As of 2015, the needle has steadily moved to a

completion rate of 24% for Native American college students, which is the second lowest,

behind African-Americans, for any racial group (McFarland et al., 2017).

What is known about the current state of Native American postsecondary education is:

(1) Native Americans comprised approximately .8% (178,968) of the entire undergraduate 2016-

2017 college-going population (U.S. Dept. of Education, 2019a); (2) Native Americans

encompassed approximately .90% (8,977) of all associate's degree (U.S. Dept. of Education,

2019b) and .48% (9,218) of all bachelor's degree holders in 2016-2017 (U.S. Dept. of Education,

2019c); (3) the number of bachelor degrees has increased for all racial/ethnic groups except for

Native Americans (U.S. Dept. of Education, 2019b; U.S. Dept. of Education, 2019c); (4) there is

a paucity of quantitative literature examining the college experiences of Native American

students (Lopez, 2018) (5) instruments and surveys designed to measure the college going

experience (e.g., retention, engagement, achievement) have excluded Native Americans, or are

relegated to the "other" category (BCSSE, 2010; CSEQ, 2007; Tierney, 1992); and (6) a

tumultuous relationship, founded in distrust, exists between educators at the elementary,

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[4] A version of this chapter was submitted as a paper and presented at the 2018 Association for Higher Education
Conference.

secondary, and postsecondary levels, and Native American parents, students, and tribes due to previous cultural assimilation efforts (Churchill, 2004; Faircloth & Tippeconnic, 2010; Forbes, 2000; Laderman, 2002).

Although, there is some evidence of low participation and degree completion, little is known about the college-going experiences of Native Americans as to understand the actual cause of the problem. Additionally, due to the sample sizes of Native American college students being small, this subset of students is viewed as "statistically insignificant" (Faircloth & Tippeconnic, 2010). Consequently, in being viewed as "statistically insignificant," Native Americans are either excluded in statistical analyses or are statistically underpowered leaving researchers without the ability to parse out differences between Native American students and other demographic groups (Tierney, 1992). Also, quantitative instruments and surveys, which are designed to generalize results for the entire college-going population, do not necessarily capture the unique cultural aspect of Native American students' education and if or how this cultural component can impede or facilitate academic achievement.

To have a greater understanding of the effects of cultural identity and to assess the college-going experiences of Native Americans, within this study, I analyzed the responses of students who participated in the Native American College Student Study (Marroquín & McCoach, 2014; Marroquín, 2017), which was an instrument validation study designed from a culturally-relevant perspective. In the following section, I explained why a culturally relevant framework is important when assessing the college-going experience of Native Americans and discussed several theoretical frameworks. Next, I outlined the support factors of Native American college students. Finally, I discussed the measure, methods, sample, results, discussion, and implications for practice and future research.

Literature Review

Among some educational researchers, the consensus is a student's cultural background has impacted their motivation to succeed in an academic environment (Cummins 1986; Demmert 2001; Deyhle 1995; Deyhle & Swisher 1997; LaFromboise, 1993; LaFromboise, Hoyt, Oliver, & Whitbeck 2006; Smith-Maddox, 1998). Nonetheless, Museus, Zhang, and Kim (2016) ascertained traditional frameworks of college success, most notably Tinto's theory of academic and social integration (1975), overlooked this critical cultural component for students from racially diverse backgrounds. Additionally, instruments such as the Student Adaptation to College Questionnaire (SACQ) (Baker & Siryk,1989), National Survey of Student Engagement (NSSE) (2009), and Student Engagement Questionnaire (SEQ) (McNaught, Leung & Kember, 2006) did not accurately reflect cultural validity for students of color or students from culturally diverse backgrounds. Notably, within these instruments, statistics for Native Americans are missing, or the sample size is too small to generate the results, or they are relegated to the "other" category.

Furthermore, Tinto's (1975) theory of student integration, Astin's (1985) theory of student involvement, and the instruments based on these theories, did little to challenge the cultural hegemony that is found in many institutions across the U.S.; therefore, culturally relevant frameworks should be explored when examining student success especially for diverse populations (Hurtado & Carter, 1997; Museus et al., 2016; Tierney 1992). For that reason, data that captures this cultural aspect of the college-going experience and cultural congruity for Native American college students should be examined.

Transculturation

        Transculturation is a unique and distinct theory, which evolved to explain educational and cultural experiences specifically for Native Americans. The first element that differentiated transculturation from other theories is that it explained and celebrated the educational and cultural successes of Native American students, instead of their failures (Huffman, 2010). Huffman (2010) credited the theory of transculturation on two crucial scholarly works: (1) ethnic identity formation and (2) symbolic interactionism. Lewin (as cited by Huffman, 2010) first presented his theory on identity formation stressing that understanding how individuals evolve into a sense of their uniqueness is fundamental to understanding self-development. Lewin's theory later evolved to explicate how America's minority members form their ethnic identity. He argued (as cited in Huffman, 2010) that people needed to celebrate their ethnic identity, which in turn increased personal self-identity and group belonging. Thus, allowing for productive membership in a majority society.

        Symbolic interactionism is the second element of transculturation, which sought to understand the identity of self-development. According to this theory, social interaction forms the individual, who then internalizes the perceptions of others. This theory has powerful implications for members of an ethnic minority group. Lyman and Douglas (as cited in Huffman, 2010) proposed that ethnic identity is a powerful medium and as a result, can shape the nature of social relations between people.

        Cuban writer and ethnographer Fernando Ortíz introduced the concept of transculturation in 1942 due to the racial conflicts in Cuban society and to explain the transmutation of European, Cuban Indigenous, and African cultures (Ortíz, 2003). Ortíz proposed a five-stage process (i.e., enslavement, compromise, adjustment, self-assertion, and integration) to resolve racial

differences and disputes (Ortíz, 1944). American social-scientists later altered Ortíz's model (Huffman, 2010). Other educational/cultural exploration theories emerged, and strands were adapted and applied to all minorities (e.g., cultural deficit theory, cultural oppositional theory, cultural difference theory, assimilation, enculturation, acculturation). However, what differentiated transculturation from these other theories with respect to the current study is that Huffman (2010) adapted the theory distinctly for Native Americans. Huffman (2010) proposed that Native Americans, who came from reservations and attended predominately white institutions (PWIs), could be successful in college when their cultural identity is used as anchor.

Huffman's adaption of transculturation is a four-stage process of: (1) initial alienation, (2) self-discovery, (3) realignment, and (4) participation. Stage one assessed the feelings of not belonging, which is the most pivotal stage in transculturation (Huffman, 2010). During this stage, traditional Native students felt isolated in their new environment and were at a higher risk of attrition. If these students used their Native identity as a source of strength, they were more likely to persist and moved on to the second stage of self-discovery. However, if these students, which Huffman (2010) classified as estranged, were unable to reach the self-discovery stage they had a higher propensity for dropping out. In the self-discovery stage, these students reached a transculturation threshold where they could relate to their new surroundings and realized they did not lose any of their Indigenous identity (Huffman, 2010). Realignment occurred when Native students made the "necessary (and practical) adjustments in their personal, social, and academic worlds" (Huffman, 2010, p. 197.) in relation to operating in different cultural milieus. In the participation stage, these students understood they can be Indigenous in a non-Indigenous environment and were more likely to be academically and culturally successful (2010).

Role of Faculty, Staff, and Institution

Academic achievement, retention, and persistence for Native American college students, have all been linked to attachment of culture, institutional commitment, and cultural sustainability from the institution (Huffman, 2011; Huffman, Sill, & Brokenleg, 1986; Lundberg, 2012; Reyhner & Dodd, 1995; Rindone, 1988). Unfortunately, not all institutions have the proper resources in place to ensure the success of their Native students. Therefore, maintaining cultural traditions has been either a catalyst or an impediment for Native American college students, which is true if Native Americans attended PWIs (Huffman, 1991).

Researchers have found (Blackwell, 1981; Yosso, Smith, Ceja & Solórzano, 2009) a negative campus climate has been a detriment to the retention and sense of belonging for underrepresented students. Prior researchers (Benjamine, Chambers & Reiterman, 1993; Pewewardy & Frey, 2004; Sedlacek, 1999; Spaights, Dixon, & Nickolai, 1985; Tierney, 1992) have indicated that institutional support mechanisms, which helped students with transitioning and dealing with campus hostility, are paramount in determining if Native students are retained. In 2000, a study on ethno-violence, conducted at Northern Arizona University, revealed that 40% of Native American respondents reported some form of victimization because of their race, which in turn led to a heightened perception of a chilly campus climate (Perry, 2002).

Other institutional factors that can have a bearing on student success are relationships with faculty and staff. Past studies have shown that quality interactions with faculty and staff have increased the likelihood of retention, persistence, and ultimately graduation (Belgarde, 1992; Falk and Aitken, 1984; Hunt & Harrington, 2010; Lundberg, 2007). Hornett (1989) posited that institutional faculty "are the persons who can most directly affect the motivation and desire of Indian students to remain in school" (p.12). Since Native Americans accounted for .4%

of all faculty on college campuses (as cited in Shotton, Lowe & Waterman, 2013), it is the responsibility of the professor, who is more likely to be non-Native, to engage in a pedagogy that is culturally responsive to the students they are serving. Additionally, low expectations and stereotyping from faculty have been linked to decreased retention and persistence from Native American students (Pewewardy & Frey, 2004). Guillory and Wolverton's (2008) qualitative inquiry of 30 Native American college students, from Indian reservation communities, found students perceived faculty were invested in their academic success when faculty showed interest in the student's culture. Finally, non-Native staff also played a fundamental role in developing a supportive environment for Native students.

Role of Peers

A 2009 qualitative inquiry study (Marroquín, 2009) analyzed whether cultural ties were re-affirmed or broken when Native students entered college and the results concluded that social structures/relationships were beneficial to the academic success of Native American students. Also, these were not just any social structures/relationships; participants actively sought relationships and bonds that were based on sharing a similar culture. The creation of these friendships also became a community for other, non-Native students (Marroquín, 2009). Similarly, Guillory and Wolverton (2008) found that White students had a role in the perseverance of Native students during their final years of college by extending invitations to study together. As a result, Native students felt a sense of belonging on campus. Other studies (Falk & Aitkin, 1984; Fann, 2004; Guillory, 2009) have established that a lack of peer mentors and a lack of support from friends can be a determinant of academic achievement and persistence for Native American students. Finally, Park and Denson (2013) discovered that American Indian college students were "more likely to participate in curricular/co-curricular diversity" activities

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(p. 740). Also, the researchers concluded that American Indian college students, along with Latino/as, African Americans, and "other" race students, were more likely to interact with other racial groups compared to White students (Park & Denson, 2013). The above studies highlighted the importance of social and peer interactions for Native American college students. However, what seems to be at the fundamental core of the persistence and success of Native students are family and tribal community.

Role of Family and Tribe

A five-year study (Dodd, Garcia, Meccage, & Nelson, 1995) which analyzed factors that affected Native American college retention found the primary source of support for Native students came from family, which is consistent with qualitative studies (Garrod & Larimore, 1997; HeavyRunner & DeCelles, 2002) that have cited family as a substantial influence on student persistence. These findings confirmed Hall's (1991) theory of service learning in Native American communities, where he cited family as the most crucial component of Native American culture. Other studies confirmed Hall's sentiment such as Jackson and Smith's (2001) research which found the most significant theme was "family connection." Lundberg (2007) established that student engagement was linked to success and retention in college; however, this was predicated on pre-college variables such as "maintenance of Native American cultural traditions, reliance on spiritual resources and support from family" (p. 406). Jackson, Smith, and Hill (2003) concluded similar results that support extended from immediate family to aunts and uncles.

For many Native Americans, their tribe is an extension of their family and a source of reassurance. Guillory and Wolverton (2008) discovered that due to the outpouring of emotional, financial, and spiritual support they received from their tribe students felt a sense of duty and

honor to succeed and give back to their tribe. Bosse, Duncan, Gapp, and Newland (2011) substantiated Guillory's and Wolverton's (2008) findings that suggested maintaining tribal connections, while in college, allowed students to develop a sense of duty and serve as a mentor for future generations. Additionally, tribes saw the successes of the students as a success for all within the tribal community (Bosse et al., 2011).

The Present Study

The purpose of this study was to gain insight into the college experience of Native American students and to propose an alternative transculturation model to quantitatively identify where from Native students derived their support. Additionally, to assess whether the North American Indigenous College Student Inventory (NAICSI) exhibited predictive validity in predicting college G.P.A and persistence. Huffman (2010) asserted that having a strong Native identity is paramount in persisting both academically and culturally; additionally, other scholars have asserted that maintaining cultural integrity is predicated on home, tribal, and on-campus support mechanisms (Dodd, et al., 1995; Guillory & Wolverton 2008; Hunt, & Harrington, 2010; Lundberg, 2007).

> Research Question 1. Does perceived support indirectly effect GPA and persistence?
>
> Research Question 2: Does cultural reciprocity and cultural resiliency mediate GPA and persistence?
>
> H1: The relationship between the support factors can be moderated by cultural reciprocity and cultural resiliency in which GPA and persistence are higher with higher perceptions of support.

Therefore, I examined whether support factors (e.g., family support, tribal support, social support, faculty support, institutional support, and staff support) predict cultural outcomes (e.g.,

cultural resiliency and cultural reciprocity) which in turn would predict academic outcomes (e.g., G.P.A. and persistence). To test this hypothesis, I utilized structural equation modeling and assessed the direct and indirect effects of the support factors on cultural resiliency, cultural reciprocity, G.P.A. and persistence.

Methodology

Research Sample

The instrument was administered online to college students, who self-identified as Native American or First Nation (Canada), enrolled at two or four-year institutions. Institutions were chosen based on whether they were a Tribal College/University, Native American Serving Institution, or a Predominately White Institution. Participants self-reported their demographics (e.g., tribal affiliation, institutional name, age, physical upbringing). The sample included 1,095 participants; however, I excluded 1.84% ($n = 20$) of the participants due to missing data on key demographic variables (e.g., university, grade classification, upbringing). Additionally, I excluded 1.27% ($n = 14$) due to the data showing univariate or multivariate outliers; and also, 1.38% ($n = 15$) of the participants who had missing data computed on four to seven items. The final research sample of $N = 1,066$ was used in the study. Due to the instrument being administered online exact response rates are unknown. For a more detailed overview of the sample demographics see Chapter 1.

North American Indigenous College Students Inventory

The North American Indigenous College Students Inventory (Marroquín, 2018) is a 47-item instrument designed to measure the latent construct of cultural integrity (i.e., maintenance of cultural traditions and identity) of Native American college students by assessing the perceived support by the student's family, tribe, peers, faculty, staff, the institution itself, and

cultural reciprocity and cultural resiliency. Additionally, the NAICSI also captures social isolation, institutional, and student characteristics. See Appendix E and Appendix F for the NAICSI support definitions and survey items.

The instrument items were measured on a seven-point Likert scale (e.g. strongly-disagree to strongly-agree) and mean scores were created for each scale to assess perceptions of support, cultural reciprocity, and cultural resiliency. Persistence (e.g. 'what is the likelihood that you will drop out of your current institution?') was measured on a four-point ordinal scale, which ranged from 1 (not at all likely) to 4 (very likely) and was reverse scored (Marroquín, 2018). Mean scores were created for the support scales and for the cultural reciprocity and cultural resiliency scales.

Analysis

Structural equation modeling (SEM) was utilized due to the complex relationship that I had hypothesized. SEM allowed for the simultaneous examination of one or more independent, dependent, and moderating variables. In this instance, I investigated eight latent variables (i.e., family, tribal, faculty, staff, social, and institutional support) with two of these variables (i.e., cultural reciprocity and cultural resiliency) mediating two observed variables (i.e., G.P.A. and persistence). The SEM analysis was performed in STATA 15 (StataCorp, 2017).

<div align="center">

Results

</div>

To determine if the NAICSI contained predictive validity and if the hypothesized model from Chapter 2 where support would predict cultural reciprocity and cultural resiliency, which in turn would predict academic achievement and persistence, I used SEM. The results from the SEM indicate, aside from the chi-square $\chi2$, the hypothesized model exhibited acceptable fit $\chi2 = 3709.97$ $df = 1096$, $p < .001$; RMSEA $= .047$ with a 90% confidence interval; CFI of .95; SRMR

= .03. Additionally, the 90% lower bound confidence interval = .001 indicated that the fit is close

(a pictorial representation of the structural model predicting students' persistence and academic

achievement is presented below in Figure 3.1).
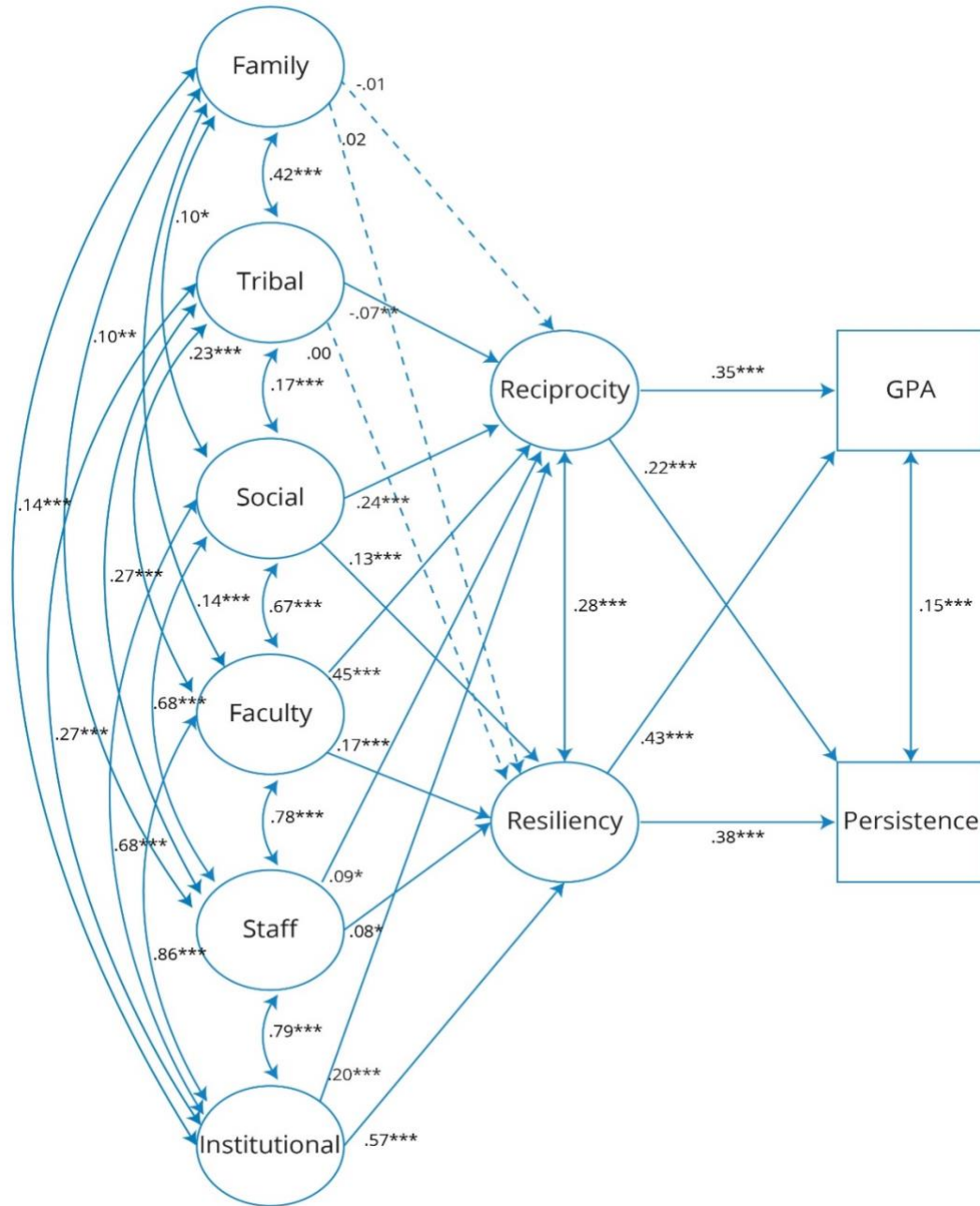
Figure 3.1 Structural Equation Model Predicting Achievement and Persistence

Due to the hypothesized model displaying adequate fit, no post-hoc modifications were conducted. See Appendix E and Appendix F for the NAICSI support definitions and survey items. Within this representation, solid lines indicated a statistically significant relationship whereas a dotted line indicates a non-statistically significant path.

Indirect Effects

To answer RQ1 (Does perceived support indirectly effect GPA and persistence), the results of the indirect effects of the model examining the support factors effects on and academic achievement and persistence are presented in Table H1 and H2 in Appendix H, and in Figure 3.1. On-campus support (i.e., faculty, staff, social, and institution) were all statistically significant moderators of both academic achievement and persistence. Social (.13), staff (.07), institution (.32), and faculty (.23) were significant predictors of achievement mediated through cultural resiliency and cultural reciprocity. Institutional support had the largest indirect effect on achievement, which specifies that grade point average is expected to increase by .32 for every standard deviation unit increase on the institutional support variable via its prior effect on cultural reciprocity and cultural resiliency.

The standardized indirect effects of family support (.00) and tribal support (-.02) on persistence through cultural resiliency and cultural reciprocity were non-significant predictors whereas social (.10), staff (.05), institution (.26), and faculty (.16) were significant predictors of persistence mediated through cultural resiliency and cultural reciprocity. Institutional support had the largest indirect effect on persistence, which suggests that persistence is expected to increase by .26 for every standard deviation unit increase on the institutional support variable via its prior effect on cultural reciprocity and cultural resiliency.

Direct Effects

To answer RQ2 (Does cultural reciprocity and cultural resiliency mediate GPA and persistence) the standardized direct effect of cultural resiliency on academic achievement was .43, which means that for every standard deviation (*SD*) increase in resiliency, the participant's G.P.A. increased by .43 *SD* units. The standardized direct effect of cultural reciprocity on academic achievement was .35, which means that for every standard deviation unit increase in resiliency, the participant's G.P.A. increased by .35 *SD* units. In other words, higher perceived levels of cultural reciprocity and cultural resiliency led to higher G.P.A.s.

The standardized direct effect of cultural resiliency on persistence was .38, which means that for every standard deviation increase in resiliency, the participant's persistence increased by .38 *SD* units. The standardized direct effect of cultural reciprocity on persistence was .22, which means that for every standard deviation increase in resiliency, the participant's persistence increased by .22 *SD* units. In other words, higher perceived levels of cultural reciprocity and cultural resiliency lead to higher rates of persistence.

Additionally, when analyzing how the support factors directly affect cultural resiliency and cultural reciprocity family support (β = .02) and tribal support (β =.00) were non-significant predictors of cultural resiliency whereas social support (β =.13), staff support (β =.08), institutional support (β =.57), and faculty support (β =.17) were significant predictors of cultural resiliency. Family support (β = -.01) was not predictive of cultural reciprocity while tribal support (β = -.07), social support (β =.24), staff support (β =.09), institutional support (β =.20), and faculty support (β =.45) were significant predictors. Faculty support had the largest effect on cultural resiliency while institutional support had the largest effect on cultural resiliency.

Discussion

The first objective of this study was to identify significant support factors for Native American college students. The findings from the structural equation model highlight on-campus support (social, staff, faculty, and the institution) had the greatest effect on cultural and academic outcomes. Aside from the tribal support factor being a significant predictor of cultural reciprocity, tribal support and family support had little predictive validity in assessing cultural resiliency, cultural reciprocity, persistence, and academic achievement. The lack of predictive validity is primarily due to the participants having high perceptions of tribal and family support, which is consistent with other studies (Guillory & Wolverton, 2008; Jackson, Smith, and Hill, 2003; Hall, 1991) and resulted in both family and tribal support being positively skewed. This means the support students perceived to receive from their tribe and family was constant among most students; most of the variance was within the on-campus support factors.

Although family and tribe had little predictive validity in assessing cultural reciprocity, cultural resiliency, academic achievement, and persistence, prior research has shown that family (Bass and Harrington, 2014; Guillory 2009; Waterman, 2007) and tribal (Drywater-Whitekiller, 2010; Makomenaw, 2014) support were monumental in their intent to persist while at college. Although these support factors are not statistically significant, I am asserting that family and tribal support are the most reliable and constant sources of support for Native students. As shown in Appendix D the means for items contained within the family support factor ranged from 5.71 to 5.95 and the means for tribal support items ranged from 5.61 to 5.68. On the contrary, the on-campus support items ranged from 4.15 to 5.13 but with much higher variance.

The results from this study demonstrated that faculty support, staff support, social support, and institutional support had a significantly, positive direct effect on cultural reciprocity

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and cultural resiliency. Institutional support had the largest positive effect on cultural resiliency and faculty had the largest positive effect on cultural reciprocity. In turn, these cultural outcomes had a significant positive effect on both academic achievement and persistence. The more support students perceived in receiving to preserve and maintain their cultural traditions and cultural identity the more likely they were to participate in a cultural exchange with peers, faculty, and staff and the more likely they were to be more culturally resilient. These higher levels of cultural exchange and cultural resiliency led to higher G.P.A. and students were more likely to persist.

Moreover, prior research (Lundburg, 2014) has demonstrated that institutional, faculty, student, and staff support factors can have an impact on the academic success of Native American college students. The results from this study corroborated Lundberg's findings of these on-campus (social, staff, faculty, and institutional) support factors having a positive indirect effect on academic achievement and persistence with institutional support having the largest positive effect on both achievement and persistence. Finally, the findings from this study confirmed Museus's et al. (2016) claim that culturally relevant frameworks are vital to the academic success especially, for diverse populations.

Implications for Policy and Practice

The first policy implication would be to increase federal funding for Trio programs at institutions that serve a high population of Native students. The Student Support Services (SSS), also known as Trio, provides services to first-generation college students, low-income students, and disabled students who are attending college. Students who are eligible for these services receive personalized academic and career counseling, mentoring, and tutoring with the overarching goal of increasing retention and graduation (U.S. Department of Education, 2017). A

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slight majority of the participants in this study indicated they were the first in their family to attend college while 98% had reported receiving financial aid or scholarships. Trio programs, at institutions with a high population of Native American students, could provide culturally specific student services to their Native American students. Based on this study's demographics of first-generation status, financial aid, and the utilization of campus resources, it is evident that it would be beneficial if Congress allocated additional funding to the Bureau of Indian Education to either provide culturally-competent Trio programs or to supplement currently successful Trio programs at institutions with high Native populations.

The second implication for policy and practice is to create or strengthen current Native American Student Services and localized tribal partnerships. There were three PWIs where participants had higher levels of perceptions of support from their institution, Arizona State University, Northeastern State University, and the University of Oklahoma. At Arizona State University, services and initiatives included the Native American Achievement Program (NAAP), which is a student success and retention programs for students who are from local tribes. The NAAP initiative is an intergovernmental agreement with the Navajo Nation, White Mountain Apache Tribe, and the San Carlos Apache Tribe which provides academic and emotional support to members of these tribes (ASU, 2018). Another initiative at Arizona State University is the "Turning Points" magazine which represents and celebrates Native culture through the lens of Indigenous students (Falero, 2018).

Northeastern State University houses the Center for Tribal Studies which provides culturally relevant campus activities, tutoring and academic advising, and mentoring for their Native students (NSU, 2018). At the University of Oklahoma programs and initiatives include Sigma Nu Alpha Gamma (Society of Native American Gentlemen), Gamma Delta Pi (Native

American sorority), and the American Indian Student Life department, which provides services such as the American Indian New Student Orientation, American Indian Spring Celebration, American Indian Banquet & Awards Celebration, American Indian Academic Achievement Celebration, and also provides academic support and personal advising for Native students (OU, 2018). Based on prior research (Guillory & Wolverton 2008; Jackson & Smith 2001) and the results presented in this study, culturally-competent student services are vital in the persistence and the academic and cultural success of Native students, so student services similar to the three universities described above should be generalized.

The third and final implication for policy and practice is to hire more Native faculty. According to the National Center for Education Statistics (2017), 0.4% of all doctorates were awarded to Native Americans in 2014-2015. In this study, 62.8% ($n = 668$) of the participants indicated having an Indigenous professor they could talk to. These interactions led to strong positive correlations with students' cultural resiliency, cultural reciprocity, persistence, and college G.P.A. Unfortunately, to hire more Native faculty, more Natives must earn their doctorate degree.

Some examples are encouraging, schools such as Arizona State University and the University of New Mexico have recently launched doctoral cohorts for Native students to address critical areas that have been identified by local tribes, educators and community members. Arizona State University's (2015) first Pueblo Indian doctoral cohort included 10 doctoral Native students while the University of New Mexico's Native American Leadership in Education (NALE) had seven doctoral Native students in cohort one and eight doctoral Native students in cohort two (UNM, 2018). To increase Native American faculty representation in the academe, there must be a concerted effort from schools to both increase the number of Native

American recipients of doctoral degrees and to improve the hiring of qualified Native Americans in academia; the results from this study underscore the need for this initiative.

Conclusion

Prior research (Hynd & Garcia, 1979) demonstrated that cultural attachment and cultural identity are pivotal to the academic success of Native American college students. However, most of this research has been qualitative therefore limiting the transferability of findings to only one or two tribes at one or two institutions. The findings of this study can be generalized to a larger Native college student population and institutions can no longer overlook the relationship between culture and academic success.

The first strength this study exhibits is that the results are based on an instrument that has established cultural validity for the college-going experiences of 1,066 Native American students therefore allowing the results to be generalizable. Although there have been other studies assessing cultural attachment for Native Americans, this study is the first of its kind to quantitatively measure cultural attachment in relation to cultural and academic outcomes. From these results, we can establish a baseline to determine the degree to which an institution has facilitated cultural integrity for Native students, which in turn leads to higher levels of academic achievement. Additionally, this study was consistent with prior research linking on-campus support mechanisms and cultural identity (Drywater-Whitekiller 2010; Waterman 2007).

Lawrence-Lightfoot, Davis, and Brown (1997) stated that the "Researcher who asks first 'What is good here?' is likely to absorb a very different reality than one who is on a mission to discover sources of failure," (pg. 13). I discovered that cultural identity was re-affirmed by family, tribal, institutional, faculty, staff, and peers, meaning these support mechanisms were instrumental in the facilitation of the transculturation process. Participants had informal social-

structures (faculty, peers, staff, Native American club) in place while obtaining their primary support from family and tribe. Also, I found that Native students could succeed because they are Native, not despite being Native, which supported Huffman's (2010, 2011) assertion on the relationship between transculturation and academic success of Native students.

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Chapter 4

Moving Beyond Institutional Inclusion[5]

Sociological and higher education research has demonstrated the need for the increasing attention of scholars to better understand a college population that is becoming more diverse by gender, race, sexuality, class, and gradually more non-traditional with respect to balance between work, school and life obligations. At the intersections of social markers, the occurrence of social inequalities may affect the experiences of college students along multiple dimensions and identities. Unfortunately, the research conducted to analyze the intersectionality of these social markers has not kept in pace with the growing diversity of the student population.

For instance, within the past nine years (2010-2019), there has been a steady uptick in the production of studies that assessed the experiences of Native American college students and how various forms of support (e.g., institutional, faculty, staff, family, tribe) fostered inclusivity and a sense of belonging (Ademan, Taylor, & Nelson, 2013; Drywater-Whitekiller, 2010; Huffman, 2011; Makomenaw, 2014; Strayhorn, Bie, Dorime-Williams, & Williams, 2016; Tachine, Cabrera, & Yellowbird, 2017; Waterman, 2012). Additionally, for sexual and gender identity, the paradigm on lesbian, gay, bisexual, transgender, queer or plus[6] (LGBTQ+) scholarship has shifted from outdated sexual identity formation models (Cass, 1979) and literature that is predicated on Euro-American standards as well as the ideals of the well-educated middle class (Eliason, 1996) to giving a voice to LGBTQ+ students of color (Duran, & Nicolazzo, 2017;

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[5] A version of this chapter was submitted and presented at the 2018 American Education Research Association Conference.

[6] I am applying the term LGBTQ+ to scholarship that excludes Native Americans and am applying LGBTTQ as a designation specially for Native Americans in scholarship and for the participants within this study.

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Eaton & Rio, 2017; Lewis & Ericksen, 2016; Means & Jaeger, 2016; Nauri, 2014; Strayhorn &

Tillman-Kelly, 2013).

In 2016-2017, Native American college students comprised approximately .8% (178,968)

of the entire undergraduate college-going population (U.S. Department of Education, 2019).

Subsequently, the Native American lesbian, gay, bisexual, transgender, two-spirt and queer

(LGBTTQ) sub-population is so small that their specific experiences are excluded from studies

that concentrated on LGBTQ+ college students (Duran, 2018). Therefore, the LGBTTQ

population is absent in scholarship that focuses on Native American college students which

leaves Native American LGBTTQ college students rendered invisible by both LGBTQ+ scholars

and Native American higher education scholars. As of 2019, there are no data or reports that

have highlighted the experiences of Native American LGBTTQ college students.

In 2007, Gilden (2007) linked the numerous obstacles and social and structural inequity

which members of the Native American LGBTTQ community endure to colonization and

assimilation. The use of government-subsidized religious schooling, indoctrination into Euro-

American concepts of gender, and suppressive actions by the U.S. government have created a

legacy of historical trauma and intergenerational trauma for Native Americans who identify as

LGBTTQ (Gilden, 2007). This legacy of trauma has created a cycle of poverty where 19.1% of

Native American same-sex male couples and 13.7% of same-sex female couples lived in poverty

compared to 2.7% of white same-sex male couples and 4.3% of white same-sex female couples

(NCAI, 2016). In a study assessing the experiences of LGBTQ+ individuals, Native American

participants reported an 11.3% of unemployment in 2013 (Center for American Progress, 2015)

with Native American transgender and gender non-conforming participants reporting an

unemployment rate of 18% (NCAI, 2016).

For Native Americans who identify as LGBTTQ, these issues are only the onset of problems when they begin their college career and are compounded with problems that are unique to Native American college students. These include a bachelor's degree completion rate of 24% (McFarland et al., 2017) and a first-year retention rate of approximately 71% (Consortium for Student Retention Data Exchange, 2015). Finally, Native Americans face barriers such as racial discrimination, campus hostility (Pewewardy & Frey, 2004), cultural mismatch, and isolation (Huffman, 2011).

Therefore, the purpose of this study was to gain insight on the college experiences of Native Americans who identify as LGBTTQ. Specifically, I analyzed culture and educational outcomes for Native American LGBTTQ college students through the lens of transculturation (i.e., social isolation, cultural reciprocity, cultural resiliency) and how these perceived experiences aligned with Cass's (1979) sexual identity formation model, which reported that high levels of social isolation and alienation from friends and family are pivotal in the first stage of sexual identity formation, and with Adams and Phillip's (2009) study on Native American LGBTTQs where participants reported varying levels of tribal support and support from family and friends.

I examined the following research questions: (1) what perceptions of support effect academic achievement, persistence, cultural reciprocity, and cultural resiliency for Native Americans students who identify as LGBTTQ? Also, (2) are there significant differences between socially non-isolated LGBTTQ and socially isolated LGBTTQ participants regarding perceptions of support?

In the proceeding section, I introduce intersectionality followed by sexual identity formation for Native Americans and why the LGBTQ+ acronym is not inclusive for Native

Americans. Next, I extrapolated on prior research on campus climate for LBGTQ+ students and LGBTQ+ students of color. Finally, I introduced the theoretical framework, followed by the measure, methods, sample, results, discussion, and implications for practice and future research.

Literature Review

Intersectionality allows for the study of sexual, socioeconomic status, gender, and racial identities and how these identities play a role within social interactions (Crenshaw, 1991). Intersectionality delves into the experiences of people who are members of two or more historically marginalized and oppressed categories and in turn how these experiences shape and effect their self-perceptions. For this study, I analyzed the experiences of those who identified as Native American and LGBTTQ. The literature review will introduce sexual identity formation and the experiences of both LGBTQ+ college students and LGBTTQ college students of color, in an attempt to find research relevant to the intersection of race and sexuality for college students.

Sexual Identity Formation for Native American LGBTTQs

For people of color, prior LGBTQ+ research on identity formation has been unsuccessful in addressing the intersectionality of race and sexuality. Cass (1979), Coleman (1982), Plummer (1975), and Troiden (1979) have all created models that measured the identity formation of gay and lesbian individuals. Cass's (1979) Homosexual Identity Development Model is one of the most widely used theories of identity formation and contains six stages of identity development: (a) identity confusion, (b) identity comparison, (c) identity tolerance, (d) identity acceptance, (e) identity pride, and (f) identity synthesis. Although Cass's model has been the primary model for gay and lesbian identity formation, theorists have claimed (Eliason 1996; Horowitz & Newcomb 2002; Rust 1993) Cass's model, along with other identity formation models, does little to

account for the intersectionality of culture, race, gender, and class differences. Adams and Phillips (2009) argued there are stark differences in the identity formation process for Native Americans who identify as LGBTTQ. The researchers (Adams & Phillips, 2009) studied the sexual identity formation processes of six Native Americans who identified as LGBTTQ in an empirical qualitative study, and discovered that half of the participants were always aware of their sexual identity status and were comfortable with their status, which opposed the "identity confusion" stage of the Cass Model (1979). Accounts of perceived isolation from their friends, family, and tribe were absent in some of the stories told, which is one of the pivotal moments of identity formation in the Cass Model.

For Native Americans, sexual identity formation is a unique process. To understand the history and the intricacies of both two-spirit and queer theory, Smith (2010) stressed the importance of counteracting the heteronormative examination of Indigenous scholarship. To do so, Indigenous scholars must push the boundaries of traditional frameworks of queer theory and Indigenous scholarship by unpacking the effects of imperialism and colonialism. Undertaking this research has allowed for the reframing of what it means to be two-spirit, gay, lesbian, bisexual, queer, or being anomalous in both Indian Country and the non-Native world. Redefining the term two-spirit allows an Indigenous person to be a multi-faceted, marginalized identity (Smith, 2010).

Davis (2014) purported that being two-spirit is a multi-faceted, marginalized identity where identifying as two-spirit can exist in the same space as gender and sexuality. In other words, being two-spirit, gay, and being transgender may be mutually exclusive or the macro-identities can intertwine, or an Indigenous person may refer to themselves as being two-spirit without acknowledging additional macro-sexual or binary gender labels. Also, Davis (2014),

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along with Justice (2010), ascertain that being two-spirit and 'anomalous' is highly dependent to the person's tribal history, affiliation, and customs, which underscores how culturally-variant being two-spirit can be.

Davis (2014) concluded that those who identified as two-spirit and queer did not necessarily embody both female and male attributes. I assert, therefore, that the LGBTQ+ acronym cannot accurately reflect the multi-faceted, marginalized identities of Native Americans. I am contending, however, that being two-spirit is a culturally, gender, and sexual variant term and it applies to those who do not necessarily want to be constrained by a socially-defined, sexual, or gender construct. In this study, I applied the denotation of Native Americans to all those who identified with either one of the 573 federally-recognized tribes or state-recognized tribes. The LGBTTQ acronym incorporated the term two-spirit and removed the "plus" designation. Thus, the term two-spirit deviated from the hegemonic view of sexual and gender identity and gives a voice to the Indigenous peoples who denounce heteronormative labels (Davis, 2014).

Campus Climate for LGBTQ+ Students

Kosciw, Palmer, and Kull (2015) analyzed data on 7,814 lesbian, gay, bisexual, transgender high school students, and the researchers concluded there was a relationship between outness to staff and peers and victimization (i.e., verbal harassment, physical harassment, physical assault) where higher levels of outness led to higher levels of victimization. Participants, however, with higher levels of outness had perceived positive views of self-esteem and lower instances of depression. As a result, many LGBTQ+ individuals consider delaying their "coming-out" process until college (Evans & Broido, 1999). However, coming out in college can present a new set of challenges.

In a study assessing LGBTQ+ campus climate, Yost and Gilmore (2011) found incidents of LGBTQ+ college students experiencing a denial of campus rights and victimization based on their sexual identity. Conversely, due to being perceived as LGBTQ+, 30% of the participants reported being exposed to anti-LGBTQ+ graffiti; approximately 50% of the respondents reported experiencing verbal harassment while on campus, and 10% reported encountering physical threats or were attacked (Yost & Gilmore, 2011). Rankin, Blumenfeld, Weber, and Frazer (2010) concluded that approximately 25% of students who identified as lesbian, bisexual, gay or queer and 33% of transgender students experienced violence or harassment on campus due to being perceived as LBGTQ+. Additionally, people of color perceived gay and lesbian spaces did not address or reflect their needs as people of color who identify as LGBTQ+ (Rankin et al., 2010). Furthermore, LGBTQ+ people of color reported higher rates of concealing their sexual identity or gender compared to their white counterparts to avoid harassment (Rankin, 2003).

Consequently, LGBTQ+ students of color are in a vulnerable situation upon arriving on campus, which can be made worse if institutions fail to understand or recognize the unique and complex challenges that LGBTQ+ students of color endure (Duran, 2018). Therefore, it is essential to know where from these students derive their support and in which areas institutions are underserving these students. If institutions can identify these sources of support, administrators can then better and more intentionally assist with the creation of campus programming and retention that could lead to the increased persistence and sense of belonging for these students. Although researchers have found that creating friendships and bonds with fellow LGBTQ+ students of color is beneficial (Hill-Silcott, 2015; Vaccaro & Mena, 2011), finding fellow students with similar identities was challenging (Strayhorn, 2013). As a result, these students sought support from family (Gresham, 2009) or from students whose sexual

(Strayhorn, 2013; Strayhorn, Blakewood, & DeVita, 2010) or cultural identity (Strayhorn & Mullins, 2012) were different from their own.

Next, students of color who identified as LGBTQ+ are forced to navigate singular identity spaces that are focused on either race or sexuality, and these spaces often fail to recognize and address the intersectionality of multi-faceted marginalized identities (Harris, 2003). Furthermore, institutions that do provide an LGBTQ+ student facility take a single-axis approach by establishing their services on middle-class, White standards (Mitchell & Means, 2014). Finally, Vaccaro and Mena (2011) established evidence that social support through LGBTQ+ student organizations and organizations that did not have a focus on culture or sexual identity (Carter, 2013) were beneficial to LGBTQ+ students of color sense of belonging.

Theoretical Framework

The theoretical framework that is guiding this study is rooted in the theory of transculturation, which contextualizes experiences for Native Americans in a post-secondary education environment. The theory is based on notions such as (1) utilizing one's ethnic identity as an emotional anchor; (2) constructing a cultural threshold; (3) engaging in two cultural settings; (4) cultural learning; and (5) breaking out of social isolation (Huffman, 2011). However, I am going to apply my theory of transculturation that was laid out in Chapter 1 which stated that transculturation is *a continuous socialization process in which Indigenous students utilize their cultural identity to persist, engage culturally, and succeed within any academic environment. Additionally, students predicate this process on the perceived support from one's family, tribe, faculty, staff, friends, and the institution itself. In turn, this perceived support leads to higher cultural reciprocity and cultural resiliency. These cultural outcomes perform as a mediator for academic achievement and persistence.*

Therefore, cultural integrity is defined as a latent construct of the maintenance and preservation of cultural traditions and the use of one's culture as an anchor and catalyst to succeed in college. Cultural integrity of any marginalized group is predicated and upheld by the institution's cultural awareness, competency, sensitivity, and responsiveness. It is measured by the perceived support from a student's family, tribe, institution, faculty, staff, and peers, while on campus. In turn, this perceived support that shapes one's cultural integrity effects on academic achievement, cultural reciprocity (engaging in two cultural settings and cultural learning), and cultural resiliency (utilizing one's ethnic identity as an emotional anchor and constructing a cultural threshold).

The Present Study

The purpose of this study was to heighten conceptual knowledge of the perceived college experiences of Native American LGBTTQ students. More importantly to assess where these students derived their support and to examine whether LGBTTQ and Native cultural identity were congruent with one another using Huffman's theory of Transculturation (2011). Additionally, the study tested tenets of Huffman's framework with Cass's Model (1979) of sexual identity formation, where Cass purported that isolation from friends and family is pivotal to the realization of one's sexual identity, while Adams and Phillip's (2009) study on Native American LGBTTQs showed that half of the respondents reported acceptance/inclusion in one's tribe. Huffman (2011) hypothesized that significant amounts of support could have a bearing on social isolation and academic and cultural outcomes; however, his findings were only applicable to non-LGBTTQ students, so the current study will attempt to expand his findings to Native American LGBTTQ students.

Therefore, I employed regression analyses to determine which support factors were significant predictors of academic achievement, cultural reciprocity, and cultural resiliency to assess the relationship between the support variables and the cultural and academic outcomes. Finally, one of the essential tenets to Cass's model (1979) was isolation from friends and family; however, Adams and Phillip's (2009) indicated that some of the participants revealed that alienation from their friends and family was absent from their lives. Accordingly, I wanted to determine whether significant differences existed for the perceived levels of support between Native American LGBTTQ participants who indicated they were socially isolated versus those who were not. Below, in Table 4.1, I presented the different theories and some of the themes that were either addressed, not addressed, or were fundamental in their respective processes.

Table 4.1 Theories and Themes

	Cass (1979)	Adam & Phillips (2009)	Huffman (2011)
Themes	Sexual Identity Formation	Native American Sexual Identity Formation	Transculturation Socialization Process
College Students	Did not address	Did not address	Addressed
Native Americans	Did not address	Addressed	Addressed
LGBTTQ	Addressed	Addressed	Did not address
Social Isolation	Fundamental	Was not fundamental	Fundamental
Family Support	Lack of Support	Had support	Did not address
Peer Support	Lack of Support	Had support	Did not address
Tribal Support	Did not address	Had support	Fundamental
Cultural Outcomes	Did not address	Addressed	Fundamental
Academic Outcomes	Did not address	Did not address	Fundamental

Method

Participants

The sample included 188 self-identified as Native Americans and LGBTTQ in 40 higher education institutions in over 19 states, and consisted of over 80 Native American, Alaska Native, and Canadian First Nation tribes. Participants self-reported their demographics (e.g., tribal affiliation, institutional name, age, physical upbringing) and institutional data (i.e., predominately white institution, degree-granting type) and tribal affiliation data (i.e.., state of tribal headquarters) that were combined to gain a better understanding of the participant's college perspectives. The sample included 66.5% male, with 75.2% of all males ($n = 94$) belonging in the 18-24 age demographic, and 33.5% female, with 69.8% of all females ($n = 44$) residing in the 18-24 age demographic. The institutional demographic makeup consisted of 64.4% (Predominantly White Institution), 25.5% (Tribal College or University), and 10.1% (Native American Serving Institution). Additionally, 67.6% ($n = 127$) of all participants indicated they were attending a four-year institution, and 64.4% ($n = 121$) indicated they lived off campus. Finally, the participant's physical home-environment consisted of 31.9% (rural), 31.9% (reservation), 29.3% (urban), and 6.9% (Alaska Native village).

Measures

I extracted data for the research sample from the Native American College Student Study (Marroquín, 2018), which was a two-year instrument design and validation study that measured the psychometric properties of the North American Indigenous College Study Inventory (NAICSI). The NAISCI measures the latent construct of cultural integrity, which is defined as the maintenance of cultural traditions and the preservation of cultural identity; the use of one's culture as an anchor and catalyst to succeed in college is captured by the tribal, family,

institution, faculty, staff, and social support factors through the lens of transculturation. The NAISCI is a 47-item survey, which also captures aspects of social isolation, college retention and persistence, and academic characteristics. I previously reported Cronbach's alphas (α) and the reliability properties of the research sample to assess the internal consistency of the key factors used within the study (presented in the next section). To view items (item means and standard deviations) see Appendix A. To view a more comprehensive review of the NAICSI psychometric properties see Marroquín and McCoach (2014).

Instrument Definitions

The family support subscale (α = .89) assesses the interactions between the participants and their families and the support the participant perceived to receive from his or her family. This factor includes six items.

The tribal support subscale (α = .95) assesses the perceived support and expectations from students' tribal communities/villages and, whether the participants still perceive that their community continues to see them as one of their own after they started college. This factor includes seven items.

The faculty support scale (α = .96) assesses the communication and experiences between the faculty and the students at the institution; more so, whether the participants perceived that their professors hold them to high expectations and whether they perceived professors showing of respect for their culture. This factor includes seven items.

The staff support scale (α = .95) assesses the communication and experiences between the staff and the students at the institution; more so, whether the participants perceived that their advisors hold them to high expectations and whether the participants perceived a showing of

respect for their culture from the advisors and the institutional staff. This factor includes eight items.

The social support subscale (α = .94) assesses the interactions between the participants and their peers, participation in student groups on campus, and whether they view campus friends as an informal family. This factor includes six items.

The institutional support subscale (α = .92) assesses the perceptions of how much participants felt supported by their institutions. Institutional support will be measured through campus initiatives, cultural continuity, and the sense of belonging that Native students felt once they arrived on campus. This factor includes eight items.

The cultural reciprocity subscale (α = .95) assesses whether participants perceived they learned about other cultures while on campus, but also by how much they have shared their own culture with others. This factor includes two items.

The cultural resiliency subscale (α = .92) assesses the perceptions of overcoming adversity and maintaining a strong sense of one's native culture. This factor includes three items.

Items are measured on a seven-point Likert scale, which ranged from 1 (strongly disagree) to 7 (strongly agree) and I created mean scores for each factor. Additionally, self-reported grade point averages (M = 3.04, SD = .62) and an item measuring persistence were collected. I measured persistence ('what is the likelihood that you will drop out of your current institution?') on a four-point ordinal scale which ranged from 1 (not at all likely) to 4 (very likely) and the item was reverse scored.

Finally, I categorized the participants into social isolation groups based on two questions (i.e., 'When I first started college, I felt socially isolated on campus' and 'I still feel socially isolated on campus') these items were assessed on a seven-point Likert scale which ranged from

1 (strongly agree) to 7 (strongly disagree) and were reversed scored. Participants were dummy coded into three groups (socially non-isolated, no-change, and socially-isolated) based on how they answered the two social isolation questions. Respondents who answered, 'strongly agree,' 'agree,' 'or slightly agree' on 'when I first started college, I felt socially isolated on campus' and no longer perceived to be socially isolated by responding 'slightly disagree,' 'disagree,' or 'strongly disagree' on 'I still feel socially isolated on campus' were coded as 'socially non-isolated.' Respondents who indicated that they still feel socially isolated were coded as 'socially-isolated,' and all others were coded as 'no-change.' For this study, I only analyzed differences between the socially isolated ($n = 76$) and socially non-isolated groups ($n = 76$).

Results

The regression results are presented in Tables 4.2, 4.3, and 4.4 which examined how Native American LGBTTQ students' perceptions of support predicted academic achievement (Table 4.2), persistence (Table 4.3), cultural reciprocity and cultural resiliency (Table 4.4).

Academic Achievement and Persistence

I used a multiple regression analysis and assessed whether the support factors were significant predictors of academic achievement measured by GPA (Table 4.2). The linear combination of the six support factors explained 55% of the variance ($R^2 = .55$, $F(6, 187) = 37.12$, $p < .001$). Staff ($\beta = .25$, $p < .001$), institution ($\beta = .34$, $p < .001$), social ($\beta = .17$, $p < .001$), and the faculty ($\beta = .15$, $p < .01$) support factors were significant predictors of academic achievement.

Table 4.2 Multiple Regression Analysis for Variables Predicting GPA (N = 188)

Variable	B	SE B	β
Constant	1.38	0.23	
Family	-0.07	0.04	-0.10
Tribe	-0.05	0.04	-0.07
Staff	0.12	0.03	0.25***
Institution	0.15	0.03	0.34***
Social	0.06	0.02	0.17**
Faculty	0.15	0.03	0.34***
R^2		.55	
F		37.12**	

*$p < .05$. **$p < .01$. ***$p < .001$.

Additionally, I performed an ordinal logistic regression to model the relationship between the six support factors and persistence (e.g., 'What is the likelihood that you will drop out of your current institution?') which was measured on a four-point scale (e.g., 'not at all likely,' 'not very likely,' 'somewhat likely,' 'very likely'). The traditional .05 criterion of statistical significance was employed for all tests (see Table 4.3). The deviance goodness-of-fit test indicated that the model was a good fit to the observed data and the pseudo R-square measure (Nagelkerke) determined that the predictors explained approximately 34% of the variance for persistence ($\chi2$ (477, $N = 188$) = 67.69, Nagelkerke $R^2 = .34$, $p < .001$). The institution (B = .67, $p < .001$) and faculty (B = .28, $p < .05$) independent variables were statistically significant. For every one unit increase in perceived institutional support, there is a .67 increase in the log-odds

of being in a higher level of persistence. Similarly, for every one unit increase in perceived

faculty support, a .28 increase in the log-odds of being in a of being in a higher level of

persistence given that all of the other variables in the model are held constant.

Table 4.3 Ordinal Regression Analysis for Variables Predicting Persistence (N = 188)

Variable	B	SE B	*Wald*
Family	0.28	0.19	2.23
Tribe	-0.13	0.20	0.43
Staff	- 0.44	0.13	0.11
Institution	0.67	0.13	24.73***
Social	0.08	0.09	0.82
Faculty	0.28	0.12	5.23*

*p < .05. **p < .01. ***p < .001.

Cultural Resiliency and Cultural Reciprocity

For cultural resiliency, a multiple linear regression was used to identify how the six

support factors affects resiliency. The linear combination of the six support factors explained

47% of the variance ($R^2 = .47$, $F(6, 187) = 26.64$, $p < .001$). Family ($\beta = .13$, $p < .05$), tribe ($\beta =$

.15, $p < .05$), institution ($\beta = .44$, $p < .001$), and the social ($\beta = .15$, $p < .01$) support factors were

significant factors of cultural resiliency. Both the staff ($\beta = .03$, $p > .05$) and the faculty ($\beta = -.06$,

$p > .05$) support factors were not significantly related with cultural resiliency. Finally, a multiple

linear regression was applied to assess the relationship between the six support factors and

cultural reciprocity. The linear combination of the six support factors explained 55% of the

variance ($R^2 = .55$, $F(6, 187) = 36.40$, $p < .001$). Staff ($\beta = .15$, $p < .05$), institution ($\beta = .18$, p

<.05), social ($\beta = .34$, $p < .001$), and the faculty ($\beta = .47$, $p < .01$) support factors were significant

factors of cultural reciprocity. Both the family (β = .03, p >.05) and the tribal (β =-.16, p >.05) support factors were not significantly related with cultural reciprocity. The results are presented below in Table 4.4.

Table 4.4 Multiple Regression Analyses for Variables Predicting Cultural Resiliency and Cultural Reciprocity (N = 188)

	Resiliency			Reciprocity		
Variable	*B*	*SE B*	β	*B*	*SE B*	β
Constant	-3.20	0.93		0.01		
Family	0.29	0.14	.13*	0.30	0.12	.02
Tribe	0.34	0.15	.15*	-0.16	0.12	-.08
Staff	0.41	0.09	.03	0.15	0.07	.12*
Institution	0.60	0.09	.44***	0.17	0.08	.14*
Social	0.15	0.06	.15*	0.34	0.05	.37***
Faculty	0.76	0.09	.57	0.47	0.77	.39***
R^2	.47			.55		
F	26.64***			36.40***		

*p < .05. **p < .01. ***p < .001.

Social Isolation

Independent samples *t* tests were used to assess whether significant differences exist between LGBTTQ participants who perceived to be socially non-isolated (*n* = 76) and LGBTTQ who perceived to be socially isolated (*n* = 76) for the tribal, family, social, staff, faculty, and institutional support factors. Socially non-isolated participants perceived significantly higher levels of support for all six support factors. The results are presented in Table 4.5.

Table 4.5 Descriptive Statistics and t Tests Comparing Support Factors by Social Isolation

Categories

| | Group | | | | | | 95% CI for | | |
| | Isolated | | | Non-Isolated | | | Mean Difference | | |
	M	SD	n	M	SD	n		t	df
Family	5.65	0.80	76	6.26	0.84	76	0.35, 0.88	4.62	150
Tribe	5.68	1.02	76	6.14	0.68	76	0.18, 0.74	3.24	150
Social	4.94	1.27	76	5.56	1.41	76	0.19, 1.05	2.85	150
Staff	4.20	1.43	76	6.06	0.79	76	1.48, 2.23	9.92	150
Faculty	3.45	1.81	76	5.46	1.66	76	1.44, 2.56	7.10	150
Institution	4.08	1.47	76	5.63	1.05	76	1.15, 1.97	7.48	150

All analyses were all statistically significant at $p < .01$

Limitations of the Study

Although the results offered a glimpse on the Native American LGBTTQ college

experience, there are several limitations to my study. First, LGBTTQ students who participated

in the study self-identified their sexual orientation. As a result, students who are still closeted

may have chosen not to identify their sexual orientation thus skewing the results. Another

limitation imposed was not including a 'transgender' option for the sexual orientation

demographic question during year two of the data collection. I am aware of some Native

American students who identify as transgender, who participated in the study, chose the 'gay'

option, which is not reflective of their identity. Additionally, those who are transgender and who

chose the 'heterosexual' option is not necessarily reflective of their identity either thus skewing

the results. Finally, since this is the first quantitative study examining the college-going

experience for Native American LGBTTQ students there is no baseline or a reference to compare

differences; therefore, the question remains whether these results represent the overall Native

American LGBTTQ population or if they are anomalous?

Discussion

This study offered several contributions to the research on Native American LGBTTQ college student population. First, this study employed a framework that is unique for Native American college students. Researchers (Astin, 1993; Pascaerra & Terrezini, 2005) have based traditional frameworks of college success and engagement on a heteronormative, Anglo-American context, whereas transculturation (Huffman, 2011) is a theory adapted and developed for Native Americans. An additional strength of the study was the representation of 80 federally-recognized tribes and villages; therefore, allowing for the generalization of results to all Native American LGBTTQ students. The generalizaibility could make this study instrumental in establishing the baseline for future Native American LGBTTQ research. Finally, this study analyzed the intersectionality of culture and sexual identity and how these unique variables play a pivotal role in the college-going experience of Native American LGBTTQ students.

Prior research (Guillory & Wolverton, 2008; Lundberg, 2007; Lundberg, 2012) on Native American students has cited on-campus support mechanisms exerting a positive influence on achievement and persistence. The results from this study confirmed that the on-campus support mechanisms (i.e., staff, institution, social, and faculty) were significant predictors of GPA with institutional and faculty support having the most substantial effect on GPA for Native American LGBTTQ students; in other words, higher levels of perceived support from the participant's institution, staff, social, and faculty led to significantly higher GPAs. Additionally, institutional and faculty support were the only significant predictors of persistence; that is students who perceived higher levels of support from their institution and faculty were more likely to persist than students who perceived lower levels of support.

Huffman (2011) postulated that higher levels of support would lead to higher levels of cultural exchange for Native American college students. Additionally, my extension of transculturation explicitly states that perceived support from family, tribe, faculty, staff, social, and the institution can lead to higher educational and cultural outcomes for Native American college students. The results from this study indicated that the on-campus support mechanisms (e.g., staff, institution, social, and faculty) were significant predictors of cultural reciprocity; meaning higher levels of perceived support from the participants' institution, social-network, staff, and faculty led to higher levels of perceived cultural exchange. Scholars (Bosse, Duncan, Gapp, & Newland, 2011; Dodd, Garcia, Meccage, & Nelson, 1995) stated support from the family and tribe is paramount for Native American college students. Although the role of family and tribal support were not significant predictors of academic achievement, persistence and cultural reciprocity, family and tribe were instrumental in maintaining cultural resiliency for Native American LGBTTQ students. Furthermore, both institutional and social support were vital in upholding cultural resiliency. Cultural resiliency was a unique variable because unlike academic achievement, persistence, and cultural reciprocity both on-campus variables (e.g., institutional and social support) and home-environmental variables (e.g., family and tribal variables) were working in tandem and supported higher levels of perceived cultural resiliency.

When situating the Native American LGBTTQ college experience within the existing LGBTTQ higher education literature there are three salient points. First, family support for LGBTQ+ students of color (Gresham, 2009) was vital and this held true for Native American LGBTTQ college students in relation to cultural resiliency; this support was variant and significant. Second, friendship (i.e., social support) was pivotal to GPA, cultural resiliency, and cultural reciprocity. Finally, Evans and Broido (1999) established that a hostile or unsupportive

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campus environment has created an adverse effect on LGBTQ+ students and their identity development. In this study, although I did not measure identity development, the results concluded that higher perceptions of institutional support were correlated with higher GPAs, higher levels of persistence, and higher levels of cultural reciprocity and cultural resiliency.

Social isolation has been cited as part of the sexual identity formation (Cass, 1979) and the cultural identity process (Huffman, 2011). By analyzing the mean differences in responses, socially non-isolated LGBTTQ students had significantly higher mean scores for all six support factors. In other words, socially non-isolated LGBTTQ students perceived to receive more support from their family, tribe, social-network, faculty, staff and their institution compared to their socially isolated LGBTTQ counterparts. The findings are partly congruent with Huffman's theory of transculturation, which claims that socially non-isolated students are perceived to have higher levels of support and coincide with Adams and Phillip's (2009) study where perceptions of isolation from family and friends were absent in some of the researcher's findings. The findings do not substantiate Cass's theory of sexual identity formation because an overwhelming majority (60%) of the participants in this study indicated no perceptions of social isolation. Overall, when analyzing support in comparison to cultural and academic outcomes the findings are in tandem with my extension of transculturation where perceived support is correlated with higher academic and cultural outcomes.

Implications for Practice

My primary goal in undertaking this study was to address the absence of research evidence on the intersectionality of cultural and sexual identity for LGBTTQ Native American college students. I have done so by performing secondary analyses and reporting on the perceptions of support, cultural reciprocity, and cultural resiliency. Accordingly, the first

implication of this research is that it provides empirical evidence on academic achievement and persistence. This information is significant because, up until now, there has not been a study that has addressed the link between cultural identity, sexual identity, academic, and cultural outcomes for Native American LGBTTQ college students.

The second implication of my study derives from the distinctiveness of the North America Indigenous College Student Inventory (NAICSI). The NAICSI was explicitly designed to assess the college-going experience for Native American students. My findings have corroborated previous qualitative research on Native American students that family and tribe support are constant and invariant with most of the variability residing between institutions. In context, this means that both family and tribal are reliable sources of support for Native American college students. In contrast, on-campus support mechanisms and initiatives vary from one institution to the next and these support mechanisms are crucial in facilitating the academic and cultural success of Native American students and Native American LGBTTQ students.

Finally, the third implication of my study is to provide evidence that will allow institutions, faculty, staff, and peers to develop and foster relationships with Native American LGBTTQs. As institutions begin to devote more campus resources to LGBTQ+ and other underserved populations, institutions would be remiss if they failed to acknowledge the link between sexual identity and cultural identity, with focus on Native American LGBTTQ students. Moreover, these results can be utilized to further and expand research for other LBGTQ+ students of color.

Implications for Future Research.

My research, being a secondary analysis, raised several opportunities to expand on this study and to contribute to the LGBTTQ field of knowledge, intersectionality, Native American

college students, and student affairs. However, it is my recommendation that expanding this study should be done through a qualitative lens, which is strictly due to the complexities of Native American identity formation and LGBTTQ identity formation. The results from this study indicated there is a relationship between cultural identity and LGBTTQ identity but to what degree? Additionally, at what age are these two identity formations (i.e., sexual and cultural) intertwined or whether they are separate from one another. Also, additional questions can be written to parse out whether Native American students perceive to be discriminated against or experienced any form of hostility based on their LGBTTQ or ethnic identity. Questions to be elucidated through qualitative research include the following:

- What does the term two-spirit mean to you?

- While on campus, have you experienced any forms of discrimination or hostility based on your sexual orientation?

- At what age did the process begin in reconciling your cultural and sexual identity?

- If you are attending an institution with natives, from other tribes, have they been accepting or supporting of your sexual identity?

- Are there escalated perceived levels of hostility between urban and rural institutions for Native American LGBTTQs?

Finally, as stated in the discussion section, additional research is needed to examine the unique experiences of Native American transgender students and their perceptions of discrimination and hostility. Further research can shed light on the complexities of the intersectionality of sexual orientation, cultural identity, and gender for Native American college students.

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Chapter 5

Conclusion

Synthesis of Results

The first transculturation theory was introduced by Ortíz (2003) to understand the socialization process for Afro-Cubans in a society that valued upholding European ideals and Whiteness and was content on reinforcing this hegemony. Later, Huffman (2011) adapted this theory to discern the lived experiences of culturally-traditional Native Americans who attended Predominately White Institutions (PWIs) and how these Native students used their cultural identity as a mechanism to persist in a new environment which did not value cultural differences. The alternative transculturation framework (Figure 1, p. 32) quantifies the underlying relationship between institutional involvement, peer-social connections, faculty and staff contacts, and family and tribal community interactions and how these variables affect the educational and cultural outcomes of Native Americans attending college. In this section, I will extrapolate the main results of the study and how they relate to the research objectives introduced in Chapter 1. Finally, I will situate the findings into the current scholarship on Native American higher education.

Research Objective 1

To present a comparative and critical analysis on the histories of Afro-Cubans and Native Americans in order to assert why transculturation is an appropriate framework for assessing Native American postsecondary academic and cultural success.

Beginning in the 1980s, Huffman (1990) adapted the theory of transculturation to explain the academic journey and successes of Native American college students; however, there was little background on how this theory was applicable or related to the Native American college

student's cultural experience or phenomena. Nor did Huffman extrapolate on how those who benefited from settler colonialism further marginalized both Native American and Afro-Cubans resulting in cultural loss and the acquiescence to European and White cultural ideals.

The comparative and critical analysis set forth in Chapter 2 examined the histories of Afro-Cubans and Native Americans to understand the ramifications of imperialism, colonialism, and assimilation for these two groups of people. For Afro-Cubans, White Cuban scholars asserted that a culturally-fused Cuban society would require Afro-Cubans to de-Africanize and would need to assimilate into a European-based model to eliminate undesirable cultural characteristics (e.g., Santeria and Abakua). For Native Americans, the U.S. Federal Government mandated that Native Americans de-Indigenize and were forced to abandon all aspects of undesirable tribal cultural characteristics (e.g., language, customs, and superstitions) and assimilate into a European-based model. Both groups were being treated unjustly and inhumanely and were learning how to cope, survive, and become resilient in an unequal power structure.

For Afro-Cubans, this resulted in transculturation, which was based on the "institutional, legal, ethical, religious, artistic, linguistic, psychological, and sexual" (Ortíz, 2003, p. 98) aspects of Cuban life allowing for transmission of cultures and was never a clearly delineated process of cultural adjustment and adaption. Later, Huffman (2011) adapted transculturation as a process to where "American Indian students engage in the process of learning the cultural nuances found in mainstream education while retaining and relying upon their cultural heritage to forge a strong identity and a sense of purpose" (p. 170). Based upon the comparative analysis of these two cases and my research findings on Native American college students, I extended the theory of transculturation as "*a continuous socialization process in which Indigenous students utilize their*

cultural identity to persist, engage culturally, and succeed within any academic environment. Additionally, students predicate this process on the perceived support from one's family, tribe, faculty, staff, friends, and the institution itself. In turn, this perceived support leads to higher cultural reciprocity and cultural resiliency. These cultural outcomes perform as a mediator for academic achievement and persistence."

Research Objective 2

To create an alternative model that does not use a cultural deficient lens when assessing Native American educational achievement.

Assimilation has been the bedrock of Native American federal policy for the previous 200 years and has been both equally effective and catastrophic. Through land-removal, decimation, and the stripping away of cultural traditions, the education system has been effective in condemning Native Americans to a devastating legacy of inferior education and poverty (U.S. Census, 2017). Some of the effects of assimilation include: (1) the devastation of Indigenous languages (Melton, 2003; U.S. Senate, 1969); (2) distrust of the educational system from Native Americans due to the devastating legacy of the boarding school education system (Faircloth & Tippeconnic, 2010); (3) the belief that assimilation is required in order to be successful within the U.S. educational system (Huffman, 2008); and (4) Native American children in elementary and secondary schools continue to have high dropout rates, low graduation rates, (Faircloth & Tippeconnic, 2010) and low-test scores (Ninneman, Deaton, & Francis-Begay, 2017) which permeates into their post-secondary educational experience.

Another cultural-deficit model or theory include acculturation, which researchers assume a cultural loss is inherit and where acculturation is a by-product of assimilation (Redfield, Linton, & Herskovits, 1936). This theory, along with assimilation, have given way to college

student development and student integration theories that place the onus of integration and becoming academically successful at an institution entirely on the student with little consideration for cultural differences The alternative transculturation model proposed in **Chapter 2** (Figure 1, p. 32) shifts the burden from the student and highlights how culturally-responsive institutions can increase cultural integrity for Native American college students, which in turn can lead to higher academic outcomes.

Research Objective 3

To address the lack of quantitative empirical research for the college experiences of Native American students by developing a new instrument and collecting data.

During the turn of the twenty-first century Rendón, Jalomo, and Nora (2000) purported the research on minority college students was still relatively new and at that time focused on African-Americans and Mexican American college students and there was little research on Native Americans, Pacific Islanders, Filipinos, Puerto Ricans, Cubans, and immigrant students. Almost 20 years later, there is still a paucity of empirical quantitative scholarship that focuses on the college experiences of Native Americans with 19 quantitative peer-reviewed empirical journal articles being produced from 1993 to 2016 (Lopez, 2018).

My contribution to quantitative research on Native American college students started with the NAISCI survey instrument design and data collection, as described in **Chapters 1, 3, and 4** of this dissertation. The North American Indigenous College Student Inventory (NAICSI) is a valid and reliable 47-item instrument that assesses the latent construct of cultural integrity for Native American college students across the domains of faculty, staff, institution, social, tribal, and family support along with the outcome factors of cultural reciprocity and cultural resiliency through the lens of transculturation. Huffman (2011) postulated that Native Americans

who are more socially integrated at school have higher levels of cultural exchange, are more academically successful, and are less likely to assimilate. The NAICSI was validated on 1,567 Native Americans students over two years at over 100 institutions, and over 200 tribes were represented in the study.

Additionally, the NAICSI captures information for social isolation, persistence, and student and institutional characteristic where social isolation and reciprocity are the basic tenets of transculturation. By creating the NAICSI, it demonstrates the significant of culturally-relevant instruments being created to understand the importance of cultural integrity. In turn, how this facilitates the academic and cultural success of Native American college students and as a precedent other historically-marginalized populations.

Research Objective 4

To provide more evidence, from the student's perspective, on the perceptions of support from the participant's family, tribe, peers, institution, faculty, and staff; and to examine the relationship between these perceptions of support and academic and cultural success.

The NAICSI was developed to measure the perceived support from the student's perspective for family and tribe, and culturally-competent support from the peers, institution, faculty, and the staff through the lens of transculturation. In turn, how does this support affect cultural reciprocity and cultural resiliency and how does reciprocity and resiliency act as a mediators for GPA and persistence. As shown in **Chapter 3** (Figure 3.1, p. 90) on-campus support (i.e., social, faculty, staff, and the institution itself) were significant predictors of cultural reciprocity and cultural resiliency where increased perceived support led to higher levels of cultural resiliency and reciprocity. As a result, resiliency and reciprocity mediated GPA and persistence, where increased levels of resiliency and reciprocity led to higher levels of GPA and

increased persistence. Out of these six support factors, perceptions of institutional support had the most significant direct effect on resiliency and reciprocity and the largest indirect effect on academic achievement and persistence.

Research Objective 5

To expand the discussion on cultural integrity and include other social markers that describe vulnerable populations such as Native American students who identify as lesbian, gay, bisexual, transgender, two-spirit, or queer (LGBTTQ).

I identified numerous concepts from examining how these participants navigated college life while balancing their Native American identities. Not only are LGBTTQ students faced with the traditional conflicts and challenges of college life, but they also must navigate these experiences with the added context of being Native American and LGBTTQ. Although the NAICSI was not necessarily designed to capture the perceptions of LGBTTQ students, it was designed to capture the perceptions of Native American college students.

What I learned was that perceptions of on-campus support, similar to the results of the SEM model developed for all Native American college students in Chapter 3, had an impact on academic achievement Native American LGBTTQ students with higher perceptions of faculty and institutional support have the most significant effect on GPA; however, when it came to persistence, institutional support was the only significant predictor (**Chapter 4**). Unlike the SEM model results, when it came to cultural resiliency, perceptions of family and tribal support had an effect, which means there were various levels of perceptions of support for LGBTTQ students when compared to the overall sample. Furthermore, one can argue that resiliency may take on an additional layer for this LGBTTQ sample considering the two different identities that are in tandem with one another.

Other concepts that I learned was that perceptions of social isolation for Native American LGBTTQ students did not align with Cass's (1979) model of sexual identity formation where Cass claimed that isolation from friends and family is pivotal to the realization of one's sexual identity. A majority of the participants did not report social isolation and the perceptions of family and tribal support for the LGBTTQ participants was higher when compared to the overall sample. Perceptions of family support was congruent with Adams and Phillip's (2009) study on Native American LGBTTQs all particpants described the importance of family support.

Contributions to Research and Theory

The findings presented in Chapters 3 and 4 address the quantitative void in the research regarding Native Americans in a postsecondary environment and the comparative analysis in Chapter 2 gives credence to using transculturation as a viable theory when assessing the Native American postsecondary experience. The most notable contribution to research is that the NAISCI was explicitly created to measure the experiences of Native American college students. Previously, researchers have underreported statistics for Native Americans due to low participation rates, which leave Native Americans as the invisible minority on college and university campuses nationwide. A 2010 study analyzing the faculty/staff interactions on minority students' grades revealed that when the researchers disaggregated the data, faculty/staff was a significant predictor of grade point averages (GPAs) for Asian-American students, but the relationship was negatively correlated for African-American students, and was not a significant predictor for the Latino-American students (Cole, 2010). Another study (Einarson & Clarkberg, 2010), which included Asian American, African American, and Latino students, but excluded Native American students due to a small size, revealed that Asian American, African American, and Latino students, who perceived to have a higher amount of contact with their faculty outside

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of the classroom, experienced more significant gains in their intellectual abilities. However, no specific information was available for Native American students.

The statistical findings in Chapters 3 and 4 highlight the link between culturally competent support and culturally responsive support services, faculty, staff, and the relationship between cultural integrity, and academic outcomes for Native American students. Additionally, the instrument collects data on social isolation, student demographics (e.g., rural, reservation, urban, first-generation status), and institutional demographics (e.g., two-year, four-year, public, private) which allows for the analyses between subgroups.

For instance, the findings in Chapter 4, which show the experiences of Native American LGBTTQ college students is the first empirical study on this subgroup of students. Although NAISCI study was not specifically designed to measure the LGBTTQ experience, this study will insert Native American LGBTTQ college students into conversations regarding diversity, equity, and inclusion. Additionally, the findings can facilitate a dialogue on how to bridge student services (e.g., Native American student services, multi-cultural student services, LGBTQ student services) so that they do not operate in silos and can be more collaborative in the way student services are provided. As stated above, although this study on Native American LGBTTQ college students was quantitative, I assert that future research, both quantitative and qualitative, to be conducted to give a louder voice on their lived experiences and perceptions of cultural, sexual, and gender identity.

Another contribution is the extension and supposition of the transculturation theory. Based on the histories of Afro-Cubans, Native Americans, and the statistical findings I proposed an alternative transculturation model and theory of what transculturation is for Native American college students (Figure, 1.1, p. 20; Figure 3.1, p. 90). This new alternative model gives

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institutions, institutional agents, community stakeholders, tribal stakeholders, and families a framework on the support that is needed to enable (1) the preservation of cultural identity, while (2) enabling academic success for Native American college students.

Implications for Higher Education Practice and Policy

The study concluded that on-campus support factors had considerable predictive power when analyzing cultural resiliency, cultural reciprocity, GPA, and persistence for Native American college students. The research undertaken in this dissertation demonstrates how these factors can facilitate the academic success of Native Americans in college. Institutions can disseminate the NAICSI to asses a sense of belonging for their Native American students and to gauge campus climate. Oxendine (2015) utilized the NAICSI (Marroquín & McCoach, 2014) to correlate cultural integrity and psychosocial sense of belonging for Native American college students at Non-Native Colleges and Universities. The researcher concluded that the NAICSI yielded a high degree of correlation $r(152) = .69$ $p < .001$ with the Sense of Belonging Scale (SOBS) (Bollen & Holye, 1990). Therefore, demonstrating the NAICSI had practical significance when assessing a sense of belonging for Native students, but more importantly, the NAICSI contained cultural validity due to the instrument being designed specifically for Native Americans.

For policy implications, it is pertinent that the needs of all students be met, even those who are relegated to the margins of research and practice. The findings presented in this dissertation show the significance of institutional responsiveness to the needs of their students and how they can foster success and inclusion. Institutions that enroll a significant proportion of Native American students can look at institutions with strong Native American student centers (as discussed in Chapter 3) and Tribal Colleges and Universities to create and enact policies that

create a culture of success for their Native student population. Additionally, researchers (Rankin, Blumenfeld, Weber, & Frazer, 2010) have indicated that university campuses are not welcoming environments to those who are different in terms of heteronormative ideals especially if they are a student of color. Furthermore, this problem is exasperated when Student Centers that are created to give students who do not fit heteronormative labels a safe place, are centered around White, male ideals. As a result,

> college administrators and practitioners failed to consider or understand the intersectionality of AI/AN culture and LGBTTQ identity and often these students are relegated to either the LGBTQ+ advisor or the multicultural student services advisor, who are often underequipped to handle and assess the unique needs of the multi-faceted, marginalized identities of LGBTTQ AI/ANs. (Marroquín, 2019, p. 13)

Therefore, it is important that institutional policies are shaped to recognize the nuances of possessing multi-faceted, marginalized identities and how this can influence student life.

Researcher's Positionality

Almost 20 years ago, I worked for Title VII (then known as Indian Education) for Norman Public Schools where I was tasked with providing support to Native American juniors and seniors. At the time, I was a junior at the University of Oklahoma, and I was helping high school seniors who were overwhelmed with the college and financial aid process. Similar to them, I was faced with the same predicament with the meticulous process of applying to college and also undertaking the task of being the first member of my family to attend a university. Often, being a first-generation college student poses a set of problems not often faced by other aspiring college students but being a first-generation Native American college student is often compounded by a lack of support, lack of comprehension of the culture and values of other

college students and faculty, and the stereotyping of dismal attrition and retention rates of Native students.

Before I entered college, I had never envisioned that I would have come as far as I have primarily due to the "asterisk effect." The "asterisk effect" is what my Native Americans colleagues refer to the number of Native American students that are on a college campus being so small that is denotated by an asterisk (Garland, 2010). This number gravely decreases, and the asterisk becomes smaller once you start looking into master and doctoral level statistics for Native Americans (U.S. Department of Education, 2016). For the previous 12 years, I have been researching cultural support concerning the academic success of Native American college students and have found very little empirical quantitative research that studies this relationship. For scholarship that highlights the experiences of historically marginalized groups, researchers have used the small representation of Native Americans at any given institution as a reason to exclude this subset of students when analyzing the experiences of college students. As a result, institutions and researchers have silenced the voices of Native American students.

Initially, when I began my master's program in 2007, I wanted to become proficient in qualitative research due to some overlap with Indigenous methodologies, but after discovering the lack of quantitative research I decided to become skilled in quantitative methodology to move the voices of Native American college students beyond the footnotes of research. To do so, I studied the history behind the theory of transculturation and how this theory applied to Native American college students. Additionally, within the theory of transculturation, I investigated the socialization process for Native American college students and how cultural-specific support is paramount to academic success and cultural identity. Moreover, I dedicated my research time to develop an instrument guided by these cultural and social frameworks and to collect data on

Native American college students by asking survey questions that resonate with their values, beliefs, and needs. This article-based dissertation is a reflection of my scholarly interest in where I was able to bridge quantitative methodology and a culturally-relevant theory from an Indigenous lens.

Final Thoughts and Moving Forward

As an Indigenous researcher and as a quantitative methodologist, it is my responsibility to incorporate Indigenous methodologies within my research by moving beyond having an Indigenous perspective to researching from an Indigenous paradigm (Wilson, 2001). My view of researching from an Indigenous paradigm means constantly challenging western research paradigms and epistemologies as the center of legitimate and civilized knowledge (Smith, 1999) and decolonizing the way knowledge is gathered, created, disseminated, and how this knowledge can be impactful for Indigenous communities. These are tenets of critical theory in that research drives social change resulting in an axiology that improves the lives of those who are being researched (Wilson, 2001). It is my hope moving forward that the knowledge gathered and created within this dissertation can be used as a starting point in which quantitative research, synthesis, and evaluation that address the needs of Indigenous students create a unique scholarship that is grounded in an Indigenous paradigm and reflects an Indigenous context.

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Appendices

Appendix A

2013 IRB Approval

University of Connecticut
Office of Research Compliance

DATE:	March 25, 2013
TO:	D. Betsy McCoach, Ph.D. Craig Marroquin, Student Investigator EPSY, Unit 3064
FROM:	Deborah Dillon McDonald, RN, Ph.D. Chair, Institutional Review Board FWA# 00007125
RE:	Exemption #X13-029: "Assessing Cultural Integrity for Native American College Students" *Please refer to the Exemption# in all future correspondence with the IRB.* Funding Source: Investigator Out-of-Pocket ***Approved on:*** <u>**March 25, 2013**</u>

The Institutional Review Board (IRB) reviewed the "Request for Exemption" for the research study referenced above. According to the information provided, the IRB determined that this research is exempt from continuing IRB review under 45 CFR 46.101(b)(2): Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. Enclosed please find a validated information sheet. An approved, validated information sheet (with the IRB's stamp) must be used to consent each subject.

Per 45 CFR 46.117(c)(1), the IRB waived the requirement for the investigator to obtain a signed consent form for the subjects because it found that the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject's wishes will govern.

All investigators at the University of Connecticut are responsible for complying with the attached IRB "Responsibilities of Research Investigators".

Any proposed changes that may affect the exempt status of the research study must be submitted to the IRB for review and approval prior to their implementation.

Attachments:
1. Validated Information Sheet
2. Validated Recruitment Flyer and Email Messages
3. Validated Appendix A Form
4. Validated IRB-5
5. "Responsibilities of Research Investigators"

UCONN
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DATE: February 27, 2014

TO: Betsy McCoach, Ph.D.
              Craig Marroquin, Student Investigator
              EPSY, Unit 3064

FROM: Jaci L. VanHeest, Ph.D.
              Chair, Institutional Review Board
              FWA# 00007125

RE: Exemption #X13-029: "Assessing Cultural Integrity for Native American College
              Students"
              Please refer to the Exemption# in all future correspondence with the IRB.

The request for approval of an amendment received February 21, 2014 for the above-referenced protocol was approved by the Institutional Review Board (IRB) on February 26, 2014. The amendment does not change the IRB's previous determination that the study is exempt under 45 CFR 46.101(b)(2): Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation. Enclosed please find a validated information sheet. An approved, validated information sheet (with the IRB's stamp) must be used to consent each subject.

The amendment includes:

1. The number of participants to be enrolled will be increased from 500 to 1500.
2. The incentive will be changed from 10 $25 gift cards to 25 $10 iTunes cards.
3. Students recruited in the next wave of enrollment will be asked if they would be willing to be contacted to participate in the future follow-up study. They will be taken to a separate screen to input contact information that is not connected to their survey responses.

The amendment also does not change the IRB's previous determination to waive signed consent. Specifically, per 45 CFR 46.117(c)(1), the IRB waived the requirement for the investigator to obtain a signed consent form from the subjects because it found that the only record linking the subject and the research would be the consent document and the principal risk would be potential

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Appendix C

The North American Indigenous College Students Inventory (NAICSI) Definitions

Subscale	
Family Support	The family support subscale assesses the interactions between the participants and their families and the support the participant perceived to receive from his or her family.
Tribal Community Support	The tribal support subscale assesses the perceived support and expectations from students' tribal communities/villages and, more importantly, whether the participants still perceive that their community still sees them as one of their own after they started college.
Institutional Support	The institutional support subscale assesses the perceptions of how much participants felt supported by their institutions. Institutional support will be measured through campus initiatives, cultural continuity, and the sense of belonging that Native students felt once they arrived on campus. This factor includes eight items.
Faculty Support	The faculty support scale assesses the communication and experiences between the faculty and the students at the institution; more so, whether the participants perceived that their professors hold high expectations from them and whether they perceived the showing of respect for their culture from professors. This factor includes seven items.
Staff Support	The staff support scale assesses the communication and experiences between the staff and the students at the institution; more so, whether the participants perceived that their advisors hold high expectations from them and whether the participants perceived the showing of respect for their culture from the advisors and the institutional staff; this factor includes eight items.
Social Support	The social support subscale assesses the interactions between the participants and their peers, participation in student groups on campus, and whether they view campus friends as an informal family. This factor includes six items.
Cultural Reciprocity (outcome)	The cultural reciprocity subscale assesses whether participants perceived what they learned about other cultures while on campus, but also by how much they have shared their own culture with others.
Cultural Resiliency (outcome)	The cultural resiliency subscale assesses the perceptions of overcoming adversity and maintaining a strong sense of one's Native culture.

Means, Standard Deviations, and Internal Consistency for All Participants

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North American Indigenous College Student Inventory (NAICSI)

	M	*SD*
Factor 1: Family Support (α = .87)		
My family encouraged my decision to attend college.	5.91	1.16
My family is actively involved with my education.	5.71	1.24
My family holds high expectations of me.	5.91	1.12
When I am at school, my family contacts me (email, phone, Skype, text, mail) to see how I am doing at school.	5.76	1.24
My family expects me to graduate from college.	5.91	1.08
Factor 2: Tribal Support (α = .89)	*M*	*SD*
My tribal/village community wants me to succeed.	5.65	1.20
My tribal/village community holds high expectations of me.	5.63	1.12
My tribal/village community sees me as a role model now that I am in college.	5.68	1.21
At tribal/village gatherings, tribal members ask me about college.	5.62	1.20
My tribal/village community still sees me as one of them.	5.67	1.20
At tribal/village gatherings, tribal members ask me about college.	5.61	1.27
When I go home, my Elders ask me about school.	5.68	1.22
Factor 3: Faculty Support (α = .89)	*M*	*SD*
My professors understand if I must leave school to attend a marriage, funeral, or cultural event back home.	4.82	1.81
When I make cultural links to class content, my professor respects my comments.	4.91	1.70
My professors help me to understand the long-term benefits that completing college will have for me.	4.91	1.74
My professors show respect for my culture.	4.94	1.71
I feel connected to my professors.	4.90	1.74
There is a professor, who is American Indian/Alaska native, on campus that I can talk to.	4.73	1.93
My professors hold high expectations of me.	4.97	1.79
Factor 4: Staff Support (α = .96)	*M*	*SD*
I feel connected to my academic advisor.	4.76	1.87
My academic advisor shows respect for my culture.	4.76	1.71
My academic advisor holds high expectations from me.	4.76	1.73
My academic advisor helps me to understand the long-term benefits that completing college will have for me.	4.80	1.82
There is/has been a staff person, who is American Indian/Alaska Native that is supportive of my academic success.	4.85	1.90
There is/has been a staff member that has helped me to access various campus resources (helping to apply for financial aid/scholarships, registering for classes, finding tutoring resources, etc.).	4.90	1.85
The staff (financial aid, student services, registration) on my campus shows respect for my culture	4.77	1.82
I feel connected to the staff on campus.	4.86	1.74
Factor 5: Institutional Support (α = .93)	*M*	*SD*
My university or college hosts Native cultural activities on campus, such as Pow-Wows, American Indian/ Alaska Native Month, etc.	5.00	1.82
My university or college has a strong commitment to increasing American Indian/Alaska Native cultural awareness on campus.	4.85	1.79
There is no support for American Indian/Alaska Native students at this institution. (Reverse Scored)	5.13	1.79

	_M_	_SD_
American Indian/Alaska Native culture is well represented on campus.	4.97	1.81
My college has a space that American Indian/Alaska Native students can meet and socialize.	4.89	1.82
I feel like my college or university has given up on me. (Reverse Scored)	5.03	1.90
The staff (financial aid, student services, registration) on my campus shows respect for my culture	4.83	1.80
I feel connected to the staff on campus.		

Factor 6: Social Support (α = .93)	_M_	_SD_
I can speak my Native language/dialect with other students on campus.	4.15	2.07
I participate in an American Indian/Alaska Native Club on campus.	4.60	1.88
My peers show respect for my culture.	4.77	1.81
I participate in student groups/clubs on campus.	4.74	1.84
I have American Indian/Alaska Native friends on campus.	4.84	1.84
I feel like I am a part of the college campus community.	4.77	1.91
I see my friends on campus as family.	4.76	1.88

Factor 7: Cultural Resiliency (Outcome) (α = .89)	_M_	_SD_
While at college, I have felt pressured to hide certain aspects of my culture. (Reverse Scored)	4.81	1.96
While at college, I feel like I have had to change who I am in order to be successful. (Reverse Scored)	4.68	1.94
Since starting college, I have been able to maintain a strong sense of my culture.	4.74	1.89

Factor 8: Cultural Reciprocity (Outcome) (α = .92)	_M_	_SD_
Since starting college, I have learned about another person's culture.	4.74	1.96
Since starting college, I have shared aspects of my culture with other people.	4.75	1.93

Appendix E

Missing Data and Data Preparation

**Missing Data and Data Preparation**

The sample included 1,100 participants; however, I excluded 1.84% ($n = 20$) of the

participants due to missing data on key demographic variables (e.g., university, grade

classification, upbringing). Additionally, I excluded 1.27% ($n = 14$) due to the data being

univariate or multivariate outliers. Also, 1.38% ($n = 15$) of the participants had missing data

computed on four to seven items. Missing values were computed for the 15 participants by

utilizing the expectation maximization algorithm (EM), which imputes missing data based on

known data and the current parameters of observations. The algorithm replaced the missing

observations with the estimated values (Schafer, 1997; Schafer & Olsen, 1998). Before

computing maximization estimates, Little's Missing Completely at Random (MCAR) test was

performed. A MCAR test assesses whether missing data are distributed randomly in the dataset

(Little, 1988). The MCAR tests yielded non-statistically significant results, $\chi^2 (585) = 499.5$ $p <$

.680 which is the threshold for determining that data is missing at random.

To ensure the data exhibited univariate and multivariate normality both univariate and

multivariate outliers were identified, modified, and/or deleted based on Tabachnick and Fidell's

(2007) guidelines. A univariate outlier is a data point which contains an extreme value, whereas

a multivariate outlier is a combination of extreme values or scores on two variables or more

(2007). To identify univariate outliers, standardized scores which exceeded ±3.29 ($p < .001$, two-

tailed test) were removed for a total of six cases. In identifying multivariate outliers, I examined

the Mahalanobis distance for each case and cases where the distance was greater than χ^2 at $p <$ .001 were removed for a total of 14 cases. The resulting sample size consisted of 1,066 participants.
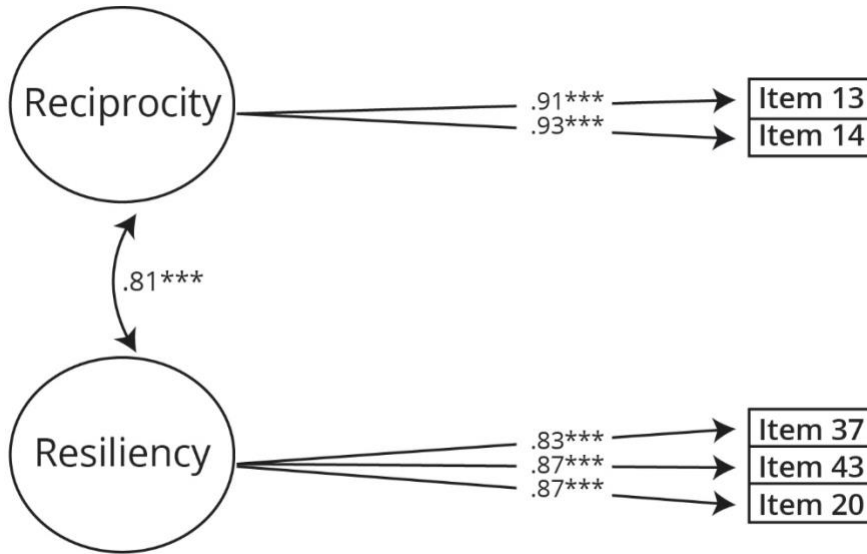
Appendix F

Standardized Factor Loadings from Confirmatory Factor Analysis
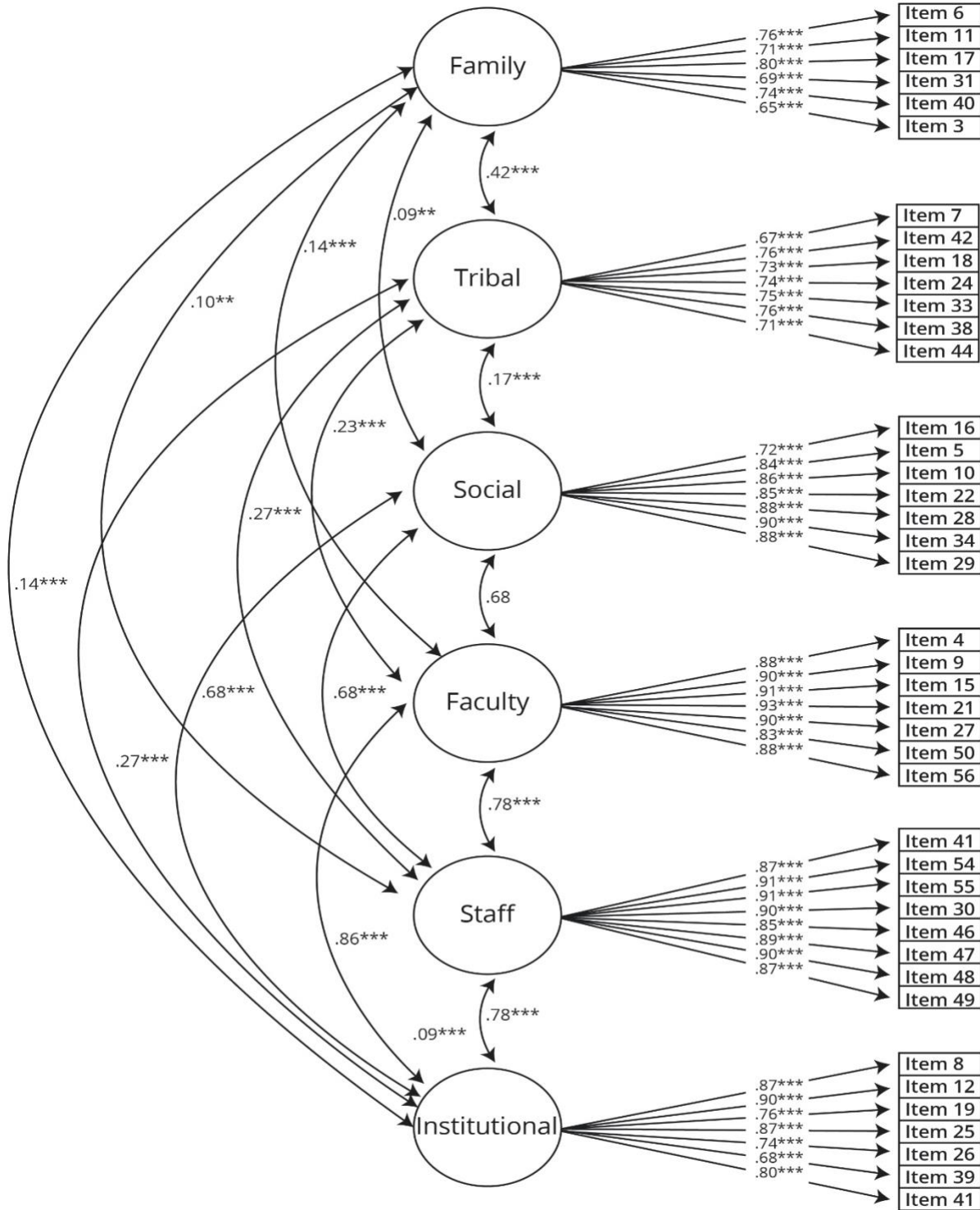
Appendix G

Standardized factor loadings from confirmatory factor analysis (outcome variables)

Appendix H

Indirect Effects for the Structural Equation Model Predicting GPA *(N = 1,066)*

Table H1

GPA	Indirect Effects		
	β	*B*	*B SE*
Family	0.00	0.00	.00
Tribal	-0.03	0.02	.01
Social	0.13	0.06	.00***
Staff	0.07	0.02	.00***
Institutional	0.32	0.12	.00**
Faculty	-0.23	0.09	.01***

p < .05. **p* < .01. ***p* < .001.

Table H2

Indirect effects for the structural model predicting persistence *(N = 1,066)*

Persistence	Indirect Effects		
	β	*B*	*B SE*
Family	0.00	0.00	.01
Tribal	-0.02	-0.02	.01
Social	0.10	0.07	.01**
Staff	0.05	0.03	.01**
Institutional	0.26	0.17	.02**
Faculty	0.16	0.11	.02**

p < .05. **p* < .01. ***p* < .001.

Means, Standard Deviations, and Internal Consistency for LGBTTQ Participants

North American Indigenous College Student Inventory (NAICSI)

Factor 1: Family Support (α = .89)	M	SD
My family encouraged my decision to attend college.	6.09	0.88
My family is actively involved with my education.	5.98	0.90
My family holds high expectations of me.	6.02	0.94
When I am at school, my family contacts me (email, phone, Skype, text, mail) to see how I am doing at school.	6.10	1.06
My family expects me to graduate from college.	5.95	1.01
My family supports my academic decisions.	5.90	1.44

Factor 2: Tribal Support (α = .95)	M	SD
My tribal/village community wants me to succeed.	5.74	0.82
My tribal/village community holds high expectations of me.	5.92	0.96
My tribal/village community sees me as a role model now that I am in college.	5.97	0.95
At tribal/village gatherings, tribal members ask me about college.	5.97	0.86
My tribal/village community still sees me as one of them.	6.07	0.98
At tribal/village gatherings, tribal members ask me about college.	6.00	1.00
When I go home, my Elders ask me about school.	5.94	1.01

Factor 3: Faculty Support (α = .96)	M	SD
My professors understand if I must leave school to attend a marriage, funeral, or cultural event back home.	4.86	1.62
When I make cultural links to class content, my professor respects my comments.	5.01	1.41
My professors help me to understand the long-term benefits that completing college will have for me.	5.07	1.39
My professors show respect for my culture.	5.03	1.52
I feel connected to my professors.	5.06	1.51
There is a professor, who is American Indian/Alaska native, on campus that I can talk to.	4.89	1.75
My professors hold high expectations of me.	5.00	1.74

Factor 4: Staff Support (α = .95)	M	SD
I feel connected to my academic advisor.	5.23	1.46
My academic advisor shows respect for my culture.	5.26	1.37
My academic advisor holds high expectations from me.	5.22	1.37
My academic advisor helps me to understand the long-term benefits that completing college will have for me.	5.29	1.40
There is/has been a staff person, who is American Indian/Alaska Native that is supportive of my academic success.	5.35	1.37
There is/has been a staff member that has helped me to access various campus resources (helping to apply for financial aid/scholarships, registering for classes, finding tutoring resources, etc.).	5.38	1.42
The staff (financial aid, student services, registration) on my campus shows respect for my culture	5.32	1.42
I feel connected to the staff on campus.	5.42	1.34

Factor 5: Institutional Support (α = .94)	M	SD
My university or college hosts Native cultural activities on campus, such as Pow-Wows, American Indian/ Alaska Native Month, etc.	5.22	1.64
My university or college has a strong commitment to increasing American Indian/Alaska Native cultural awareness on campus.	5.18	1.40
There is no support for American Indian/Alaska Native students at this institution. (Reverse Scored)	4.96	2.06
American Indian/Alaska Native culture is well represented on campus.	5.31	1.46

	$\underline{M}$	$\underline{SD}$
My college has a space that American Indian/Alaska Native students can meet and socialize.	5.23	1.42
I feel like my college or university has given up on me. (Reverse Scored)	5.23	1.93
My university allows me to smudge (burn cedar) or perform other cultural activities while I'm on campus	5.21	1.76

Factor 6: Social Support (α = .92)

	$\underline{M}$	$\underline{SD}$
I can speak my Native language/dialect with other students on campus.	4.18	2.04
I participate in an American Indian/Alaska Native Club on campus.	4.60	2.03
My peers show respect for my culture.	4.78	1.94
I participate in student groups/clubs on campus.	4.75	1.99
I have American Indian/Alaska Native friends on campus.	4.76	1.97
I feel like I am a part of the college campus community.	4.82	1.97
I see my friends on campus as family.	4.92	1.96

Factor 7: Cultural Resiliency (Outcome) (α = .95)

	$\underline{M}$	$\underline{SD}$
While at college, I have felt pressured to hide certain aspects of my culture. (Reverse Scored)	5.05	1.90
While at college, I feel like I have had to change who I am in order to be successful. (Reverse Scored)	5.04	1.97
Since starting college, I have been able to maintain a strong sense of my culture.	4.91	2.05

Factor 8: Cultural Reciprocity (Outcome) (α = .92)

	$\underline{M}$	$\underline{SD}$
Since starting college, I have learned about another person's culture.	4.81	1.82
Since starting college, I have shared aspects of my culture with other people.	5.00	1.74