

KONAWAY NIKA TILlicum NATIVE AMERICAN YOUTH ACADEMY:
CULTURAL IDENTITY, SELF-ESTEEM, AND ACADEMIC OPTIMISM

by

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

of

MASTER OF SCIENCE

in

Psychology

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2019

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ABSTRACT

Konaway Nika Tillicum Native American Youth Academy:

Cultural Identity, Self-esteem, and Academic Optimism

by

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Utah State University, 2019

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Through using a Positive Youth Development framework and culturally based education program, Konaway Nikka Tillicum Native American Youth Academy aspires to mentor and prepare Native youth through high school and on to higher education. This community-based participatory research partnership investigated cultural identity, self-esteem, and academic optimism of Native American youth attending the academy. Within this program evaluation, the variables examined were found to be significantly related to one another and to have increased significantly from baseline to post-intervention. Additionally, none of the measured factors were predictive of participants overall GPA at baseline. Lastly, the relationship between cultural identity and academic optimism appeared to be explained through the indirect effect of self-esteem. The results suggest that culturally based education and positive youth development programs such as Konaway are efficacious in increasing protective factors among Native American youth. Additionally, targeting self-esteem at the intervention level appears to be particularly meaningful for increasing academic optimism.

(63 pages)

PUBLIC ABSTRACT

Konaway Nika Tillicum Native American Youth Academy:
Cultural Identity, Self-esteem, and Academic Optimism

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Through using a Positive Youth Development framework and culturally based education program, Konaway Nikka Tillicum Native American Youth Academy aspires to mentor and prepare Native youth through high school and on to higher education. This collaborative research partnership investigated cultural identity, self-esteem, and academic optimism of Native American youth attending the academy. The results of this program evaluation found that cultural identity, self-esteem, and academic optimism were all closely related to each other as well as that they increased significantly when measured before and after the academy. GPA was found to not be predictive of cultural identity, self-esteem, or academic optimism prior to students attending the academy. Lastly, the relationship between cultural identity and academic optimism appeared to be explained through the indirect effect of self-esteem. The results suggest that culturally based education and positive youth development programs such as Konaway are efficacious in increasing protective factors among Native American youth.

ACKNOWLEDGMENTS

I would like to thank Dr. Melissa Tehee, my advisor and committee chair, for mentoring me through this unique research experience. She has created the most supportive learning environment for Native Students in her research lab and is willing to adventure right alongside them in their endeavors. She has truly been an invaluable asset to this research project and to the success of Native American students. I would like to thank my additional committee members, Dr. Susan Crowley, Dr. Renee Galliher for their support and encouragement throughout the entire three-year process. They have been inspirations in the field of multicultural psychology and act as inspiring role models for their success as tenacious women in academia.

I would like to give a special thanks to the Konaway Nika Tillicum Native American Youth Academy program, staff, and students. Without the incredible staff this program could not continue to thrive and support Native youth in the rare way that this one does. A special thank you to Dr. Jean Maxwell, David West, Brent Florendo, and James Florendo for their efforts to create and maintain this incredible community centered program for our Native youth. To the students, you are the heart of this program and you are the only reason the Konaway drum continues to beat with such resiliency and pride. Southern Oregon University Youth Programs staff has been a longtime supporter and ally to the Konaway program and actively encouraged the development and implementation of this research.

I am especially grateful to the generous guidance from my powerful female mentors in my college career. Dr. Brook Colley, Chava Florendo, Lori Adams, Dr. Melissa Tehee, and Dr. Carolyn Barcus have modeled for me what strong, resilient, and

ambitious Native American women look like. They have inspired my creativity, passion, and resilience on this project and advocated for me along the way. And to Dr. Emily Reeder and Dr. Dee Southard for taking a chance on a first-generation college student and always challenging me to advance myself to my full potential.

Tamara Barrett

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CHAPTER I

INTRODUCTION

Native American Youth Education Crisis

Education is one of the strongest predictors of physical and mental health in the United States (Freudenberg & Ruglis, 2007). Native American youth have the lowest high school enrollment, graduation, and college completion rates compared to any other racial or ethnic group in the United States (Indian Health Services, 2018), which is reflective of systemic issues and not individual student's ability. Attainment of a high school diploma and achievement of higher education is associated with many benefits such as increased income, decreased likelihood to be incarcerated, and overall healthier lives (Freudenberg & Ruglis, 2007). Limited education is predictive of earlier death across all populations, however, Native Americans already hold the highest mortality rates and lowest life expectancy compared to any other group (Freudenberg & Ruglis, 2007; Indian Health Services, 2018). School dropouts are now being framed as a public health crisis rather than just an educational issue (Freudenberg & Ruglis, 2007). The United States consistently implements educational interventions within public school systems to increase effectiveness of teaching and learning, however, most often those interventions tend to be developed for the majority population.

Currently, interventions targeted toward oppressed minority populations that are below the normative level of educational attainment are limited. Tribal communities throughout the United States are developing community-based interventions to focus on overcoming the trauma and loss faced by communities and embracing cultural practices and experiences (Garrett et al., 2014). These interventions typically consist of language

immersion programs, holistic wellness centers, and tradition-based programs. Culturally adapted interventions are successful in reducing the health disparities within Tribal communities (Chandler, Lalonde, Sokol, Hallett, & Marcia, 2003). Educational interventions are most effective when they reflect a personalized educational environment that integrates mainstream education with traditional cultural learning while promoting development and community resilience (Adelman, Taylor, & Nelson, 2013; Garrett et al., 2014).

States that hold the highest populations of Native Americans also have disproportionately low graduation rates for Native American youth. For example, graduation rates of Native Americans in New Mexico and South Dakota are disparately low at 39% and 28% compared to the national average of United States high school students 80% (Adelman et al., 2013). On average, schools that are funded by the Bureau of Indian Affairs (185 schools, 23 states) have a high school graduation rate below 50% (Office of the Inspector General, 2015). In 2014, then President Barack Obama visited the Standing Rock Sioux Tribe in Cannon Ball, North Dakota and observed the inequalities and burdens Standing Rock Sioux children face in the world of education. The White House recognized the tribal education crisis and declared Native American youth and their education system as a “state of emergency” with new programs and initiatives to help support Native youth and prepare them for college. Executive Order No. 13592, aimed to close the achievement gap and increase graduation rates for American Indian and Alaska Native youth. The order specifically promoted efforts to expand access to college support services, support innovative dropout prevention

strategies, increase college access, and meet the unique cultural and language needs of Native students (2011).

History of Native American Education

Historically, the relationship between Native Americans and the U.S. education system can be described as vicious and invasive which has resulted in extreme distrust. The U.S. government's forced removal of Native American and Alaska Native children from their families and tribes to remote boarding schools, beginning in the late 1800s, has been cited as having the longest lasting harmful effects of all assimilation and termination policies (Brave Heart & DeBruyn, 1998). There were stereotypical ideas and beliefs that educating Native American students needed to be centered on converting them into English speaking "Americans" (Ridgeway & Pewewardy, 2004). The motto of colonial education of the time was "Kill the Indian, Save the Child" (Brokenleg & Van Bockern, 2003). These traumatic historical experiences are woven into today's education system for Native American students and their communities. Today, leaders and educators are looking to change the historical relationship between tribes and the education system.

CHAPTER II

LITERATURE REVIEW

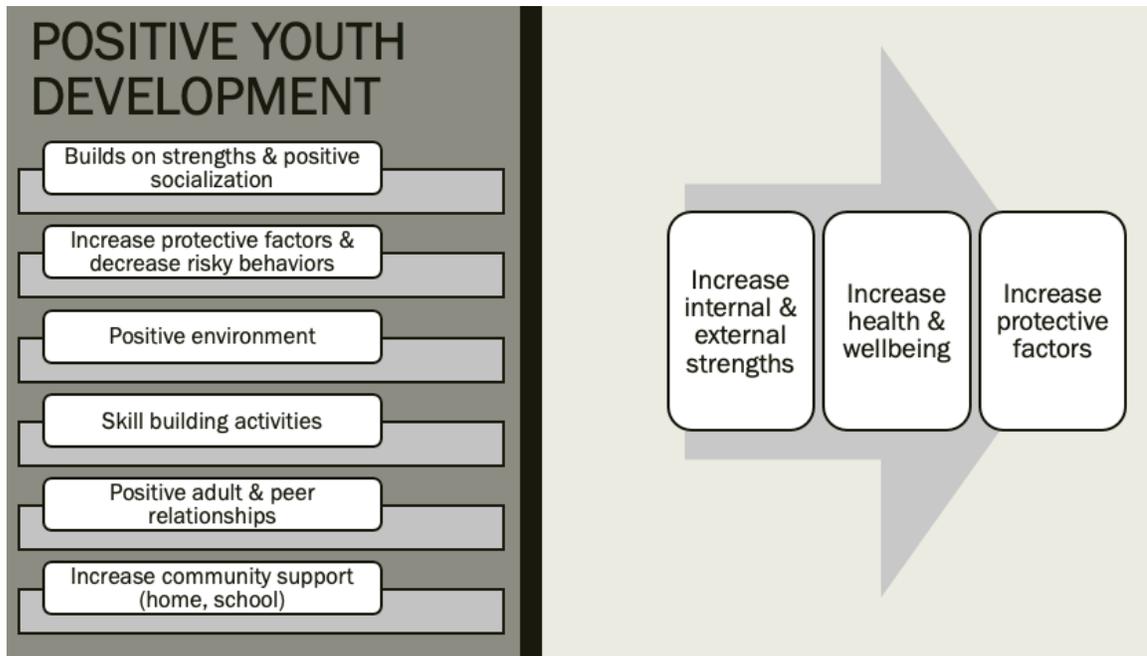
This literature review will consist of defining Positive Youth Development and reviewing the research of programs that use a positive youth development model in their interventions. It will also review literature surrounding culturally sensitive interventions, culturally based education and important protective factors for Native American youth

Positive Youth Development Framework

Positive Youth Development is a theoretical framework (see Figure 1) that builds upon youth's strengths with positive socialization to increase health and wellbeing (Kenyon & Hanson, 2012). Other programs often focus on the deficits of youth rather than their strengths and potential. Damon (2004) elaborates on the positive difference in intentions positive youth development has compared to alternative models: "The positive youth development perspective emphasizes the manifest potentialities rather than the supposed incapacities of young people- including young people from the most disadvantaged backgrounds and those with the most troubled histories" (p. 17)

Positive youth development aims to increase protective factors and decrease risky behaviors for youth. Some of the goals of positive youth development are skill building, building relationships, creating a safe environment, and increasing support in their communities, schools, and homes. Programs with a positive youth development framework focus on a positive environment, positive adults and peers, and promote proficiency on social, emotional and behavioral aspects of life (Benson, Scales, Hamilton, & Sesma, 2007). For the general youth population, programs using a positive youth development framework are effective at increasing both internal and external

Figure 1

Positive Youth Development

strengths, which are positively associated with health and academic success and inversely related to risky behaviors (Scales, Benson, Leffert, & Blyth, 2000; Scales, Benson, Roehlkepartain, Sesma, & van Dulmen, 2006). Kenyon and Hanson (2012) give a strong argument and rationale that implementation of positive youth development programs in Native American populations is crucial. Other researchers agree that teaching Native youth through traditional values and cultural activities are some of the best ways to empower youth (HeavyRunner & Morris, 1997). Brokenleg & Van Bockern (2003) developed a holistic approach, The Circle of Courage, to reclaiming youth which is grounded in resilience and values. The approach embodies four core values for nurturing children; (1) The spirit of Belonging, (2) The Spirit of Mastery, (3) The Spirit of Independence, (4) The Spirit of Generosity. These core values are based upon four of the dimensions of positive psychosocial development: attachment, achievement, autonomy,

and altruism. Much like The Circle of Courage, the original positive youth development method incorporates the five Cs: competence, connection, caring, character, and confidence. Researchers suggest that using the traditional Native worldview will assist in implementing the five Cs since Native culture is based on the integration of these values (Kenyon & Hanson, 2012).

There have been several different types of positive youth development programs implemented within Native American communities for Native youth but the majority of them are focused on prevention of suicide and substance abuse. The few that have focused on the preventions mentioned above have shown that students attending the programs have less suicidal ideation, hopelessness, and decreased substance abuse (LaFromboise & Howard-Pitney, 1995; Moran & Reaman, 2002). A review of programs with a positive youth development framework found positive effects on health outcomes by strengthening the family, school, and community context (Gavin et al., 2010). The intervention for instilling strength included communicating expectations, providing opportunities for recognition, and involving youth in decision making and leadership roles.

Ethnic matching and culturally sensitive training for providers can enhance retention and improves treatment outcomes (Miller, 2007; Miranda et al., 2005). The conceptual model of youth mentoring suggests that it is essential for a strong and meaningful personal connection to be created between youth and mentors for successful mentorship (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011). Ethnic matching among youth and mentors is a moderator for effect size when measuring success of mentorship programs (DuBois et al., 2011). Although ethnic matching is not a direct

variable in the success of mentoring relationships, it is suggested that optimal matching goes beyond demographic characteristics and goes deeper into other considerations of compatibility (DuBois et al., 2011). Culturally sensitive educational interventions, especially those with a positive youth development framework, focus primarily on compatibility of their mentors/staff with the youth population that they are serving.

Culturally Sensitive Interventions

Cultural components, such as culturally specific traditions, must be considered in the development and implementation of interventions (Castro, Barrera, & Holleran Steiker, 2010). Engagement in traditional activities and support from adults/family members and tribal leaders proves as a protective factor against hopelessness and suicide with Native youth (Pharris, Resnick, & Blum, 1997). As the importance of culture becomes more widely considered, researchers stress the significance of utilizing positive aspects of culture in intervention and prevention (Masten & Reed, 2002). Cultural competence and culturally sensitive interventions (CSIs) are receiving increased attention as a means to help professionals deliver culturally responsive evidence-based treatments to a diverse range of people (Castro et al., 2010; Rogler, Malgady, Costantino, & Blumenthal, 1987). CSIs are the degree in which a target group's culture (i.e., beliefs, practices, values, norms) is combined into the design, delivery, and evaluation of an intervention (Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000). Cultural competence was defined in 1989 as:

A set of behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables them to work effectively in cross-cultural situations.... Cultural competence is that acceptance and attention to the

dynamics of difference, the ongoing development of cultural knowledge, and the resources and flexibility within service models to meet the needs of minority populations (Cross, Bazron, Dennis, & Isaacs, 1989).

Interventions become more accessible, congruent, and effective when social and cultural characteristics are considered. (Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003; Rogler et al., 1987). Cultural values influence physical and mental health outcomes (Jackson & Hodge, 2010). Meza (2015) suggests that an increase in academic grades, interest in higher education, and self-identity are results of remaining attentive to cultural foundations. The academic success of Native American students may rely on the impact that culture has on their personal lives. These values in identity can have an impact that extends on to the importance of community.

CSIs may not have the same “evidence-based” characteristics as some interventions due to lack of access to research and funds, however CSIs have advantages over traditional “mainstream” evidence-based interventions. The incorporation of culturally sensitive and culturally relevant content in interventions improves engagement and enhances intervention relationships (Jackson-Gilfort, Liddle, Tejada, & Dakof, 2001). CSIs treating substance abuse of Native American youth were analyzed and unfortunately most of them were not rigorously evaluated to be able to provide substantive evidence to be able to be compared to mainstream interventions (Hawkins, Cummins, & Marlatt, 2004).

Culturally Based Education for Native Youth

Epidemiological research has shown that education is the so called “elixir” to life by reason of that it increases life expectancy, decreases negative health behaviors, and

decreases overall health disparities (Freudenberg & Ruglis, 2007). It has long been argued that creating access to quality education is critical in terminating the historical, social, and economic gap between minority and dominant populations (Adelman et al., 2013). Native youth are underrepresented in research and especially in research promoting positive and successful development in education. The majority of research for Native youth focuses on mitigating negative health behaviors after they occur and do not attend to the positive aspects of traditional Native culture. One of the very few studies examining positive aspects of traditional Native culture in education of Native American children was conducted by Kratochwill and colleagues in 2004. The study examined a multi-family school program that expressed tribal values in parent and school training. The goals of the intervention were to increase academic performance and reduce classroom problem behaviors. The intervention was adapted to express tribal values while maintaining the core components of the intervention. The basic strategies that were implemented for Native Americans were increasing the accessibility, using role modeling, and integrating traditional healing methods with culturally appropriate interventions. Results showed that families who participated in the intervention reported a less withdrawn status and less aggressive behaviors of their children, while teachers reported greater social skills and greater academic competence of the children (Kratochwill, McDonald, Levin, Young Bear-Tibbetts, & Demaray, 2004).

Cultural compatibility framework is the most common theory of culturally based education with the suggestion that education is more efficacious when there is an increase in congruence between students, educators, and the school. The construct of culturally based education consists of many theories. Demmert and Towner (2003) operationally

defined the six critical aspects from these culturally based education theories for Native American students to include (1) recognition of their Native language (2) a pedagogy that incorporates traditional cultural characteristics and adult-child interactions (3) a pedagogy in which teaching strategies are congruent with traditional culture and ways of knowing (4) curriculum that is based on traditional culture and recognizes the importance of spirituality (5) strong Native community participation in educating children (6) knowledge of the social and political climate of the community.

Through a case study investigation of the challenges educators face in increasing Native American high school graduation rates, educators reported challenges in finding ways to engage Native youth in the traditional high school curriculum, making strong connections to other adult educators and other mentors in the community, and partnering with parents when trying to increase graduation rates (Wilcox, 2015). Educational adaptations that are necessary for Native students to achieve higher graduations rates include: prioritizing students' sense of worth in their communities, flexibility regarding absences, effective support that emphasize connecting to adults, and partnering with families and community members (Wilcox, 2015).

In contrast to poor graduation rates mentioned above, schools that incorporate Native culture and way of life into their curriculum have higher graduation rates. One example is Sequoyah Indian School in Tahlequah, Oklahoma has a 100% Native American population with students from 29 different tribes. Within the Sequoyah Indian School's philosophy is "Each student should be confident enough in their Native American heritage and educational background to pursue and participate successfully in social institutions," (Rose, 2015 p. 4). They have many notable achievements such as an

outstanding reading program, 15 Gate's Scholar graduates, dual enrollment program of high school and college, and a graduation rate at or near 100% (Rose, 2015). Another example, Chemawa Indian School in Oregon, is the longest running Native American boarding school with over 125 years of service. Although the original school was founded by the United States government to assimilate Native children, today it is run by the Bureau of Indian Education with the mission to provide opportunities for their students to achieve success through honoring unique tribal communities and striving for excellence in academia. With just under 450 students from 19 states, Chemawa has a minimal dropout rate that is nearly half of the National average (Office of the Inspector General, 2015).

The long-term broader impacts of successful programs, such as the aforementioned, could include increasing high school graduation rates and college enrollment of Native American youth, while ultimately contributing to reducing the physical and mental health disparities faced by Native Americans. There are a small number of school-based, full academic year, culturally based programs but short-term programs that can be accessed by youth from any Native community has yet to be found in the literature. The current study aims to investigate a community based, inter-tribal, academic-oriented intervention while focusing on the cultural identity, self-esteem, and academic optimism of Native American youth.

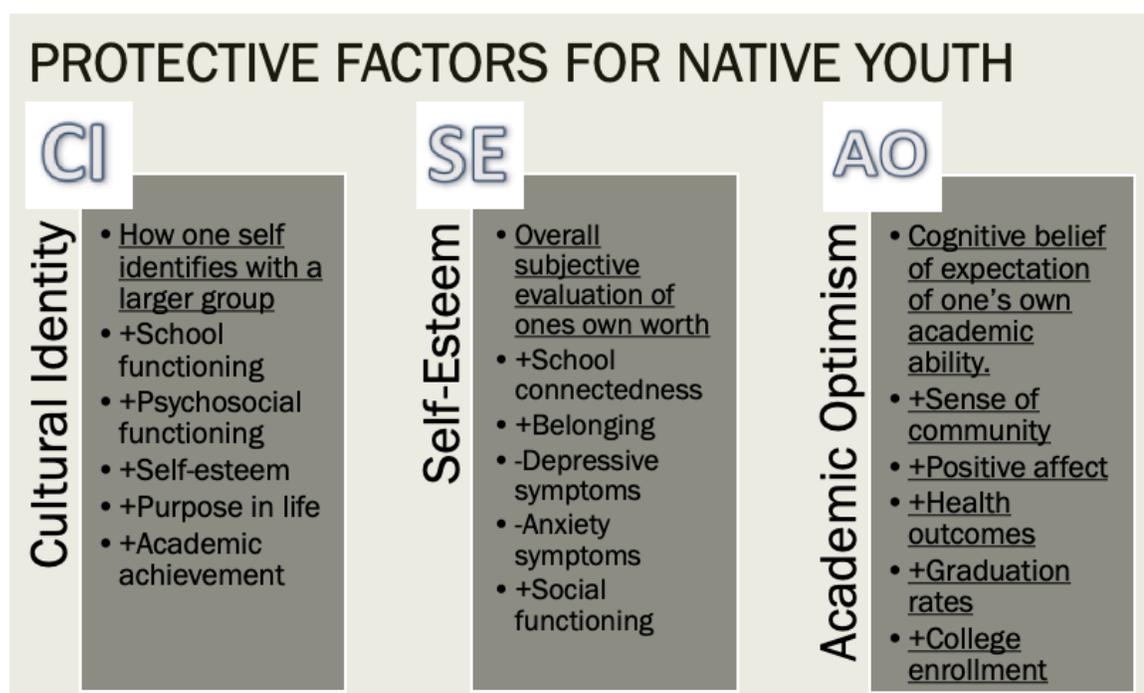
Protective Factors

Protective factors are aspects that increase the likelihood of positive behaviors in life and also help moderate negative life experiences (Jessor, Turbin, & Costa, 1998). Protective factors are particularly important for Native American youth due to their

ability to buffer the association between ethnic discrimination and developmental outcomes (Neblett, Rivas-Drake, & Umaña-Taylor, 2012). For this study, three particular protective factors were investigated; cultural identity, self-esteem, and academic optimism (see Figure 2). These protective factors were chosen because of their relationship with Positive Youth Development, Culturally Based Education, and the objective of the program evaluation.

Figure 2

Protective Factors for Native Youth



Cultural Identity

One of the richest aspects of any individual and community is the culture that is developed through its history. Culture represents a completeness of being or the integrated pattern of thoughts, actions, communications, values, and customs necessary to the establishment of a social group (National Association of Social Workers, 2015).

Smith-Maddox (1998) combines a variety of definitions from top researchers to form a

unique conception of culture. He adds that culture is the acquired knowledge people use to interpret experiences and attitudes, beliefs, values, and ways in which they generate behaviors and interact within the world.

Throughout the U.S., there are many cultural, linguistic, and religious differences among Native American tribes. There are 5.2 million people who identify as Native American or Alaska Native and nearly 600 federally recognized tribes (National Conference of State Legislatures, 2018; Norris, Vines, & Hoeffel, 2012). Despite the array of differences among tribes, Native Americans share many general beliefs and practices such as the idea of health as the balance of physical, mental, emotional, and spiritual elements (Lefler, 2009; Swinomish Tribal Mental Health Project, 2002). Native American communities utilize cultural strengths to help promote health and wellness of their members (Kenyon & Hanson, 2012). Native children hold a special and sacred role in tribal communities and are said to be the center of well-being for the entire community. Within these sacred roles comes the contribution and sense of belonging to their tribe (Garrett et al., 2014).

The formation of one's identity is a key developmental task of adolescents of color (Rivas-Drake et al., 2014). The construction of one's cultural/ethnic identity, socioeconomic status, religion, and gender are all processes that youth undergo (Yetter & Foutch, 2013). Cultural identity is much like ethnic identity and refers to how one self-identifies with a larger cultural group, including self-perception, interaction, and belonging within the group (Smokowski, Evans, Cotter, & Webber, 2014). Bruner (2003) an American cognitive psychologist and pioneer of educational psychology stated that

...culture shapes mind, ... it provides us with the tool kit by which we construct not only our worlds but our very conception of ourselves and our powers. You cannot understand mental activity unless you take into account the cultural setting and its resources, the very things that give mind its shape and scope. Learning, remembering, talking, imagining: all of them are made possible by participating in a culture (p. X-XI).

In particular, cultural identity of Native Americans is most often rooted in tribal membership, culture, and community (Garrett et al., 2014). In the National Indian Education Study, over 18,000 students participated and less than 25% of Native American 4th and 8th graders reported having “a lot” of knowledge of Native culture or participation in cultural activities. Those who reported having more knowledge of their Native culture also reported that family members, school teachers, and tribal representatives/elders were the bearers of their known tribal knowledge (Ninneman, Deaton, & Francis-Begay, 2017).

Cultural identity has been empirically linked to adolescent psychosocial and school functioning for Native American youth (M. D. Jones & Galliher, 2007). In particular, within a study conducted with 137 Navajo students, students who had a more positively achieved cultural identity had more positive functioning and better adjustment factors (M. D. Jones & Galliher, 2007). Several studies have linked a stronger connection of ethnic identity in Native Americans and ethnic minorities to higher levels of academic achievement and higher levels of self-esteem, self-confidence, and purpose in life (Martinez & Dukes, 1997; Spencer, Noll, Stoltzfus, & Harpalani, 2001). The importance of cultural identity and ethnic pride may serve as a protective factor for the generations of

Native Americans who have experienced historical adverse circumstances. In addition, the protective factor of cultural identity may serve to bond many Native Americans together and creates a foundation for identity development (Smokowski et al., 2014).

Self-Esteem

As mentioned above, self-esteem is related to cultural identity (Martinez & Dukes, 1997; Spencer et al., 2001). Self-esteem refers to a person's overall subjective evaluation of their own worth (Rosenberg, 1965). Self-esteem is also related to school connectedness and feelings of being respected, belonging, and comfort with one's sense of self and one of the strongest predictors of school connectedness for youth (Millings, Buck, Montgomery, Spears, & Stallard, 2012).

Self-esteem has been inversely associated with depressive symptoms and low levels of self-esteem often co-occur with increased depressive symptoms (Derdikman-Eiron et al., 2011; Glendinning, 1998; Millings et al., 2012). In a sample of 10,000 youth, Native American youth reported depressive symptoms at a higher rate than students from any other population (Saluja et al., 2004). In 2011 the Youth Risk Behavior Surveillance System survey collected by the CDC showed that 35.9% of Native youth reported feeling hopeless or sad almost every day for more than two weeks in the past year (Eaton et al., 2012). Ginsburg and colleagues found an inverse association between depressive symptoms and self-esteem with a sample of 53 Native American females (Ginsburg et al., 2008)

In a sample of 1,358 Native American (Lumbee) students, higher self-esteem was positively associated with lower levels of depressive and anxiety symptoms, fewer negative external behaviors, and achievement of higher future goals (Smokowski et al.,

2014). Within the same study, cultural identity and self-esteem had a positive association, as well as cultural identity and future optimism. Minority students who have a higher sense of cultural identity also have higher scores of self-evaluation, self-esteem, family relations, peer relations, and self-mastery (Kazarian & Boyadjian, 2008; Phinney, 1989; Phinney & Alipuria, 1990). Previous studies have found that there is a moderated relationship between cultural identity, self-esteem, and anxiety/depressive symptoms with Native American youth, such that increased cultural identity serves as a buffer to the negative impact of discrimination experiences on self-esteem (Galliher, Jones, & Dahl, 2011; Rivas-Drake et al., 2014; Smokowski et al., 2014). Galliher & Jones (2007) found that ethnic identity was positively associated with self-esteem, social functioning, and school belonging.

Academic Optimism

Academic optimism is the cognitive belief or expectation of one's own academic abilities. Academic optimism includes, academic achievement, engagement, attainment, and attitudes towards academic abilities. Academic optimism has been identified as a protective factor for ethnic minority adolescents (McCabe & Barnett, 2001; Rivas-Drake et al., 2014). Native American adolescents with higher levels of achievement status were also associated with the highest levels of sense of community and positive affect (Kenyon & Carter, 2011). One study of the incorporation of indigenous knowledge into the school system with Alaska Native youth showed that those who participated in the schools with the pedagogical practices had lower high school dropout rates and increased college enrollment rates (Demmert & Towner, 2003). The theory of possible-selves examines the importance that future optimism (including academic optimism) has on mental health

outcomes and provides the link between cognitions and motivation. Students who can picture themselves as potentially different selves in the future tend to have better health outcomes and vice versa (Markus & Nurius, 1986). Students who have low academic optimism are less likely to graduate from high school, less likely to pursue higher education, or even view academics as an option.

Current Study

There is a notable lack of research on Native American adolescents' cultural identity development, self-esteem, and academic success. However, evidence is beginning to emerge linking cultural identity to positive psychosocial outcomes among Native American adolescents. No investigations have included the possibility of self-esteem mediating the relationship between cultural identity and academic optimism. Potentially the mediator of self-esteem could have a direct implication on both of these variables and could be a key component for increasing graduation rates. The purpose of this research is to determine the relation between cultural identity, self-esteem, and academic optimism among Native students attending a culturally-based, academically-oriented intervention, Konaway Nika Tillicum, for Native American youth.

Konaway Nika Tillicum Native American Youth Academy

The 2018 Konaway Nika Tillicum vision statement is:

Through an intergenerational family model, Konaway Nika Tillicum is a culturally responsive academic program that empowers Native youth to access higher education and navigate educational systems, encourages self-determination, and strengthens critical thinking by deeply connecting them to a

community that values their aspirations and the resilience of our seven generations.

The academy is a seven-day summer camp at Southern Oregon University designed to mentor youth through high school and inspire them to go on to higher education. Students submit applications, letters of recommendation, and transcripts in the spring prior to the academy. Acceptance is based on students' completeness of their application, content of their application essay, and status of recommendation from their letter writer. Students and families are then given an acceptance packet by mail to complete their registration and provide them with information necessary to be prepared for camp (ex. what to pack, activities to be anticipated, medical questions). Prior to the start of the academy, senior counselors and staff are trained on the Universities' policies, Konaway rules and policies, preparing classes/activities, and establishing relationships with one another to enhance the cohesiveness of the camp. Students are assigned to a counselor by age-group and gender. Over 90% of Konaway counselors, staff, and instructors identify as Native American and many of them have previously been Konaway students.

Konaway uses traditional Native American interventions such as teaching in the oral tradition, teaching youth to traditionally bead and dance, and teaching respect and confidence. The academy consists of a broad range of exploration activities including cultural and academic lectures, cultural experiences, recreational activities, diverse classes, fine arts/theater arts training, Native American history, college preparatory courses, and learning to explore and succeed with their personal autonomy. See Figure 3 and 4 for a sample schedules of the summer academy. Konaway is funded through grants,

Aim 2: Determine if cultural identity, self-esteem, and academic optimism scores are predictive of GPA at baseline. We hypothesize that cultural identity, self-esteem, and academic optimism will be predictive of GPA.

Aim 3: Ascertain if attending a Native Youth Academy (intervention) increases cultural identity, self-esteem, and academic optimism. We hypothesize that scores for cultural identity, self-esteem, and academic optimism will increase from baseline to post-intervention.

Figure 4

Konaway Schedule 2018

Konaway Nika Tillicum 2018								
Saturday 7/7	Sunday 7/8	Monday 7/9	Tuesday 7/10	Wednesday 7/11	Thursday 7/12	Friday 7/13	Saturday 7/14	
AM Staff Prep Greensprings A	7:00 – 7:50 am BREAKFAST 7:50 – 8:00 am MORNING ANNOUNCEMENTS Lounge							
10:00 – 12:00 Student Check-in	8:00 am On Numbers	Class Period 1 8:10 – 9:20 am (Group A) Nurses Rock! – OHSU Staff, Britt Lab (Group B) History of the Nez Perce, Beagle, EP 254				Prep for "Dancing on the Bricks" at OSF	8:00 – 9:30 am Students Check-out of Dorms	
12:00 – 1:00 Student Lunch	Grizzly Peak Hike (sack lunch) 1:00 return	Class Period 2 9:30 – 11:20 am (Group A) Native Studies Colley, Taylor 107 (Group B) College Prep, Henderson, PC West (11 th -12 th graders) Mindfulness, Falske-Mendoza, Diversions (9 th -10 th graders)					10:00 – 12:00 Closing Ceremony Rogue River Room	
1:30 Living Group Meetings	2:00 Beading	Class Period 3 12:45 – 2:05 pm (Group A) Intergenerational Continuance, Worley, Britt 251 (Group B) Native Studies Colley, TA 107				11:00 – 1:00 Dancing on the Bricks	Contact Info: SOU Pre-College Office: M-F 8am-5pm 541-552-6452 Evenings/Weekends 541-261-9603 Konaway Office: 541-552-8991	
3:00-4:30 Introduction Meese		Class Period 4 2:15 – 3:35 pm (Group A) Mindfulness, Falske-Mendoza, Diversions (Group B) Intergenerational Continuance, Worley, Britt 251				Lunch in Lithia Park		
4:30 -5:30 Campus Tour		Class Period 5 3:45-5:15 pm (Group TBA) Rapping, Mista' Chief, Longhouse (Group TBA) Theatre, Brent Florendo, Diversions (Group TBA) Rock Your Mocs, Chava Florendo, TA 131						
5:30 – 6:30 pm DINNER at The Hawk				5:30-6:00 OSF Prologue Meese Aud.	5:00 – 5:50 pm DINNER at The Hawk			
6:45 pm LIVING GROUP MEETING				6:00-7:00 Dinner at The Hawk				
Icebreakers Longhouse 8:30 pm	7:00-7:45 Group Photos with t-shirts 7:45-9:00 Longhouse	7:00-9:00 Longhouse Night	7:00-9:00 Longhouse Night	7:00-9:00 Longhouse Night	6:00 pm On Numbers: 6:15 bus departs OSF Play "Romeo & Juliet"	7:00-9:00 Longhouse Night (necklaces)		
9:30 pm STUDENTS IN ROOMS – 10:00 pm LIGHTS OUT								

CHAPTER III

METHOD

Participants

The current study uses the data collected over two consecutive summers of the Konaway program. There were 61 total participants (summer 1 $n=35$, summer 2 $n=27$). The average year in school of participants was ninth grade ($M = 9.39$, $SD = 1.62$) with 6 in 7th, 18 in 8th, 10 in 9th, 13 in 10th, 4 in 11th, 11 in 12th. Participants age ranged from 11 to 18 years ($M = 14.27$; $SD = 1.7$). All participants identified as Native American or Alaska Native. Participants identified as being members of 38 different Native American Tribes with 47 % from the Pacific Northwest. Of the participants, 38% ($n=23$) identified as male and 62% ($n=38$) identified as female. Eighty-four percent of participants reside in the state of Oregon while 16% live outside of the state. The majority of the participants reported living outside of a reservation 88.7%, and 11.3% reported living within a reservation's territory. Participants came from a diverse range of living situations, 5% were in foster care at the time of attending the academy, 78.5% were living with a custodial parent, and 16.5% were living with a non-parental caregiver. Participant's mean grade point average (GPA) was a ($M = 3.13$, $SD = .60$). To be vigilant of participants identities, no other demographic information will be provided to secure their identity and participation.

As the percentage of missing at random data was very low, we used replacement for the average if at least 80% of the scale items were completed. Only one participant was missing more than 20% of one scale (SSP-F), resulting in pairwise deletion of the

one scale for one participant. We first compared demographics (age, grade, and GPA) along with baseline and post-intervention scales (MEIM, SES, and SSP-F) from both summer cohorts to determine if the groups differed significantly in anyway at either time point. The two groups only differed significantly on year in school. The average year/grade in school of students within the 2017 cohort was statistically significantly higher ($M=9.77$, $SD=1.70$) than the 2018 cohort's ($M=8.89$, $SD=1.40$), $t(60) = 2.89$, $p=.033$, but we did not see the difference of less than a single grade level enough to preclude further data testing. After determining that the groups did not appear to differ significantly on any other demographics or measures at either time point, the data from the two cohorts were combined to form our total sample ($N=61$) for analyses.

Human Subjects/Institutional Approvals

The data collection protocol proposal was approved through the Institutional Review Board (IRB) at Southern Oregon University, where Konaway is held, and at Utah State University, where the primary researcher is affiliated and where data analyses activities took place.

Survey Procedure

Parent informed consent and youth assent was obtained during the camp check-in process and prior to any data collection. Both parents and participants were informed verbally and in written form that their decision to participate in the study did not affect their ability to participate in the Konaway program. If parents did not want their student to participate in the study, students were told to continue with their camp check in process as normal. For those who participated, the surveys were implemented into the curriculum and scheduled during the camp hours. No compensation was provided to

students or parents. The baseline survey (demographics, MEIM, RSES and SSP-F) was administered on paper at the time of arrival while students were going through the check-in process. The post-intervention survey was administered online during the last full day students were attending the academy, consisting of the same measures as the pretest. The overall participation rate was 96.8% with two students either arriving late or leaving early.

Research Design

This research partnership was developed from a community-based participatory research framework. Historically researchers have approached Native communities with research questions and protocols already determined, an approach that is less than ideal and can result in harm or unethical data collection from the participants. Our research was organized from *The Guiding Principles for Engaging in Research with Native American Communities* (Straits, et al., 2012). The Southern Oregon University Native American community and people were the driving force of this research. All of the research issues were central to the community to assist in achieving further visions and goals for Konaway. Research was guided with the understanding that this community has the wisdom, knowledge, expertise, and experience that is relevant to the community research and consideration of the timeframe of research was given. An authentic relationship had prior been established between the researcher, the Konaway Academy, and Southern Oregon University. The researcher, Tamara Ellington is an alumna of Southern Oregon University and a long-time Konaway employee. This genuine relationship was based on developed mutual trust and respect to sustain a long-term commitment to the community. The research questions were established as a

collaborative effort of building on the hypothesized strengths of the academy while highlighting resiliency factors and positive youth development. Although the researcher is a Konaway employee, the researcher sought out to be objective as possible while only taking on the role of researcher and administrator during data collection years. Konaway founders and faculty were the bearers of all community traditions, values, methods, and knowledge provided in this document. The researcher acted as a community member and brought their expertise of academic research methods and process to build community capacity and to disseminate research. It is vital to acknowledge that every individual from the Konaway community has made important contributions to this research and the sustainability of this positive project outcome is attributed to the communities' efforts of survivance and resilience. The data will forever belong to the Konaway program as they were the collaborators and motivation for this project.

The statistical research design was a quasi-experimental within group design (pre/post) with the same measures implemented pre-intervention and post-intervention. A program evaluation design was used to examine the effects of the Konaway Nika Tillicum Native American Youth Academy on participants' cultural identity, self-esteem, and academic optimism.

Measures

Demographic information. The demographic survey collected information on age, gender, tribal affiliation, geographic location (on/off reservation; rural), grade point average, and household structure/living situation.

Academic Optimism. School Success Profile (SSP) Future Scale. The 12-item School Success Profile - Future Scale (Bowen, Rose, & Ware, 2006) was used to measure

academic optimism. The SSP was created in 1993 and has been administered tens of thousands of times since with well documented validity and reliability (Bowen et al., 2006). The SSP measure is designed as a youth self-report survey to measure attitudes and expectations of future success. The full SSP measures attitudes and perceptions about school, family, self, friends, neighborhood, wellbeing, and health. Examples of academic optimism items are: (a) When I think about my future I feel very positive. (b) I see myself accomplishing great things in life. Answers are evaluated on a 4-point Likert scale (strongly agree, agree, disagree, strongly disagree). The measure has been validated for Native American youth and is the most widely used school success measure. The Cronbach's alpha reliability from a study with 1,345 Native American youth was .95 (Smokowski et al., 2014). The current study Cronbach's alpha for baseline was .943 and for post-intervention was .949.

Self-Esteem. Rosenberg Self-Esteem Scale (**RSES**). The 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to measure self-esteem. The RSES is a global measure designed to be used with adolescents, containing both positively and negatively worded items. A Likert scale was used to assess the questions. Examples are: (a) I am able to do things as well as most other people; (b) I feel good about myself. Those with higher RSES scores are marked as having a higher sense of self-esteem. The measure has been used with Native American adolescents (M. D. Jones & Galliher, 2007; Smokowski et al., 2014). In multiple studies with Native youth, Cronbach's alphas were above .80 (M. D. Jones & Galliher, 2007; Smokowski et al., 2014). The current study Cronbach's alpha for baseline was .870 and for post-intervention was .843.

Cultural Identity. Cultural identity was assessed using two different measures. The first is the Multigroup Ethnic Identity Measure (**MEIM**). The 14-item MIEM (Phinney, 1992) adapted for Native Americans was used to measure cultural identity. The measure replaced the word 'ethnic' with 'Native American' to specifically measure the Native American identity. The revised MEIM is a globally used scale to measure ethnic identity with a combination of two scales. The seven-item affirmation/belonging scale measures commitment to their ethnic identity. The five-item scale measures their exploration of their ethnic heritage. Questions are answered on a 4-point Likert scale (1=strongly disagree; 4=strongly agree). Examples are: (a) I have a strong sense of belonging to my Native American community. (b) I have a strong attachment towards my Native American community. Due to these two subscales being so often related, we chose to analyze the total score. In multiple studies with Native youth Cronbach's alphas were above .80 (M. D. Jones & Galliher, 2007; Smokowski et al., 2014). One study showed the subscale of cultural identity exploration with Cronbach's alpha below .80 (M. D. Jones & Galliher, 2007). The current study Cronbach's alpha for baseline was .899 and for post-intervention was .892.

The second measure for cultural identity was a five-item cultural affinity scale (**CAS**; Zimmerman, Ramirez-Valles, Washienko, Walter, & Dyer, 1996). The CAS scale measures youths' pride and interest within their culture. The measure detailed questions of culture to specify Native American culture. The measure will continue to be referred to as 'Native cultural Affinity' or CAS throughout the document. Questions were: (a) How important is it to you to maintain your Indian identity, values, and practices? (b) How much do you know about your Native American culture? (c) How interested are you in

learning more about your Native American culture? (d) How different do you think Native American culture is from White culture? (e) I am proud to be Native American. Questions were answered on a 5-point Likert scale, 1 (very little) to 5 (a lot). The higher score, the higher the Native cultural affinity. The Cronbach's alpha for the original development of the enculturation with 120 Native youth was .70 (Zimmerman et al., 1996). In another study with 96 Native youth, the Cronbach's alpha was .66 (Newman, 2005). The current study's Cronbach's alpha for baseline was .512 and for post-intervention was .675. The Cronbach's alpha did not improve by deleting any single item. Due to the questionable reliability, we removed this scale from all further analyses.

Analytic Plan

For the current study, data was collected over two years (summer of 2017 and 2018). Descriptive analyses were conducted (frequency and percent, mean and standard deviation as appropriate) for each demographic variable. Individual measures (MEIM, RSES, SSP) were calculated by total score and mean scores.

Aim 1. Relation between cultural identity, self-esteem, and academic optimism.

Correlations were used to determine the relation between the four variables. Direct and indirect effects were tested.

Aim 2. Determine if academic optimism, cultural identity, and self-esteem scores are predictive of GPA. Multiple regression was used to determine which variables were predictive of GPA prior to Konaway Academy.

Aim 3. Determine if the Konaway academy improves measures of self-esteem, academic optimism, and cultural identity. A pre-intervention/post-intervention comparison was

made using dependent t-tests to compare the difference between pre-intervention/post-intervention scores for students before and after attending the Konaway academy.

CHAPTER IV

RESULTS

Aim 1. Relation between cultural identity, self-esteem, and academic optimism.

First, we assessed the four necessary assumptions for a Pearson's correlation with the requisite variables in our dataset: 1) all variables are continuous; 2) all data is matched by participant; 3) linearity was tested using scatterplots; and 4) no outliers were detected in the scatterplots. We ran Pearson's correlations on the baseline measures of cultural identity, self-esteem, and academic optimism to determine whether these variables appeared to be significantly associated with one another. Table 1 presents correlation of baseline measures.

Table 1

Pearson Correlations of Baseline Statistics

	MEIM	Self-Esteem
Cultural Identity (MEIM)	—	
Self-Esteem (SES)	.62**	—
Academic Optimism (SSP)	.35**	.51**

** Correlation is significant at the .01 level (2-tailed)

Self-esteem was significantly positively correlated to academic optimism ($r(60) = .507, p < .001$), indicating that individuals who reported higher self-esteem tended to report higher academic optimism. Self-esteem was significantly positively correlated with cultural identity (MEIM: $r(60) = .622, p < .001$) indicating that students who reported greater Native cultural identity and affinity tended to report higher levels of self-esteem.

Tests of indirect effects were conducted using the PROCESS macro in SPSS (Hayes, 2018). The PROCESS macro utilizes bootstrapping techniques and ordinary least squares regression to calculate direct effects of the independent variable (cultural identity) on the outcome variable (academic optimism), as well as the indirect effect of the IV through the mediator (self-esteem) on the outcome variable. Table 2 presents the results of the regression model evaluating self-esteem, cultural identity, academic optimism. Confidence intervals are presented for all direct and indirect effects.

Table 2

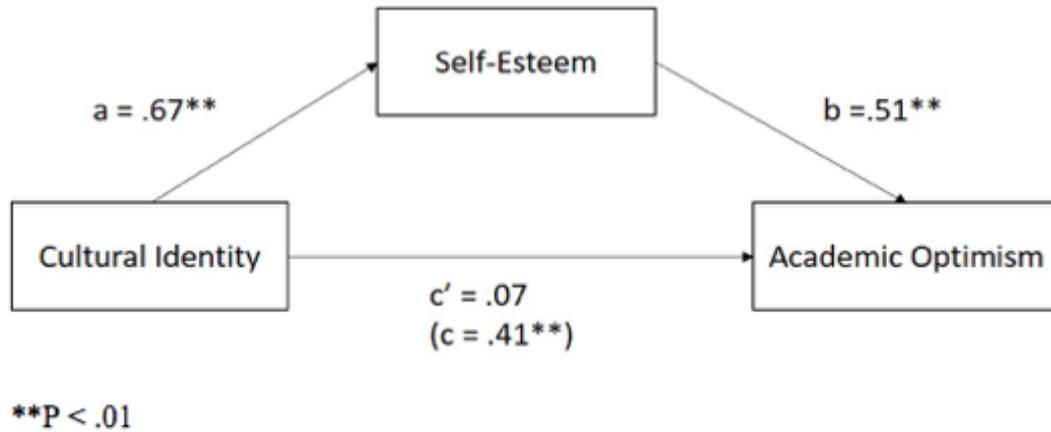
Direct and Indirect Effects of Cultural Identity on Academic Optimism

Dependent Variable	Effect	B	SE	t	p	LL CI	UL CI
Direct Effects							
Self-Esteem > Academic Optimism		.51	.16	3.28	0.002	0.2	0.82
Cultural Identity > Self-Esteem		.67	.11	5.99	<.001	0.45	0.89
Cultural Identity > Academic Optimism		.07	.17	.41	0.69	-0.27	0.41
Indirect Effects of Cultural Identity on Academic Optimism Through Self-Esteem							
		.41		.14		0.12	0.7

LLCI: Lower Level Confidence Interval; ULCI: Upper Level Confidence Interval

Analyses of direct effects of the bivariate level from cultural identity to academic optimism indicated that cultural identity has a direct relationship to academic optimism. The effect became nonsignificant when self-esteem was included in the regression model, indicating self-esteem indirectly filtered through the relationship of cultural identity and academic optimism. The direct relationship between self-esteem and academic optimism remained significant in the final model, Figure 5.

Figure 5

AIM 1 Mediation Model

Aim 2. Determine if academic optimism, cultural identity, and self-esteem scores are predictive of GPA.

We used block-wise entry selection then ran a multiple regression to determine if academic optimism, cultural identity, and self-esteem were predictive of GPA at baseline.

The multiple regression model was not statistically significant ($F(4,55)=.473, p =.755, \text{adj. } R^2 = .033$). None of the four variables added statistically significantly to the prediction ($p > .05$), indicating that these variables are not predictive of student's GPA.

Regression coefficients and standard errors can be found in Table 3.

Table 3

Linear Regression of Identity, Self-Esteem, and Academic Optimism on Participant GPA

<i>Source</i>	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Constant	3.74	.79		4.74	.00
Cultural Identity (MEIM)	.08	.26	.06	.29	.78
Self-Esteem (SES)	-.08	.23	-.06	-.33	.74
Academic Optimism (SSP)	.04	.18	.04	.23	.82

Aim 3. Determine if the Konaway academy improves measures of self-esteem, academic optimism, and cultural identity.

First, we assessed the four necessary assumptions for paired samples t-test: 1) dependent variables are continuous, 2) independent variable is pre-post data for each participant, thus paired sample; 3) no significant outliers in the difference scores, and 4) the difference scores appeared approximately normally distributed. Paired samples t-tests were then conducted to determine whether significant changes occurred from pre- to post-intervention on student's self-reported levels of self-esteem, academic optimism, and cultural identity. Results in Table 4 indicate that all measures significantly improved from pre- to post-intervention.

Participant's cultural identity (MEIM) scores increased from baseline ($M = 4.15$, $SD = 0.46$) and post-intervention ($M = 4.38$, $SD = 0.44$), a statistically significant mean increase of 0.23 ($SE = .07$), $t(60) = 3.19$, $p = .002$, $d = .40$. Participants self-esteem scores increased from baseline ($M = 3.03$, $SD = 0.49$) to post-intervention ($M = 3.24$, $SD =$

0.49), a statistically significant mean increase of 0.21 ($SE = 0.08$), $t(60) = 2.531$, $p < .014$, $d = .33$. Participants academic optimism scores increased from baseline ($M = 3.28$, $SD = 0.53$) to post-intervention ($M = 3.62$, $SD = .42$), a statistically significant mean increase of 0.34 ($SE = .08$), $t(60) = 4.33$, $p = .000$, $d = .56$.

Table 4

Descriptive Statistics and t-tests

Variable	Pre-Intervention		Post-Intervention		<i>t</i>	<i>df</i>	<i>p</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Cultural Identity (MEIM)	4.15	.46	4.38	.44	3.20	60	.002
Self-Esteem (SES)	3.03	.49	3.24	.50	2.53	60	.014
Academic Optimism (SSP)	3.28	.53	3.62	.42	4.33	59	.000

We also examined changes on each measure within only males ($n=23$) and only females ($n=38$) to identify any potential differences based on intervention changes between groups. Based on the small sample size, we used a 90% confidence interval because we hypothesized a specific direction of change. All measures significantly improved from baseline to post-intervention for both males and females. Males' average scores significantly increased on the measure of cultural identity ($t(22) = 1.72$, $p = .09$, $d = .49$). Females reported significant increases on the MEIM: $t(37) = 2.76$, $p = .009$, $d = .59$). Changes in self-esteem remained significant when examined within each gender independently (Males: $t(22) = 1.69$, $p = .10$, $d = .45$, Females: $t(37) = 1.86$, $p = .070$, $d = .39$), as did changes in academic optimism (Males: $t(22) = 2.14$, $p = .044$, $d = .59$),

Females: $t(37) = 3.80, p = .001, d = .77$) indicating that from pre- to post-intervention, both males' and females' levels of self-esteem and academic optimism significantly increased.

CHAPTER V

DISCUSSION

Extant research has highlighted the importance of education on the lives of adolescents in the United States. Currently there is a severe lack of understanding in the underlying factors related to Native American high school graduation rates. Education has been deemed a protective factor, especially for adolescents of color and Native American youth. With the disheartening statistics Native American youth are faced with, successfully completing their k-12 education and progressing on to higher education can be one of the greatest variables to increasing quality of life. However, the question remains of what variables assist in promoting success for Native youth in education systems. The current research helps to determine some of those underlying psychosocial influences and tests whether the Konaway program is effective for improving self-esteem, academic optimism, and cultural identity. Our findings provide evidence of identifying variables that may attribute to the educational success of Native students. Although limited research has considered the way in which variables influence education outcomes for Native American youth, this research addresses the gap and important protective factors--cultural identity, self-esteem, academic optimism as well as which mechanisms within intervention are most salient.

Our first hypothesis regarding the relation between cultural identity, self-esteem, and academic optimism was supported. These findings extend the extant literature and aid the limited research with Native American youth. Cultural identity also had a positive association to self-esteem for participants. The relationship between cultural identity and self-esteem was the strongest relationship of all variables measured. The

finding is consistent with earlier research (Jones, Galliher, 2007) that ethnic identity had a positive association with self-esteem for Navajo youth. These findings suggest that for youth who bolster a stronger connection to their tribal community, also fuel their self-esteem through this salient affiliation. Galliher et al. (2011) research findings suggest Navajo adolescents with stronger ethnic identity have less adverse reactions and internalization of discrimination. Suggesting that self-esteem is a protective factor against discrimination and the ability to identify positively with one's own cultural group. Thus, self-esteem potentiates cultural identity and those who view themselves favorably also see a stronger connection to their community and cultural self.

For the positive association of cultural identity on academic optimism, the finding is consistent with previous literature suggesting ethnic identity was associated with future academic orientation for African American and Lumbee Indian adolescents (Kerpelman, Eryigit, & Stephens, 2008; Smokowski et al., 2014). The current study expands the research base to include Native American youth from various tribes.

Native youth who are developing a cultural identity typically are spending more time with role models and those role models are typically elders of their family or tribe. The relationship to role models gives youth a sense of history, community, culture, family, and spirituality. Even though the role model relationship is common for all adolescents, it is even more salient for minority cultural groups to orient youth to the awareness and future of the entire community (Smokowski et al., 2014). The theory of possible selves allows youth to separate their current selves/community and allows them to create hopes, fears, and fantasies for their future selves (Markus & Nurius, 1986).

Youth with a higher sense of need of their communities have increased positive outlook for their future.

As for the positive relationship between self-esteem and academic optimism, the relationship supports prior research suggesting that students of color who report having teachers who believe in them are more academically successful (Cherng, 2017). Research findings support the relationship of self-esteem and low-mood being inversely related to school connectedness (Millings et al., 2012). In the same study, research findings suggested that the variance attributed to school connectedness was actually accounted for by self-esteem. Self-esteem was found to be a stronger protective factor than academic optimism but was inversely related to depressive and anxiety symptoms (Smokowski et al., 2014). These findings suggest that at the intervention level, increasing the protective factor of self-esteem can, in turn, increase a student's academic future optimism and overall academic success.

Interestingly, upon adding self-esteem into our model of cultural identity predicting academic optimism, cultural identity was no longer a significant predictor of academic optimism. However, the results of the direct effects within the model indicated that cultural identity was a significant predictor of self-esteem (the 'a-path') and that self-esteem was a significant predictor of academic optimism (the 'b-path'). Upon controlling for the effects of self-esteem, the direct effect of cultural identity on academic optimism (the c' path) was no longer significant, Figure 5. Further, this model accounted for approximately 26% of the variance in academic optimism, providing support for the hypothesis that the influence of cultural identity on academic optimism appears to be funneled through self-esteem. In other words, the results of our study suggest that

programs seeking to capitalize on the benefits of one's cultural community to promote academic optimism and success such as Konaway, may achieve greater impacts by incorporating program aspects directly seeking to increase participant's self-esteem. Gaining insight into specific intervention components targeting self-esteem from previous literature is likely to be a beneficial first step. Additionally, continued research examining the relationship, and the impacts of directly targeting self-esteem during these programs on a participant's academic optimism and achievement is needed to further support this suggestion.

Our second hypothesis that cultural identity, self-esteem, and academic optimism would be predictive of GPA was not supported, as none of the variables were related to GPA. We see one major flaw with the way society measures GPA and that is the history that an overall GPA carries with it. Additionally, prior research on the retention of low-income and minority students suggests that minority students earn lower GPAs than White students and students of higher socioeconomic status (Chen, 2005). Cherng (2017) suggests that although there are mixed findings on whether teachers' perceptions of students' abilities are influenced by their race/ethnicity, less positive perceptions of minority populations exacerbate long-standing social inequalities. These less positive perceptions can be explained through institutional racism, prejudice, and subconscious bias. Since GPA is so heavily influenced by the impact of individual teacher evaluation, GPA is not an ideal measure of minority student's academic performance and therefore may be the reasoning for the lack of predictability. The explanation also helps resolve previous research by Jones and Galliher (2007) that found higher scores on the

exploration of the MEIM were associated with better psychosocial adjustment but with lower grade point averages for Native youth.

Our third hypothesis, attending Konaway will increase participants' cultural identity, self-esteem and academic optimism was fully supported. All measures increased from baseline to post-intervention. These findings confirm previous research of effectiveness of culturally based education interventions and positive youth development models. The research suggests that the mission of the Konaway program; to empower youth, encourage self-determination, strengthen critical thinking, instill resilience, and connect them to a cultural education community is effective at increasing self-esteem, academic optimism, and cultural identity of their youth participants.

The study's findings should be understood with attention to the specific limitations. Situational factors such as students' knowledge of such a program may place them in a different educational experience than the general Native American youth population and thus differing demographic or baseline characteristics. We were also cognizant of repeated testing (testing effects) possibly leading to scores falling toward the middle of the scale (regression toward the mean) the second time the measures were taken (post-intervention). Testing effects did not seem to be an issue in the current study. An additional limitation is the untested predictability of academic optimism on graduation rates and how long participants self-esteem, academic optimism, and cultural identity remain increased after leaving the academy. Lastly, it is important to acknowledge the chance that other unmeasured variables could be attributing to change that occurred during the intervention. One particular strength of the study is the generalizability of inter-tribal Native American youth. Most research studies examine one

tribal population and there is a severe lack of generalizability among tribes. Since the study incorporates such a diverse population of tribal representation, these findings are more generalizable to the inter-tribal Native American youth population.

There are a number of actions that need to be taken to continue to improve the quality of the research on effective culturally based education programs and positive youth development models for Native American youth. First, it is encouraged that more studies are conducted and more outcomes are measured for culturally based education programs that are already established. The concept of academic optimism was measured in the short-term for these participants but it is suggested that longitudinal research follow with measuring graduation rates and college enrollment of students. Both qualitative and quantitative research approaches are in need for these programs. Qualitative research of such programs helps to explain the intervention and tell the story of how it did or did not work. Demmert and Towner (2003) suggest general recommendations for further culturally based education research including (1) carefully defining culturally based education interventions (2) target student learning as the primary outcome variable (3) include estimates of effect size and (4) design research with an adequate comparative base.

This study examined the influence the Konaway Nikka Tillicum Native American Youth Academy has on Native American youth participant's protective factors (self-esteem, academic optimism, and cultural identity). Two theory driven pathways of positive youth development and culturally based education were maximized to fit this culturally responsive program evaluation. Our analytic model supports the intervention that promotes these protective factors, which have a strong combined impact on Native

American youth quality of life. Native American youth self-esteem was a key mediator, linking cultural identity to academic optimism. All measures of youth's protective factors increased significantly from baseline to post-intervention. These findings contribute to the literature of effective culturally based interventions as well as the positive youth development of Native American youth.

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