American Indian Women’s Health Perceptions and Health Promotion Behaviors

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UNIVERSITY OF SAN DIEGO
Hahn School of Nursing and Health Science
DOCTOR OF PHILOSOPHY IN NURSING

American Indian Women’s Health Perceptions and Health Promotion Behaviors

by

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Abstract

**Background**: Most problems affecting the health of American Indian women are related to lifestyles and health-related behaviors (Carter, Morse, Giruad, & Driskell, 2008; Linsley, Kane, & Owen, 2011). Understanding health promotion behaviors could decrease or prevent a number of chronic diseases that afflict the American Indian population; however, little is known about how American Indian women perceive illness, how they promote their health within the context of their culture, and the barriers they face.

**Purpose**: This study was designed to develop knowledge about the health perceptions and health promoting behaviors of American Indian women residing within the Chickasaw Nation boundaries in Oklahoma.

**Design and Methods**: Grounded theory was used to generate a conceptual model that advances understanding of American Indian women’s health perceptions and health promoting behaviors. Focus group interviews were conducted with registered American Indian women residing within the Chickasaw Nation boundaries in Oklahoma to address their definitions of health, efforts to promote health, and barriers to health promotion.

**Data Analysis**: Audio-recorded focus group interviews were transcribed verbatim and analyzed according to the methodologies of Glaser and Strauss (1967) using comparative analysis.
**Results:** Thirty-three participants from five tribes took part in one of five focus groups. Participants identified eight major themes that influenced health and their health promoting behaviors. Themes included definitions of health and not health, contributors to poor health, strategies to promote health, health promotion support, motivation for health promotion, barriers to health promotion, and changes that would promote health. The resulting model reflects the strategies used and barriers that American Indian women face when promoting their health.

**Conclusions:** Understanding health promotion behaviors in American Indian women could influence health-promoting behaviors and decrease chronic disease prevalence in the American Indian population. The influence of social determinants of health and conditions of social support needs to be further examined in this heterogeneous group. The focus groups identified a need for greater health-related knowledge. Further research on effective family health education programs in this population is needed, as is similar research with other tribes.
Dedication

This dissertation is dedicated to several individuals who have influenced me to always be the best I can be. Dr. Mary Jo Clark has been a great inspiration since 1993. She has been an incredible mentor over the last 3 years and has definitely taught me how to write, which has not been an easy task. She epitomizes the definition of a great teacher, always making me think, not just teaching me the process, but involving me in the process. I wish her many happy years as she retires in 2015. As for my family, Gary, Delaney, and Noah, you have always been a source of strength and support, even with the distractions and interruptions of “needing me”. Thank you all for loving me unconditionally. I would not have succeeded without you!

To the women who participated in my focus groups; you opened my eyes and reminded me about what is really important in life. Without you this study would not have been possible. I thank you from the bottom of my heart.
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Chapter 1
Introduction

The goals of “Healthy People 2020” are to achieve health equity, eliminate disparities, and improve the health of vulnerable populations. These vulnerable groups experience a variety of determinants that result in health disparities, including race, ethnicity, sex, age, disability, socioeconomic status, and geographic location (Centers for Disease Control and Prevention [CDC], 2013a). The achievement of health equity has been at the forefront of “Healthy People” since 2000; however, disparities continue to exist among vulnerable populations. American Indians are above the national average for conditions such as chronic diseases, disabilities, and unmet healthcare needs (Weitz, 2013). Furthermore, this population is finally being counted on census forms, and identified on hospital intake forms and death certificates, which could possibly increase the prevalence rates for chronic diseases identified among this ethnic group.

There are an estimated 5.2 million American Indian and Alaska Natives (AI/AN) in the United States, 2.2 million living on reservations and 4 million living in metropolitan and urban areas (U.S. Census Bureau, 2012). There are 566 federally recognized tribes and more than 100 state-recognized tribes that receive federal assistance for health and educational services through the Indian Health Service (IHS), (CDC, 2013b). The IHS has indicated cultural barriers prevent AI/ANs from receiving quality healthcare. American Indians are extremely heterogeneous, reflecting differences
in geographic location, urban versus rural living and reservation versus non-reservation residence, tribal affiliation, and culture. Attention must be given to the cultural views of this ethnic population to promote better health outcomes, which may reduce healthcare costs.

Healthcare services must be respectful of health beliefs, practices, and cultural healing and health promotion belief systems. Understanding how people make decisions about their health and illness and the actions they take to address health problems is critical to the future health and wellbeing of those residing in a given culture (Spector, 2012). Wellness is more than just the absence of disease, and when colonization reshaped and changed how decisions were made about health, an imbalance occurred in the cultural dimensions of the AI population (Anderson & Olsen, 2013). Moreover, American Indians believe in environmental interconnectivity, harmony, and balance in all parts of life—physical, mental, and emotional—to obtain optimal health (Hodge & Nandy, 2011).

**Background**

The trauma of colonization continues to affect the health of AI tribes, due to a multitude of federal policies that have permeated every aspect of native life, including education, self-governance, spirituality, and health and wellbeing (Weaver, 2009). The overall health of the AI/AN population has continued to decline over the decades. In particular, the contribution of cardiovascular disease (CVD) and associated risk factors such as diabetes, hypertension, and dyslipidemia, have increased morbidity and mortality in this population (Hutchinson & Shin, 2014).
Several studies have identified obesity as a causal factor in high rates of sleep apnea, diabetes, hypertension, and cardiovascular disease (Hodge & Kotkin-Jaszi, 2009; Hodge & Nandy, 2011; Rhoades & Weltry, 2007; Struthers, Baker, & Savik, 2006). Results of the Healthy Heart Study conducted from 1993 to 1999 among multiple AI/AN tribes concluded AI/AN populations are four times more likely to develop cardiovascular disease than other ethnic groups (Hutchinson & Shin, 2014; Struthers et al., 2006). American Indian women are 1.6 times more likely than males to become obese, thus increasing their risk for diabetes. Poor diet and sedentary lifestyles are two factors that place American Indians at risk for obesity (Brega et al., 2012).

Behavioral Risk Factor Surveillance System data collected from 1998 to 2000 included a relatively small number of AI annually, overall an average of 1.6% (1998), 1.5% (1999), and 2.0% (2000) of respondents self-identified as AI. This random digit-dialed telephone survey inquired about demographics and health behaviors related to causes of disability, smoking, obesity, no leisure time physical activity, and binge drinking. Statistical measures for the AI population were unadjusted prevalence estimates. Prevalence estimates and 95% confidence intervals were computed for all four health behaviors, and Z-tests were used to compare for age-related health conditions (Doshi & Jiles, 2006).

The results, compared against the “Healthy People 2010” (HP2010) goals, indicated AI women had a higher prevalence of smoking, 2.8 times greater than non-AI women. The prevalence of obesity was two times higher in the AI group, binge drinking 1.7 times higher, and the prevalence of no leisure time activity was 1.9 times higher in AI women than non-AI women. The limitations of the study included self-reporting,
potential for recall bias, and a tendency towards socially acceptable responses. Furthermore, approximately 11.9% of AI households did not have telephones compared to only 2.4% of households’ nationwide leading to sample bias. Sample size and lack of data on tribal affiliation and reservation residency status may have obscured the diversity of health risk behaviors among tribes (Doshi & Jiles, 2006).

A secondary analysis of the 2009 California Health Interview Survey targeted adults 60 years of age and older. Responses from 198 American Indians and 16,958 non-Indians were analyzed. Physical and mental health status, chronic diseases and comorbidity, disability, psychological distress, healthcare access, delayed care, and barriers to service were evaluated. Descriptive analyses, means, and standard deviations were used to assess characteristics of the population. Overall American Indians rated their health as poor, and had significantly higher rates of asthma, heart disease, and diabetes (p < .05) than non-AI respondents. Access to healthcare was comparable to non-Indians, however AIs had a greater number of ER visits. Lack of insurance was a cause for delay in seeking medical care and filling prescriptions for both groups (Kim & Bryant, 2012). In addition, other harmful health-related behaviors were contributors to poor health in this population.

Risky behaviors contribute to unhealthy lifestyles as well and have become an integral part of the AI/AN way of life. Smoking, increased alcohol consumption, and sexual activity are at the top of the list (Hodge, Cantrell-Geishirt, & Soeun, 2011). Furthermore, the centuries of personal loss, poverty, discrimination, and trauma have had a significant impact on the emotional, physical, and spiritual health of this population (Gray & Mays, 2010). Focusing on the aspect of health promotion rather than
a single problem may provide strategies for coping and beneficial change for this population.

**Significance**

Most published studies of the AI/AN population focus on causality of illness. Few studies were identified that addressed health promotion behaviors and perceptions of health. Some studies have included women only, with the majority including both men and women. Understanding health perceptions and health promoting behaviors could possibly help decrease or prevent many chronic diseases that afflict the AI/AN population. Little is known about how AI/AN women perceive illness, how they promote health within the context of their culture, and the barriers they face. While studies do exist, numerous gaps are identified, due to the heterogeneity of the population and the lack of generalizability of qualitative and quantitative studies. A study that explores health perceptions and health promotion behaviors among these women will add to the knowledge base to guide the practice of future nursing and allied healthcare providers.

**Purpose and Aims of the Study**

The purpose of this qualitative study was to identify the health perceptions and health promotion behaviors of American Indian Women within their cultural context. The specific aims were to: (a) determine how American Indian women define health; (b) identify what they do to promote health; and (c) explore perceived barriers to health promotion.

**Research Questions**

The related research questions addressed in the study were:
1. How do American Indian women define health and wellness?

2. What do American Indian women do to promote their health?

3. What positive and negative health-related behaviors do American Indian women engage in as children, adolescents, and adults?

4. What barriers do they face in promoting their health?

This study employed focus groups to explore health perceptions and health promotion behaviors among American Indian women. Understanding health disparities in this population requires in-depth social interactions. Group discussions served to stimulate debate, assist in the development of ideas, create solutions to problems, and identify issues not previously considered.

Summary

Gaining knowledge from group discussions will ensure better healthcare by promoting change in federal policies that effect healthcare and health equity for this vulnerable population. Creating an environment to foster social, physical, and emotional health will increase the healthy longevity of the population, thus allowing American Indians to live longer healthier lives, without disability, chronic diseases, and premature death. Studying health promotion behaviors and health perceptions will promote quality of life and healthy behaviors across all stages of life (Koh, & Piotrowski, 2011).
Chapter 2

Literature Review

This review of literature is divided into three parts. The first part will present the overall history of American Indians, specifically the Chickasaw Tribe. The second part will address health and culture, gender and culture, and health promotion and health-related behaviors. The third part will address prior studies related to health perceptions, health promotion behaviors, and barriers to healthcare among American Indians.

American Indian History

A brief review of the history of American Indian culture assists in understanding the complex health perceptions, beliefs, and practices that exist today. Leininger emphasized the importance of historical facts, events, and experiences of individuals and cultural groups over time in helping healthcare providers explain and interpret the cultural lifeways of the populations they serve (Leininger & McFarland, 2014).

American Indians (AIs), who originally called themselves Nations, had their first contact with Europeans in 1540; however, not until the 1800s did European colonization have a concerted impact on American Indian culture and ways of life. Many tribes suffered when the deluge of land grabbing by the U.S. federal government forced them off their lands. During the land purchase, the Indians were exploited and cheated (Gibson, 1971; McCarthy, 2004). Although the Indians attempted to seek justice due to misrepresentation of signed treaties, the reacquisition of their land was futile—every legal battle was lost.
Indians were forced to migrate west; many died of diseases brought from Europe and famine due to displacement from fertile lands and placement in encampments that later became reservations. The subsequent spread of smallpox, measles, whooping cough, influenza, tuberculosis, and pneumonia decimated the American Indian population. In addition to disease, the health status of Indians was threatened by bug-infested food supplies and unsanitary drinking water (Hodge, 2012).

In 1824, Congress established the Bureau of Indian Affairs (BIA) to oversee the land purchases, promote commerce, and assist in the “civilization” of this indigenous and vulnerable population. The BIA misappropriated funds, did little to educate this population as originally promised, allowed Indian tribes to live in poverty, and provided minimal healthcare using military physicians (McCarthy, 2004). The end of 1849 brought about a change for the BIA.

The newly created Department of the Interior took on the responsibility of overseeing the health, welfare, and education of the Indian population. Unfortunately, the American Indian population continued to receive inadequate care; poverty was rampant, and federally operated boarding schools were conceived. The Carlisle Indian School had been patterned after a military model, with the intention of promoting dominant European cultural values, style of dress, and the English language. Although enrollment was voluntary in the beginning, by 1890 attendance was coerced through threats of withholding rations and supplies and incarceration (McCarthy, 2004; Yellow Horse Brave Heart & DeBruyn, 1998). Many children were beaten for non-compliance, or died of disease and abuse, and some were never returned to their homes to receive cultural and traditional values. When these children became adults, they were ill-
prepared to raise their own children in a traditional American Indian context (Merriam, 1928; Yellow Horse Brave Heart & DeBruyn, 1998).

Government physicians who were stationed at military sites near reservations provided healthcare, and dubious procedures were practiced on Indians with impunity. In 1897, an outbreak of trachoma, an infectious eye disease, reached epidemic proportions on reservations. The Indian population was subjected to tarsectomies, a radical treatment consisting of eyelid removal. This extreme surgery continued until the 1930s when sulfa drugs were discovered. No other population received this type of disfiguring and untested surgery for trachoma (Hodge, 2012; Merriam, 1928). The American Indian population, which was once estimated to be in the millions, was reduced to a paltry 120,000 by the turn of the 20th century (Hodge, 2012; Yellow Horse Brave Heart & DeBruyn, 1998).

The Snyder Act of 1921 authorized Congress to task the BIA with the responsibility of administering care and assistance to Indians throughout the United States. The implementation of this act resulted in continued military care, boarding school education and abuse, and poverty, causing irreparable historical trauma (Grant, 2008; Hodge, 2012; Yellow Horse Brave Heart & DeBruyn, 1998). In 1948, the BIA was found negligent in its duties to provide sufficient healthcare and education to American Indians (Yellow Horse Brave Heart & DeBruyn, 1998). As a result, the Indian Health Service (IHS) was created in 1955 under the agency of the U.S. Public Health Service to ameliorate healthcare conditions and provide education services.

From the 1950s to early 1960s, the Voluntary Relocation Program was enacted,
and more than 100,000 American Indian men were moved to major urban areas to live and work. In these cities, American Indians faced racism and discrimination in housing and employment. This group of American Indians acquired second-class status similar to other ethnic minority groups. While most returned home to the reservations, some stayed and attempted acculturation, living in the ghettos and learning coping techniques to survive (Yellow Horse Brave Heart & DeBruyn, 1998). Abuse of American Indians and Alaska Natives continued, and in 1970s one of the most illegal and traumatizing assaults on this population occurred. The sterilization of Indian women was being performed in military hospitals. This unlawful practice was only one of many controversial issues that mistreated and stigmatized American Indians and Alaska Natives (Carpio, 2004).

The initiation of the Belmont Report in 1973 had little effect on quality of care delivered to the American Indians. From 1973 to 1976, American Indian females were targeted for sterilization due to their high birth rates compared to other populations. Physicians who worked at IHS facilities engaged in these involuntary sterilization activities. The general accounting office reported 3,406 American Indian females between the ages of 15 and 44 years were sterilized in four of the twelve IHS regions. These heinous acts were performed without the knowledge of, or consent to the procedure by, the women (Carpio, 2004).

Research exploitation continued into the 20th century. In 1990, the Havasupai Indian Tribe agreed to participate in a type 2 diabetes study through Arizona State University (ASU). Blood samples were drawn from Havasupai tribe members and taken to ASU without the knowledge of the tribe. The samples were then used in non-diabetes related studies, such as genetic schizophrenia and inbreeding. The samples were never
recovered, and in 2004 the Havasupai sued ASU. An out-of-court settlement was reached; however completed research studies remain in peer-reviewed journals (Couzin-Frankel, 2010).

American Indians, including the Chickasaw Nation, remain under the stewardship of the federal government for their healthcare. Historical trauma experienced by the AI population and the Chickasaws at the hands of the government has resulted in mistrust and continues to contribute to severe health disparities, poverty, and educational issues.

**Chickasaw Tribe History**

Before European colonization and government invasion, Chickasaw tribal living was simple and steeped in nature. Lineage was matriarchal, and status was through the mother’s clan; property and leadership passed through the maternal line. Religion played an integral part in cultural rituals, life cycles, and everyday activities. “Religion was contained in their deity concept, migration legend, and eschatology, consisting of the sun, clouds, sky, and he that lives in the sky” (Gibson, 1971, p.57). Religion explained life processes, birth, puberty, marriage, death, and natural phenomena. The relationship with nature, and religion permeated every aspect of life (Official Chickasaw Nation, 2014a). Health was a reflection of living in harmony with nature and the ability to survive under harsh conditions. The Chickasaws believed the body should be treated with respect, just as the earth should be treated with respect (Official Chickasaw Nation, 2014a; Gibson, 1971).

By 1830, the Chickasaw Nation ways of life were being severely altered by the United States government. The government began by appropriating 6,422,400 acres of
land belonging to the Chickasaws and Choctaws in the Mississippi River valley for $530,000. The monies that were collected on the sale of the land were to be held in a trust account for the tribe. In 1855, the Chickasaws paid $150,000 for land rights in the Choctaw territory. The Chickasaw Nation was established in the western portion of the Choctaw territory, and the Chickasaw drafted their own system of government with executive, legislative, and judicial branches. Very little change occurred until 1887 when the Santa Fe Railroad pushed through Indian country and brought drastic changes to the culture and ways of life (Official Chickasaw Nation, 2014a).

From 1906 until 1971, through federal legislation, the federal government appointed governors of the Chickasaw Nation. During this time, the Chickasaw people resisted assimilation programs that sought to change their social and cultural ways of life. In 1979, self-determination policies enacted by the Nixon Administration allowed the Chickasaw Nation to draft a new constitution with three branches of government and work towards self-sufficiency in providing for its people. From the 1980s to the present, the Nation has focused on building an economic system to sustain and support programs and employment services for the Chickasaw people (Official Chickasaw Nation, 2014b).

**The Chickasaw Nation in 2014**

Since 2010, the Chickasaw Nation has prospered economically through reinvesting in the local economy, opening a hotel and spa, a chocolatier retail shop, pharmacy, hospital, travel and gas stop, health clinics, apartments, casinos, and wellness centers. There are approximately 57,399 people living within 7,648 square miles of jurisdictional territory (Official Chickasaw Nation, 2014c). These tribe members have access to more than 20 health-related support programs.
Some of these programs require a physician’s authorization and might be difficult to access. The Diabetes Care Center program provides medical, educational, nutritional, and exercise services to those who qualify, and also provides additional services for diabetes prevention (Official Chickasaw Nation, 2014c). The IHS funds diabetes care and other programs; however, allocation of government funding for these programs is currently being threatened by policy changes (Capriccioso, 2014). Eliminating federally funded programs for this population may create further health disparities, poverty, and lack of educational resources for this federally recognized tribe.

Interestingly, a study completed in 2011 using social marketing principles to identify health and nutrition perspectives of Native American women living within the Chickasaw Nation reported concerns with health conditions related to diabetes (Parker & Hunter, 2011). Health promotion practice is not only concerned with the behaviors of individuals but also with the way the community is organized and those policies and organizational structures that underpin the whole community (Tones & Green, 2004). Understanding health promotion behaviors is dependent on cultural knowledge and provides the context for optimal healthcare.

**Culture, Health, and Illness**

The Merriam Webster dictionary (Culture, 2013) defined culture as the integrated pattern of human knowledge, belief, and behavior that depends on the capacity for learning and transmitting knowledge. Culture provides the context for all healthcare and social well-being throughout life; it is the mechanism through which individuals learn how to interact with one another, how to behave, how to deal with mortality, and how to take care of themselves (Schim & Doorenbos, 2010).
Understanding health and healthcare behaviors of individuals is dependent on cultural knowledge.

Cultural congruence is an effective interaction process between the individual client and healthcare provider in which the cultural beliefs, practices, and values of both individuals develop into a shared subjective meaning. Constant communication between the client and the healthcare provider occurs to maintain harmony or congruence and promotes cultural sensitivity in the healthcare setting (Rashed, 2013). Definitions of health and illness are influenced by the cultural backgrounds of both the healthcare provider and the client.

The health behaviors and practices that one employs to stay healthy are based on cultural beliefs (Spector, 2012). Interestingly, health refers to a state of well-being based on the cultural definition of what is valued and practiced, reflecting the ability of individuals to perform activities of daily living in a culturally meaningful and beneficial manner according to patterned lifeways (Leininger & McFarland, 2014). Culture can shape people’s beliefs about the causes of health and illness, influencing their decisions to seek medical care (Linsley, Kane, & Owen, 2011).

Illness is culturally defined and encompasses much more than physical symptoms or pain. Illness, for some people may mean being out of balance or harmony with the environment or nature (Anderson & Olson, 2013). How an individual defines illness is often based on cultural beliefs and informs perceptions of what is needed and decisions about why and when to seek healthcare. How people respond to stress and illness is influenced by cultural values, beliefs, social structure, family traditions, and their worldviews (Leininger & McFarland, 2014). Culture is universal and ubiquitous; it
varies between groups and individuals and may change over time through social, political, and environmental action. It is the close relationship between culture, the individual, and the community that explains the effect of health outcomes on the individual (Linsley et al., 2011).

**Gender and Health**

Sex and gender affect health status. Sex refers to the biological make-up of male and female based on chromosome assignment, hormones, and sexual characteristics. Gender refers to the categories of societal expectations regarding masculine and feminine behaviors. These societal categories of expectations vary across culture and time (Weitz, 2013). Gender differences are significant for women, usually resulting in inequality and discrimination. In most societies, men dominate the allocation of scarce resources, and this inequality has a major impact on women’s health. Notably, violence against women affects health and health behaviors. Women who are abused are less likely to obtain medical care. The Violence Against Women Act was passed in 1994 to protect women and their health against violent individuals. Awareness of abuse has helped women achieve better health outcomes.

Surprisingly, women live longer than men; however, this longevity is promoted by biology, not social structure or position. Women suffer from morbidities 50% more often than men and have a 20% greater risk of experiencing an acute medical condition. Hypertension, cancer, diabetes, and obesity are among the top conditions creating unfavorable health conditions women (Weitz, 2013).

These higher rates of chronic diseases cause urgent medical issues and additional medical visits. Women could be vulnerable to lack of access to care due to abuse,
transportation issues, poor insurance coverage, part time jobs in the workforce, and lower than average incomes. Paradoxically the initiation of the Affordable Health Care Act may pose an increased burden on this already at-risk group by imposing fines on those unable to afford healthcare insurance (Fitzgerald, Cohen, Hyams, Sullivan, & Johnson, 2014).

Gender-based inequity should be considered when addressing health promotion and health perceptions in women. Eliminating gender inequality as a barrier will promote better health outcomes. Promoting societal change to decrease gender inequities will benefit the health and well-being of future generations of women and encourage positive health practices.

**Defining Health Promotion**

When the Ottawa Charter for health promotion was first introduced by the World Health Organization (WHO), the overarching theme was “health for all”, and the definition of health promotion was to empower people to take responsibility for and improve their health (WHO, 2013). Currently, health promotion is defined as the art and science of helping people explore and discover optimal health. Moreover, it is important to achieve optimal health outcomes through motivation, education, and awareness, within an individual’s cultural context, environment, socioeconomic status, and emotional and intellectual capability (O'Donnell, 2009).
Health Behaviors

In the United States, health promotion focuses on behavior modification and the prevention of health conditions at the individual level, instead of evaluating and changing the societal factors that influence behavior and might have caused the health condition to occur (Clark, 2014; Tones & Green, 2004). Lack of attention to societal contributors has impeded efforts to prevent disease in the United States. Approximately 133 million Americans, or 1 in every 2 adults, live with a chronic disease, and chronic disease causes 7 in 10 deaths each year in the United States. In addition, 75% of healthcare costs result from chronic diseases (CDC, 2013a). Preventing chronic disease by eliminating the factors that influence unhealthy behaviors could lead to an overall decrease in healthcare costs, and thus healthcare funds could be utilized for health promotion care.

On average, American Indians are 1.5 times more likely than Caucasians to have heart disease and hypertension, maintain BMI’s > 30, and smoke. The likelihood of having diabetes is 2.3 times higher than among Caucasians (Hutchinson & Shin, 2014). Health promotion has been at the forefront of WHO since 1986, and “Healthy People” since 1990, yet vulnerable populations increasingly present with unhealthy behaviors and less than optimal health outcomes.

The most recently released U.S. set of national health objectives, “Healthy People 2020,” embraces a social determinants perspective on health. Furthermore, reinforcing this foundational measure emphasizes the need to consider that numerous social structures are integral to promoting health and achieving health equity for vulnerable populations (Koh & Piotrowski, 2011). Achieving this objective requires
further research about health perceptions, behaviors, and the barriers that plague the 
AI/AN population.

Health Perceptions, Behaviors, and Barriers in American Indian Research

Current research has identified the AI/AN population as being at extremely high risk for cardiovascular disease, obesity, hypertension, diabetes, alcoholism, and violence. Understanding the factors associated with health perceptions and health promotion behaviors is essential in reducing health inequities and creating effective interventions for this population embedded in a cultural context. Furthermore, current research continues to recognize the ongoing health disparities and barriers the AI/AN population faces in obtaining adequate healthcare.

Health perceptions. Two studies, conducted in 2008 and 2011, explored health behaviors and perceptions related to nutrition and diet in the AI population. The 2008 study utilized adult urban American Indians recruited from an urban Indian medical center in Lincoln, Nebraska, specifically members of the Omaha and Sioux tribes. A 38-item demographic questionnaire patterned after a national health survey was used to obtain demographic, anthropometric, and economic information. Additional questions were added regarding health history, alcohol consumption, food preferences and preparation, dietary habits, and nutrition knowledge. Perceptions of current health and attitudes towards dietary intake and its effects on health were measured using a 15-item, 5-point Likert-type scale. Results indicated the majority of the subjects did not complete high school, 97% had functioning kitchens, 34% used convenience foods (frozen meals, deli foods, and ready-to-eat meals), 77% ate fast foods one to three times a week, 33% were enrolled in food assistance programs, and 48% used tobacco. In addition, women
were less likely than men to consume alcohol (38% versus 93%), and men had a higher percentage of overweight (70%), than women (40%); however women had higher levels of obesity (47%) than men (18%). No significant differences were noted for tribal association, and the vast majority of the study population reported consuming more saturated fat than recommended by the Dietary Guidelines for Americans. The researchers hypothesized many of these health-influencing behaviors stemmed from the historic relocation of many native families when they were forced to modify their traditional diets and rely on military rations of white flour, lard, and baking powder to fry bread (Carter, Morse, Giraud, & Driskell, 2008). There were no limitations cited in the study, nor did the authors present any information on the validity and reliability of the psychometric tools used to collect the data.

A qualitative study done in 2011 used eight focus groups and four individual interviews to identify health and nutrition perspectives of AI women using a social marketing framework. Formative assessment aided in the understanding of the four principles of social marketing (product, price, place and promotion). The major theme identified for product was diabetes prevention. A preference for a family-based education program at times conducive to work schedules was suggested within the community of the Chickasaw Nation. The researchers stated additional research to explore the roles of tribal leaders and elders would be beneficial in diabetes prevention efforts. The limitations of the study were a low participation rate for two of the focus groups and the inability to generalize the findings due to cultural and regional differences from other tribes (Parker & Hunter, 2011).
A study examining predictors of wellness in American Indian adults (n= 457) used a modified Behavioral Risk Factor Surveillance System survey for data collection. This cross-sectional randomized household study was implemented at 13 rural California sites. Data analysis involved logistic regression, Chi Square, ANOVA, and Fisher exact tests to assess associations with self-reported wellness. Wellness was measured by the respondents’ answers to the following question; “Wellness includes feeling good and taking care of yourself physically, emotionally, mentally and spiritually, how would you rate your wellness?” The results were categorized into two response groups, (very good or poor). The average age of the participants was 44.5 years, and more than half (52.5%) were married. The mean annual income was $25,000, and 72.6% of the respondents reported their level of wellness as very good.

Wellness was associated with general well-being and being emotionally and spiritually in balance with the environment. Interestingly, the respondents reporting wellness as very good also reported negative health conditions such as diabetes, obesity, high-risk behaviors, history of abuse, and suicidal ideation (p> 0.05). The self-selection of the clinics, composition of the sample with a higher female response rate, bias in the survey method, and sample size were limitations of the study (Hodge & Nandy, 2011).

The researchers recommended culturally sensitive education for this population using talking circles, a traditional cultural practice.

**Health promotion behaviors.** The report “Improving Health Promotion in American Indians in the Midwestern United States” was published in 2012. The researchers identified little prior research exploring preferred sources of health information provided to patients during medical encounters. The purpose of the study
was to ascertain American Indians’ preferences for health information presentation prior to and during a medical visit.

The cross-sectional study used a community-based participatory research approach. The participants suggested the use of surveys during community events. The 30-minute self-administered survey was completed by 998 American Indians. Results indicated participants trusted health information from newspapers, magazines, and books and used these sources frequently, although the Internet was the most helpful medium for making health decisions (reported by 81% of participants). Family members (78%) and traditional healers (59%) were the most frequent sources for obtaining health information before, during, and after a medical appointment. In addition, healthcare providers (75%), pharmacists (67%), and tribal clinic providers (66%), were the first three most frequently chosen providers as sources of health information during medical encounters.

Overall, 56% of the participants were comfortable searching for health information; however, 46% of the participants agreed a significant amount of time and energy was expended in an effort to obtain health information. Only 54% of the participants stated the healthcare provider was open to discussing health information that was brought to the clinic. Finally, the researchers suggested educating physicians to accept patient participation in medical decisions. Discussing health information with patients may lead to better health outcomes and health promoting behaviors (Geana, Griener, & Cully, 2012). Understanding practice issues with American Indians from a cultural perspective is important, as culture influences what is perceived as a health problem and what is not.
Several studies have identified obesity as a causal factor for sleep apnea, diabetes, hypertension, and cardiovascular disease (Hodge et al., 2011; Hodge & Kotkin-Jaszi, 2009; Rhoades & Weltry, 2007). Results of the Healthy Heart Study conducted from 1993 to 1995 and again in 1997-1999 among multiple AI/AN tribes concluded AI/AN populations are four times more likely to develop cardiovascular disease than other ethnic groups. This longitudinal epidemiological study design consisted of personal interviews, physical examinations, laboratory testing, and blood pressure monitoring over 6 years to assess cardiovascular disease (CVD) and its risk factors in individuals over 45 years of age (n=4,549). The overall results of the study indicated smoking decreased in the cohort; however, increased prevalence for hypertension and diabetes continue in this age group. Furthermore, the study concluded CVD morbidity and mortality will likely increase in this aging population (Rhoades & Weltry, 2007). This study is generalizable to the AI population. A limitation of the study was the number of participants lost to follow-up.

The Inter-Tribal Heart Project examined 866 adult American Indian women from Minnesota and Wisconsin for CVD risk factors in 2006. This secondary analysis used risk factors identified by the American Heart Association as the framework. The research methods consisted of a 34-page survey, taking 1.5 hours to complete, and administered by trained staff. The average age in the study was 45.8 years, and reported annual income was $15,000 to $20,000. Nearly three fourths of the participants (72%) had graduated from high school, 62% were working, and 88% received healthcare from Indian Health Services. Eighteen percent of women self-reported CVD, and 98% had at least one risk factor (smoking, hypertension, excess weight, elevated cholesterol levels,
diabetes, or sedentary lifestyle). Smoking was the most common risk factor, reported by 65% of the women (Struthers et al., 2006). This study aligns with other CVD studies in the AI population, however the limitations included self-reported data collected at a single point in time.

A review of physical activity and Native Americans, including 28 quantitative, 4 qualitative, and 4 intervention studies, concluded little was known about physical activity (PA) levels among Native Americans. The results indicated that health/perceived health was negatively associated with PA. As body weight increased, PA decreased. No overall association was found between physical environment and PA, but social environment had a moderately strong correlation with PA. Finally, a correlation was found between psychosocial behavior and PA. The researchers emphasized there was little data to support the findings and correlations in American Indians (Coble & Rhodes, 2006).

Health barriers. The research article “Understanding Practice Issues with American Indians: Listening to Practitioner Voices” explored trends related to access to healthcare and education, urban and reservation experiences, traditional modes of healing, and responses to historical trauma and genocide. The authors identified four themes that emerged from the focus groups: contemporary racism, cultural genocide, cultural change and identity, and seeking affiliation (Nicotera, Walls, & Lucero, 2010).

Contemporary racism was defined as the intercultural relationships of racism that existed among participants, healthcare providers, and healthcare institutions. Cultural genocide was the experience of the atrocities committed against American Indian people in the United States by the European Americans as well as the psychological impact of
those experiences. Cultural change referred to the larger external societal shifts that have occurred and are having an impact on the American Indian population, and identity was defined as the internal process of developing a sense of self and the impact of societal and psychological processes and experiences. Seeking affiliation referred to two ways of belonging; one was finding a connection with AI culture and the other was seeking a sense of belonging to the mainstream “American” culture (Nicotera et al., 2010). This article demonstrated the importance of understanding the barriers that healthcare providers can face when caring for the AI population.

A more recent study used 14 focus groups (n=112) in an effort to determine perceived barriers the American Indian population faces in obtaining healthcare. A total of nine themes emerged regarding barriers to healthcare and adhering to medical advice. These themes included distance to healthcare facilities, absence of public transportation, embarrassment associated with receiving healthcare, difficulty relating to healthcare professionals, difficulty navigating the healthcare system, lack of awareness of available resources, and long waiting times, (Shah et al., 2014).

Distance to healthcare facilities included living in a rural environment with the nearest medical center approximately 100 miles away. Transportation emerged as a major barrier to obtaining healthcare; access to public transportation was minimal and few respondents had access to vehicles. Embarrassment associated with healthcare was based on programs focusing on a single condition (e.g., obesity) and being seen by friends in the same program, thereby creating stigma.

Difficulty relating to healthcare professionals due to perceived medical staff issues such as medical incompetence, personnel turnover, and lack of social courtesy,
was presented as a barrier for this AI population. Difficulty navigating the healthcare system, lack of awareness of available resources, and long waiting times were perceived as “no one cares”. Month long waiting lists, spending all day at the medical facility for one appointment, inability to schedule appointments to prevent diabetic retinopathy, limited technology at healthcare facilities, and staff lack of awareness of programs available to the tribe were perceived barriers (Shah et al., 2014).

Health promotion programs provided incentives, which were well received; however, continued participation was a major issue. After the incentive was received, participants did not attend. In summary, the study identified behavioral, socioeconomic, and cultural factors as contextual barriers to healthcare and the treatment of chronic diseases. Community-based health programs and policies should examine possible ways to minimize these barriers and their effects (Shah et al., 2014).

Conclusion

In summary, the heterogeneity of the American Indian population decreases the generalizability of study findings; however, results from several studies indicate this population is at high risk for CVD, diabetes, hypertension, obesity, and several other chronic diseases. Most of the studies were mixed gender, and did not focus solely on women. No studies focused on the health perceptions and health promoting behaviors of American Indian women. Attention must be given to the cultural views of this ethnic population. Healthcare services must be respectful of health beliefs, practices, cultural healing and health promotion belief systems, and social determinants of health.
Chapter 3
Methodology

The purpose of this qualitative study was to gain a better understanding of the health perceptions and health promotion behaviors of American Indian women using a grounded theory approach. Focus groups were the selected method for data collection in this well-defined population. This chapter addresses the research methodology, sampling plan (sample, sample size, setting), data collection methods, and procedures for data analysis. The protection of human subjects is also addressed.

Grounded Theory

Grounded theory (GT) was developed by Barney Glaser and Anselm Strauss in the 1960s. GT has evolved over time; however, the core principle remains the same insofar as GT is a systematic generation of theory derived from data collected by researchers. This inductive research technique uses constant comparisons and reflexive thought allowing for alternative perspectives rather than previously developed ideas (Holloway & Wheeler, 2010).

The theoretical framework for GT is based in symbolic interactionism (SI), which is a process of interactions that exist for human beings in a world of shared symbolic meanings. Specifically, GT and SI can be classified as the study of ontology, epistemology, and methodology.
Ontology refers to the nature of being and what humans can know about existence. Epistemology refers to the nature of the relationship between the knower and what can be known. Methodology refers to how the researcher can discover social experiences, how they are created, and how they give meaning to human life and interaction (Aldiabat & Navenec, 2011). Thus, the researcher and research participants are interactively linked in the mutual relationship of active participation in their situation and take into account each other’s actions, interpret them, and reorganize their own behavior related to the phenomena under study. Using grounded theory will help generate new knowledge and contribute to the discovery and development of a theory to improve the understanding of health perceptions and health related behaviors among American Indian women.

Focus Groups

The use of focus groups for research can be traced back to the early 1920s when Emory Bogardus used group interviews to study social psychological issues. Although focus groups were initially developed for academic research, they became synonymous with market research in the 1950s, slowly finding their way back into academic research in the 1980s. Specifically, focus groups have gained popularity in qualitative healthcare research in the last decade (Liamputtong, 2011).

Focus group research is beneficial when there is limited knowledge about the participants or phenomena of interest. The flexibility of this research method allows the researcher to obtain detailed information and knowledge from diverse groups and in diverse settings. This method provides insight into the differences and similarities of feelings, thoughts, understandings, perceptions, and impressions of the participants as
portrayed in their own words (Bourgeault, Dingwall, & DeVries, 2010). Focus group interviews allowed the researcher to uncover aspects of understanding that might otherwise be hidden in conventional or in-depth personal interviews. Giving participants a voice in the research process creates data from multiple voices.

Providing multiple lines of communication within the group allowed the researcher to explore the gap between what people say and what they actually do. Accessing different forms of communications that are used in everyday interactions such as joking, arguing, reminiscing about the past, and non-verbal gestures, provide the lived experiences, beliefs, attitudes, stories, and concerns of the group. Soliciting information in a focus group setting involves active questioning, active listening, and encouraging conversation in a non-judgmental environment (Bourgeault et al., 2010).

Equal power relations must exist between the researcher and participants in the focus group. The development of a permissive, non-threatening environment in a natural setting is optimal for a collective conversation to occur. The group must feel comfortable with sharing and discussing their beliefs and attitudes without fear of being ridiculed or judged (Liamputtong, 2011). Use of focus groups is recommended for cross-cultural research with ethnic minority groups (Bourgeault et al., 2010).

Focus groups have been used with the American Indian population to explore the sociocultural context of tobacco use to aid in developing a smoking cessation program (Grycznski & Feldman, 2010), explore binge drinking and drug use among adolescents (Tingey et al., 2012), discover how low income affects American Indians' perceptions of diabetes, and identify what healthcare improvements may be necessary for this population (Lautenschlager & Smith, 2006). In addition, focus groups have been used to
understand practice issues with American Indians, listening to practitioner voices, and learning how non-Indian practitioners can provide culturally appropriate care (Nicotera et al., 2010).

American Indians have been a marginalized group since colonization in the late 1700s. Establishing an equitable balance of power, or reducing the imbalance in the power relationship, allowed the researcher to gain theoretical perspectives on how American Indian women think, why they think the way they do, and the importance of health and health promoting behaviors in a focus group setting. This methodological approach contributed to fundamental theory and knowledge, which is congruent with grounded theory.

Research Procedure

This research explored the health perceptions and health promotion behaviors of American Indian women who resided within the Chickasaw Nation boundaries. The focus group meetings took place at three different locations to obtain a more representative sample. Convenience sampling was used to recruit participants. Those that met the inclusion criteria were given a written consent outlining the potential benefits and risks of the study.

Study population. American Indians maintain residence predominately in the United States. Currently there are an estimated 5.2 million American Indian and Alaska Natives (AI/AN) in the United States, 2.2 million living on reservations and 4 million in metropolitan and urban areas. There are 566 federally recognized tribes and more than 100 state-recognized tribes (Centers for Disease Control and Prevention [CDC], 2013b). The population for this study was women who resided within the Chickasaw
Nation boundaries. The 2010 census of the Chickasaw Nation reported 57,399 members living within the jurisdictional territory of 7,648 square miles encompassing 13 Oklahoma counties (Official Chickasaw Nation, 2014c). No previous studies were found examining the health perceptions and health promotion behaviors of American Indian women residing within the Chickasaw Nation boundaries.

**Setting.** The focus groups were held at three locations: the Artesian Hotel in Sulphur Oklahoma, the Women Infants and Children (WIC) Nutrition Center in Ardmore Oklahoma, and the WIC Nutrition Center in Ada Oklahoma. The Artesian Hotel is owned by the Chickasaw Nation and provides accommodations for conference events and meetings. The Ardmore and Ada WIC centers are community-based centers that provide health services to women, children, and infants who reside within the Chickasaw Nation boundaries.

**Sample selection.** The inclusion criteria for participants were: (a) females over 21 years of age, (b) able to understand and speak English, (c) a member of an American Indian tribe, (d) willing to meet in a focus group setting and be audio recorded. Participants were excluded if they were unable to communicate or speak with clarity or unable to hear.

**Sample recruitment.** Convenience sampling was used to recruit interested participants. Flyers were posted throughout the community, in the health clinics at the check-in desk and posted in the exam rooms, wellness centers, and research center, and posted on the Chickasaw Facebook page. The flyers (Appendix A) included the investigator’s name and contact information, research purpose and procedure, eligibility requirements, and required time commitment for interested participants. In addition, the
The recruiter attended the Chickasaw Festival on September 27, 2014, and handed out flyers to women who were interested. Participants contacted me or the local Office of Epidemiology and their names were placed on a participant list. Dates for the focus groups were provided to the participants. Participant recruitment was exceptional, and the researcher did not have to consult with the Department of Epidemiology for additional recruiting strategies.

**Sample size.** The goal of the study was to describe and gain an understanding of health and health promotion behaviors among American women who resided within the Chickasaw Nation boundaries, but not to generalize findings to other populations or tribes. Participant recruitment was estimated at 4-6 focus groups or until data saturation had been reached. Access to participants was obtained with the help of two community liaisons. If an individual was willing to participate, preferred times, and days of the week for focus group participation were identified. Reminder notifications for the focus groups were provided 24 hours before each meeting. The anticipated target size for each focus group was 6-8 participants.

**Protection of Human Subjects**

**Informed consent.** IRB approval was obtained from the Chickasaw Nation and the University of San Diego prior to initiation of data collection. Each potential participant received a written consent form (Appendix B) outlining the benefits and potential risks of the study. Participants were informed that the study explored health perceptions and health promotion behaviors in AI/AN women and involved voluntary participation in a focus group for 60-90 minutes, with a potential subsequent follow-up to review the initial data collected. Participants were told they did not have to respond
to a question if they chose not to do so. In addition, the participants were informed they could stop or withdraw from the study at any time for any reason. Prior to signing the consent form, participants were given the opportunity to ask about the research and have their questions answered. Fictitious names were used when reporting the data. Each group was informed that privileged information could not be shared after the group meetings. Data will be kept in a locked safe and will be destroyed after 5 years from the date of the study. The names of the participants will be kept separate from the data in a secure location.

**Risks.** There was a possibility of minimal risk as a participant in the study. Speaking about health topics that have been previously ignored could create emotional distress. If a participant required assistance, referral resources were available. No participants required referral assistance during or after the focus group meetings.

**Benefits.** There were no immediate benefits to the participants; however, discussion of health perceptions and health promotion behaviors may have encouraged further discussion or action after the study. Some participants may have gained a better understanding of their own health perceptions and health promotion behaviors.

**Subject compensation.** A $35 dollar Walmart gift card was given to the participants whether or not they completed the entire session.

**Data collection.** The focus group discussions took place in Ada and Ardmore at the WIC Nutrition Centers and the Artesian Hotel in Sulphur. Refreshments were served. Focus groups consisted of 5-8 participants. Details of the study including purpose, process, and measures to secure confidentiality were shared at the beginning of each 60-90 minute focus group. A demographic questionnaire (Appendix C) was
provided to ascertain age, income, level of education, marital status, tribal affiliation, and participation in any kind of health and wellness program. Participants completed the demographic form at the beginning of the focus group meeting. The following questions were asked during the focus groups:

1. What do you mean when you talk about health?
2. What do you do to stay healthy?
3. What did you do as children to stay healthy? What did you do as adolescents to stay healthy? Do you do anything different to stay healthy now?
4. What things keep you from being as healthy as you would like to be?

(Appendix D)

These questions were followed by appropriate probe questions to elucidate and clarify the responses provided. Field notes were recorded during and immediately after the end of each focus group session.

Data analysis. The recorded data were transcribed verbatim and analyzed according to the methodologies of Glaser and Strauss. The initial focus group data was analyzed and coded into categories. Levels of coding allowed the researcher to further discover associations, key themes, and relationships between the categories elicited in the first focus group. The process was repeated with each additional focus group; however, an iterative process took place to compare data from subsequent groups. The iterative process allowed for constant comparison between collected data and new data from each focus group. This permitted theoretical sampling and recruitment of additional participants specifically to expand and support emerging concepts. The process was completed when theoretical saturation was achieved and no new or relevant
data emerged in the categories or relationships between the categories (Glaser & Strauss, 1967; Bourgeault et al., 2010).
Chapter Four

Results

This chapter will address the study findings. The researcher will describe the data collection and analysis processes as well as provide a description of the research participants. The data analysis will include thematic analysis based on Glaser and Strauss (1967) and development of a conceptual model derived from the data.

Data Collection

Participants took part in one of five focus groups. The focus groups were conducted at three different locations, the Artesian Hotel in Sulphur, and the WIC nutrition centers in Ada and Ardmore. Group size ranged from 5 to 8 participants, and each focus group lasted 60 to 90 minutes. Refreshments were served during the study participants’ informed consent process, completing the demographic form, and restatement of the purpose of the study. Each participant received a $35 Walmart gift whether or not they completed the entire focus group session. The focus group questions, included in Appendix D, were followed by additional probe questions, as appropriate, throughout the data collection process.

Each focus group discussion was audio recorded and transcribed verbatim. The transcribed data were utilized in the data analysis. In addition to the audio recordings, field notes were kept throughout each focus group meeting to record visual and
nonverbal observations about the participants and the interaction. Additional field notes were written immediately after each focus group. The field notes assisted the researcher in analyzing the audio recordings by providing visual and nonverbal context to the recorded data. Notably, focus group four was the most talkative. This group started asking one another about health and health issues, and cross talking occurred during the entire focus group meeting.

Findings

The recorded data were transcribed verbatim and analyzed according to the methodologies of Glaser and Strauss (1967). Significant words and phrases were identified and grouped into major themes. Three levels of coding allowed the researcher to further discover associations, key themes, and relationships between the categories elicited in the first focus group. Subthemes were identified within each major theme category, and then relationships were examined among the themes and subthemes. The process was repeated with each additional focus group. The process was completed when theoretical saturation was achieved and no new or relevant data emerged in the themes or relationships between the themes (Glaser & Strauss, 1967; Bourgeault et al., 2010). Finally the themes and subthemes were used to create a grounded theory of health promotion among American Indian Women.

Participant characteristics. Focus group participants included 33 American Indian women living within the boundaries of the Chickasaw Nation in Oklahoma. Participants were recruited via posted flyers throughout the Chickasaw Nation and from the Chickasaw Facebook site. All participants met the inclusion criteria except one, who was hard of hearing and was excused prior to the start of the fourth focus group. The
women belonged to five different tribes, as depicted in Figure 1. Nearly half (48%) were Chickasaw, with smaller percentages from other tribes. Participants ranged in age from 21 to 87 years. The percentage of participants in each age group is presented in Figure 2.

![Tribal affiliation](chart1.png)

**Figure 1.**

![Age](chart2.png)

**Figure 2.**

As indicated in Figure 3, 70% of the participants had at least a high school education or GED, and 21% reported holding Associate or Bachelor’s degrees. Only 9% of the women had less than a high school education. Annual income levels,
depicted in Figure 4, ranged from less than $15,000 to $65,000. Nearly half (42%) of the women were married, and a third were single. Eighteen percent were widowed, and only 6% were divorced (Figure 5).
Most of the women (76%) had not participated in any organized health or wellness program. A small percentage (15%) had participated in a health or wellness program, and 9% of the women did not answer the question regarding participation in a health or wellness program (see Figure 6). Those that had participated predominately reported participating in exercise programs (80%) and/or pre-diabetic counseling (80%).
Thematic analysis. Several major themes were derived from the focus group data. These themes included definitions of health and not health, contributors to poor health, strategies to promote health, motivation to promote health, support for health promotion, barriers to health promotion, and suggested changes to promote health. Each of these themes and related subthemes are presented below.

Definitions of health and not health. The women responded to the question “What does it mean to be healthy?” mixing their definitions of what it meant to be healthy with strategies they used to be healthy. Definitions of health are addressed here, while health promotion strategies are discussed under the strategies theme. Five subthemes emerged within the definition of health, “projecting healthiness”, “feeling good”, being mentally healthy, “just living life,” and “maintaining a reasonable rate.” These categories reflected several different aspects of health. Some women thought one’s physical appearance defined health, and others’ thought it was more about the absence of sickness. Maintaining a healthy weight, being able to perform activities of daily living, and functioning without pain were a high priority for most of the participants. Finally, the aspect of mental health was about keeping a “fit mind” and maintaining a positive outlook.

Projecting healthiness. One participant commented about her definition of being healthy stating, “It’s to project healthiness. It’s to, when someone looks at you, that you look healthy.” Another participant defined health as, “to be in good health,” and another stated, “To look good. To feel good, just overall appearance as well as health.”

Feeling good. The aspect of feeling good and feeling healthy was how some participants defined health. One woman stated, “I can wake up in the morning and feel like
everything is just healthy healthy." Another participant mentioned, “It’s maneuverability. It’s to feel good. It’s to put a smile on your face. It’s to eat healthy, to be healthy, if you’re not healthy you can’t live.”

**Being mentally healthy.** Several participants mentioned mental health as a part of being healthy. There were different aspects of mental health that emerged from the groups. One participant defined mental health as “I think being happy inside, being happy with yourself, just being happy has a whole lot to do with your health because if you’re not happy you can’t do all these other things.” Two participants talked about good mental health as, “being able to think clearly,” and that “you also need to be like in a positive mindset.” Two participants thought there was a spiritual aspect to good mental health, stating, “to be healthy goes into me spirit-wise” and “staying at church and everything, it made me feel good because I know I was right close to the Lord’s house and I thought we were healthy.”

**Just living life.** Just living life and getting around was a common theme among all five focus groups. These participants believed that it was necessary to function effectively and perform daily activities in life, even if you were in pain. Several participants defined health as just being able to do things in life without pain and medication and to move around with energy. In addition, some of those same participants expressed the need to be able to keep up with grandchildren and children. For example one participant defined health as, “To be able to get up in the morning and not ache and to be able to keep up with my kids and my grandkids and not have to worry about taking medications,” and another stated, “Just getting up, going every day, doing your daily business and no holds back.”
Other participants thought “Just living life, spending time with your children” was important. One woman stated, “I think it means that I don’t have to miss out on my own life and my children’s life.” An 87-year-old participant defined health as “I can get around and do things like I know with me my age and everything I get up and do a lot of things that I think I can’t do.” One participant described being healthy as, “That is, you know, getting up in the morning, being able to do like simple tasks that most people couldn’t do or it would be hard for most people to do that don’t keep up with themselves or that I don’t guess try to be healthy.”

*Maintaining a reasonable rate.* Several participants defined health as bypassing sickness and maintaining a good weight. Participants agreed that maintaining a healthy weight, keeping blood tests within normal limits, and not being sick would make them healthy. There was agreement among the participants that it was important to “be a good weight so you don’t get sick.” Other statements that supported this theme were “keeping them at a good weight so they’re not at risk for that,” and “125 pounds is what they told me and I’m doing it right now. I feel good.” Another participant stated, “I could bypass sickness, you know not have any kind of problems mentally or physically.”

*Health and diabetes.* Participants in the first two focus groups made frequent reference to the prevalence of diabetes in their families and themselves. These repeated comments led to the addition of a routine probe question related to the definition of health, “Can you be a diabetic and be healthy?” The majority of participants agreed that one could be healthy with a chronic disease like diabetes. One participant stated, “I think you can still be healthy just by eating right, watching what you eat and portions and exercise 20 minutes every day.” Another agreed, stating “I believe you can be and it is
just like she said, watching your diet, watch what you eat, knowing what you can’t eat, what you can eat.” Another participant spoke of heritage and diabetes stating, “Because you’re paying attention to what you’re eating, you’re exercising which is all a big part of the diabetes in our heritage.” However, one participant thought you could not be completely healthy and have diabetes, commenting, “You can’t be completely healthy by being a diabetic because there’s people I know that are diabetics and absolutely do everything they’re supposed to. Their sugars will fluctuate, their blood pressure, this, that, you know and all you can do is do your very best.”

Defining not health. Participants often defined health in terms of what it was not. They referred to not being healthy as being sick all time, having chronic illness and pain, and being overweight as a child and adult. Rheumatoid arthritis was identified in several participants’ comments, “I’ve got that rheumatoid in my knees and they build up with water and that is the hardest time right then.” Another participant stated, “I guess things go along with getting older, you know you have health problems, you know like arthritis. I have rheumatoid arthritis.” Still another woman said, “I used to be real sick where I couldn’t get out of bed for weeks.” Being overweight was frequently discussed as a child, and adult. Several participants commented, “I just sit there and gain 60 pounds,” and another stated, “I just look like a big fat blob.” Yet another participant commented, “I was overweight as a child.” Even with use of diet pills, participants had gained weight, as reported by one participant, “I got off of the diet pills, and I’ve gained almost all my weight back.” In addition to defining what health was not, several participants identified things that caused poor health.
**Contributors to poor health.** A majority of the contributors to poor health were based on unhealthy choices in the diet. The effects of stress from everyday living, lack of physical activity, and lack of housing were other contributors to poor health identified by the women. Although the participants understood what they needed to do to promote their health, they had difficulty in maintaining healthy behaviors. Four subthemes emerged from the data. These subthemes were fudge season, I am who I am, lack of physical activity, and lack of housing.

*Fudge season.* The in vivo code “fudge season” reflected participants’ predisposition to eat a lot of sweets. Although this was clearly considered potentially harmful due to the high prevalence of diabetes, a majority of the participants participated in this unhealthy behavior. For example one participant stated, “It’s kind of unhealthy, but we ate a lot of sweets and candy.” Another participant stated, “I mean, I’m not saying I don’t go crazy on stuff, because right now it’s fudge season and we’re making a lot of fudge.” Interestingly, some participants thought it was acceptable to splurge on sweets, stating, “I will set out one time a month when we will go to Walmart and splurge on sweets so that is usually the first of the month when we get food stamps.” Other participants would overeat for various reasons as stated by one participant, “I gained 35 pounds because I was so stressed out I just wanted to eat, eat, eat, and my sugar went sky high.” Another stated, “I’m not really hungry, but it’s just like you want to gorge because it looks good, and smells good, and tastes good.”

*I am who I am.* The theme “I am who I am” allowed participants to attribute unhealthy behaviors to cultural beliefs or habits that had developed over time. One participant stated, “But again I am who I am and this is my culture. I still eat fried
foods.” Another stated, “We still eat our potato chips. I’m not going to lie to you. I do snack a lot because I’m not drinking and I eat a lot more.” Some participants had witnessed unhealthy behaviors in past generations stating, “The old people all chewed tobacco, and you always see them smoking.”

Another participant took an opposite view of cultural influences on health, explaining initiatives to help people regain healthier aspects of their native cultures. “We’re teaching them to get back to what mom and dad or grandma and grandpa taught us years ago and we lost it, not just within our own, but the society and we’re just trying to get them back.” Other participants made similar comments: “We’re just learning about the Three Sister’s Garden all over again and what that really means to us as a whole healthy lifestyle living, even just the symbology of what that means.” Or, again, “What we see with our tribes is that we are trying to get back to the basics with our culture, with the wellness, the education and just trying to get all of this back and getting our families back together.”

Lack of physical activity. A few participants mentioned their lack of physical activity as a contributor to poor health. For example, one woman said, “I mean I don’t remember the last time I rode a bike.” Another mentioned not being very active, stating, ”I’m not really active that much — just what we do at the school with kids, that’s pretty much it. I’m really at the low point on that part now.”

Lack of housing. One participant mentioned having no place to live as a contributor to poor health as a child, ”We didn’t have no house; we didn’t have no place to go.” Another commented on living in the woods saying, “We had a tent way out there in the woods, nobody around — just out there in the woods.”
Strategies to promote health. A majority of the participants in every focus group described healthy behaviors as strategies to promote health. Two main categories emerged: strategies to take care of yourself and spiritual strategies.

One participant expressly stated, “Being healthy is taking care of yourself.” Participants had many strategies for promoting their personal health. These strategies included healthy eating, exercising, controlling illness, no smoking or drinking, losing weight, and educating themselves and their children.

Watch what you eat. Many participants believed it was important to eat healthy, choosing healthy foods, controlling portion sizes, substituting baking or grilling for frying, decreasing their salt intake, and not eating candy or drinking too much pop. For example one participant said, “Watching your diet, watch what you eat, knowing what you can’t eat,” and another participant stated, “We started watching what we ate — the pounds just started dropping.” A majority of participants described fruits and vegetables as healthier choices. For example one participant stated, “I like a lot of fruits and salads” and another participant commented, “But just eat healthier and buy more fruits and vegetables because the kids love them. So I’m glad they actually like the fruits and vegetables.”

Growing a garden was mentioned by a few participants as a way to eat healthier fruits and vegetables. One participant stated, “If my Aunt has a garden then we usually get it {fruits and vegetables} from my Aunt.” and another stated, “In a perfect world it would be okay and I’d have a garden.” Some participants had to budget and bargain to eat healthier diets. One participant stated, “Food is expensive so you have to try to go bargain, you know finding the stuff on sale and everything, making it last 2 weeks.”
Portion control was mentioned several times during the focus group meetings. One participant stated, “It’s all in moderation and knowing really what you want your outcome to be.” Another participant noted, “Nutritionists will tell you the best part of all . . . , you can eat anything you want to, but it’s the portion size.” Substituting foods and how food was prepared were also discussed in all focus groups. One participant stated, “I boil or bake or cook on the grill,” and another noted how frying food was part of their culture, saying, “I knew we needed to get away from so much of the fried foods and native country, man, I’m telling you it’s all about the fried foods.”

Some participants removed soda pop and candy from their diets and substituted healthier food options. One participant stated, “I have quit pop. I used to drink three a day. I don’t do that anymore. I’ve started drinking tea. I started drinking more water.” Another said, “I cut out a lot of stuff like cokes, sweet teas, desserts. We don’t have cookies and stuff around the house anymore and even cereal.”

Putting my muscles to use. Physical activity was another health promotion strategy that was reported by the women. Children and family members were important when it came to exercising. One participant said, “I do a lot of activities with my kids. We’re outside most days,” and another stated, “I’ve also started running and I do a lot of activities with my kids.” Family members were included in most activities. As one participant reported, “We go to the track and walk a mile or me and my sister go and run.” Some participants described everyday activity at work or home as a form of exercise. One participant stated, “I don’t have the fat because I’m constantly working, exercising, bending down, lifting. I’m putting my muscles to use,” and another participant stated, “I walk seven, eight hours a day at work. I work at Hastings. So I’m
constantly walking around. Then I have a 4-month-old and 3-year-old, so if it’s not one it’s the other one needing something.” Some participants had the opportunity to join a fitness program through work. As one participant stated, “I just joined a FitBit challenge through work and we have ample opportunities with the wellness center close by.”

Most participants had been active as children and adolescents and some had participated in school sports or afterschool programs. One participant elaborated stating, “I was on a swim team by the time I was five. My older brother and sister was already on a swim team.” Another participant commented, “He [father] coached us, you know, us kids doing things, and we played all kinds of sports and did track meets.”

Walking outside or on a treadmill was the most performed activity by a majority of participants. One participant stated, “I try to get out and walk as much as possible,” and another said, “On the weekends sometimes I go walking or like at work they have treadmills in our break rooms.” Even those that modified their activity due to physical constraints did so by walking. One woman noted, “I can’t walk too far, so I always go a little way there and little ways back.” Interestingly, only one participant described being clean as a strategy to promote health, stating, “Just wash my hands basically, try to keep the house and myself clean, children, just watch what we touch and stuff.”

*Do what they say.* Several participants reported controlling illness as a strategy to promote health. Following the instructions of the doctors was important. As stated by one participant, “If you do what they are saying and take your medicine and follow your diet, and exercise you can be healthy.” Another participant stated, “I am blessed that I have made all my doctor’s appointments and doing what they’re telling me to do.” It was important to several participants to mention the type of illness they needed to
control. The following statement describes what one participant thought, “I’m being checked. You know doctor’s appointments, keeping up with my blood work and blood pressure. They check my sugar level, my A1C, my cholesterol. Just general screening for everything.” Another participant stated, “You have to take medication for it [diabetes] or shots or do the exercises, change your way of eating.” Similar thoughts were voiced about seeking healthcare, as noted by one participant, “I think we just need to be more educated and take those doctor appointments seriously, don’t be missing them and you have to do what they’re saying to get better.”

A probe question, “Do you get immunized against diseases?” was introduced in the last focus group. The participants stated, “Yeah immunizations were up to date as far as I remember. I have my DTAP. I have the flu shot. I have tetanus. I mean anything that I have to have through work it’s done.” Another stated, “I had the flu shot this past Monday, no Tuesday.”

_Getting it out of my head._ Several participants thought it was important to convince oneself to do what you know you should do as a strategy to promote health. One participant stated, “It’s a learned behavior and it’s hard to get out of her [her mother’s] head. It was hard to get out of mine, but now that I kind of transitioned, it’s a lot easier for me to teach my children about what’s in our food and how we use it to live. It empowers them.” Another participant stated, “I learned that there are such wonderful things out there as fruits and vegetables that are good for you and no more junk and sugar and that really put it all into perspective. Another participant stated, “That was too much, so with classes that was really helping me.”
Getting it out of my system. Most participants realized the importance of changing their unhealthy behaviors to promote a healthier way of living as evident in the following statements. One participant stated, “I don’t eat sweets no more; I don’t drink no more; and I’m not a smoker.” Another participant stated, “We were talking about people drinking and everything and I said you know I’m so glad I got that out of my system years ago.”

Weight loss was also a factor to promote a healthier lifestyle as stated by one participant, “I had gotten up to almost 300 pounds, I’m down to 226 now and it stays right, you know what I mean, a few pounds there, a few pounds here.” Another participant struggled to keep the weight off, stating, “I recently lost 50 pounds and gradually kind of fell off my wagon.” One participant thought she needed to take a drastic approach to lose weight stating, “I had a gastric bypass about four years ago because I wasn’t eating and I wasn’t healthy.” Another participant thought she needed to take medication to assist in the weight loss process, stating, “I started taking diet pills and got to what the nutritionist said was healthy”.

Spiritual Strategies. Spiritual well-being played a dominant role as a strategy to promote health within the focus groups. Christianity was used to define and promote health by a majority of the participants. One participant stated, “You pray for your health and lot of that is within our families.” Another participant stated, “What I do when I get up every morning, I pray about it, ask the Lord to give me strength to go on and help me with my health and do a little exercise.” Another participant thought God would give us what we needed, stating, “The Word itself is a diet because I mean God will give us anything as long as he feels we need it.” One participant believed that
spirituality came from the native culture and was not based on Christianity, stating, “We prayed to the Grand Father, not God, not God, not Jesus.”

Motivation to promote health. There was an overwhelming response from the participants about how they motivated themselves to promote their health and well-being. Comments reflected the women’s actions, desires, and needs to promote their health. Seven subthemes emerged from the data. These subthemes included: “It runs in the family,” “really scared,” “just to be here,” “I tell myself,” “not good for anybody,” “making an example,” and “big fat mama.”

It runs in the family. The in vivo code “it runs in the family” reflected women’s fears of the prevalence of diabetes and other diseases that plague their families and heritage. One participant stated, “Being American Indian, diabetes runs in Indians more that it does anybody else.” Another participant stated, “Native American people, you know, diabetes runs, and I’ve see my grandmother suffer with it.”

Participants were not only concerned with diabetes but other health issues, as stated by one participant, “I have a history of stroke in my family and really a whole bunch of diabetes and cancer.” Some participants were motivated to get checked for diabetes. For example, one participant said, “I get checked for diabetes because my grandma was a diabetic and so was my mom, but I just have my check-ups done and so far we’ve been good.” Other participants experienced alcoholism in their families. For instance, one participant stated, “My dad drank; he was an alcoholic and I was afraid I might become alcoholic.”

Really scared. Fear was a powerful motivator for healthy behaviors for some of the participants. One participant described how she dealt with diabetes, stating, “I was
doing five shots a day of insulin and it was like, you know, what happened to me, it was scary.” Another participant stated, “You can get your arms, maybe your legs cut off. That really scared me, so you got to eat healthy.” A similar comment was made by another woman in discussing why it was important to promote health, particularly in the face of a family history of diabetes, “On my dad’s side of the family I had an aunt, she lost two limbs because of the diabetes. I had an uncle; they were fixing to amputate his leg, and it stressed him out so much he died on the table before they could get it.”

Another woman reported watching her parents’ struggles with diabetes and concluded, “I don’t want to be like that.” One woman was losing her eyesight and stated, “I can’t hardly see right now. I mean, me and my husband have been places and I’ve lost him in the store.” Another participant mentioned a family member with diabetes stating, “My cousin has had some issues with, you know like her foot and different things like that and for a person with diabetes, I mean, those little things are scary.”

*Just to be here.* Some participants were motivated to stay healthy by their children and grandchildren. One participant expressed this motivation, stating, “I got grandkids and children, you know, I want to live a bit longer.” Another participant agreed, noting “I have four babies and I have three grandbabies that I want to be here for, and I can’t be here if I am sick.” Other participants made similar comments. For example, one woman reported she tried to stay healthy “just to be here when my child graduates, her wedding and stuff,” and another said she was focusing on “being around for my grandkids — doing what I need to do to make sure that I stay around.” Another woman agreed noting that she wanted to be “around for a long time for my kids and grandkids.”
I tell myself: Positive self-talk was a strategy by which participants were able to encourage themselves, help boost their confidence, and motivate themselves to achieve their goals to stay healthy. One participant stated, “I said I’m proud of myself because I worked hard. It took me almost two and a half years to get rid of 200 pounds. I have worked it off, tried to stay fit and lean ever since I got that off.” Another participant was just as positive, stating, “I’ve got to do something to myself and for myself.” One participant thought having energy was motivating, stating, “If you want energy, get out there every day, and I do, find something to do.” One participant revealed a deeper self-knowledge of motivation, stating, “There’s something in your heart telling you to do, something you know, and I guess that’s what we do.”

Not good for anybody: Although, positive self-talk was noted within the focus groups, some of the participants used negative self-talk as a motivation to engage in healthy behaviors. This type of communication was thought to reinforce and motivate the participants to promote their health. One participant stated, ”It’s like this can’t be good. I mean I eat it, I feel good, but then I just sit here. I don’t want to go outside. I don’t want to do anything.”

Interestingly, one participant revealed the importance of taking care of oneself in a negative statement, ”If we’re not taking care of ourselves, we’re not good for anybody else; if you’re not taking care of ourselves, so we have to do better.” In general, this theme reflected the women’s perceptions of responsibility for the health of family members. As reported by one woman, “If I’m not taking care of me, who is going to be taking care of xxxx and the baby? So I have to be better.”
Making an example. Influencing others by teaching or setting an example was part of how American Indian women motivated themselves to promote their health. Educating children about health and health promoting strategies was evident in the following statements. One participant said, “part of my incentive to eating healthy is to set an example for her [her daughter].” Another woman stated, “I’m big on teaching them how not to be big on sweets because our family are at risk for being diabetic,” while another said, “So if I set a good example now, it’ll make a lifetime of difference for them when they’re adults.”

Sometimes participants mentioned how they were influenced by their own upbringing. For example one participant said, “My Dad was a diabetic at an early age, so he taught me back then that it was important to be healthy.” Another commented on her father’s influence on her activity as a child, “My dad put me in dance classes when I was four. I played basketball and I ran track. I did softball. I did spirit squad and then through high school I did aerobics from ninth grade until I graduated.”

Big fat mama. Dissatisfaction with one’s appearance was a motivator for a few women, particularly with respect to eating more healthy diets and losing weight. For example, one participant stated, “I don’t like the way I look, and I said I just want to feel good. I want to feel good about myself; you know, I don’t want to look like some big fat mama coming down the sidewalk.” Other similar comments included: “Well, I’ll tell you what now, I don’t know if it’s just the people I see or they think oh old xxxx, she can take it or whatever. I’ve had people actually come up to me and say man, marriage must agree with you. You sure have gotten fat.” Dissatisfaction with one’s appearance
was also reflected in this comment, “I hate to get up and get dressed in the morning because my pants are too tight and I just hate the way I look.”

Support for health promotion. Community services were a prominent health promotion support system for the participants in the focus groups. These services ranged from exercise facilities to support services for food, clothing, shelter, and group help for weight loss, diabetes, and mental health support. Most services and facilities were available throughout the towns where the focus group meetings were held.

Many of the community churches provided support for meals and commodities. One participant described how she received support, “In Ardmore we have the Lord’s church and that is, they do food on certain days of the week that you can go and pick up.” Another participant stated, “I come from a little bitty small town of 400, and the churches are all trying to bring in food baskets and stuff like that to different people.”

Some participants used other support systems to obtain food or clothing. One participant commented, “I am a product of welfare. Without them I would be almost homeless, but I try to eat as healthy as I can.” Another participant stated, “Yeah they give you food vouchers you can take to the grocery store.”

Tribal commodity programs were reported as making an effort to provide healthier food choices. As one participant stated, “We offer fresh fruits and vegetables now.” Another participant agreed, stating, “they really are trying to make it more nutritional, you know, a nutritional package, like the canned things are low-sodium or no salt at all.” Another participant was grateful for the community help, noting “Chickasaws have been very good to me since I’ve been unable to work. It’s their
commodity, canned vegetables, canned meat, and they will bring you enough for a couple of days to get you through."

Some support programs were targeted toward children’s health and well-being. For example one participant stated, “I work with children and we do health, it’s called Choosing, it’s out of West Virginia. It’s an exercise program and it’s geared to children’s nutrition.” Another participant cited her childhood participation in Girl Scouts as a support for healthy behavior, “I was a girl scout until I was 17, just always active, going and doing.”

Group support for weight loss and diabetes was evident in the following comments. “It’s a diabetes group that I belong to, pre-diabetic. It’s just a little group that meets once a month to remind ourselves as to what’s important.” Another participant stated, “The weight loss group meets every Thursday. That’s a community wide group that meets, and I do that with my mom.”

**Barriers to health promotion.** Barriers to health promotion, as identified by the focus group participants, reflected cultural and personal and interpersonal issues, as well as socioeconomic and environmental factors. Eleven subthemes emerged from the data with respect to barriers to health promotion. These subthemes included “temptation,” lack of opportunity, “it’s just easier,” “not knowing,” frustration, “being the matriarch,” “I can’t do much,” lack of community support, “we can’t afford it,” “it’s a trust thing,” and “we lost all that.”

**Temptation.** The theme of “temptation” reflected comments related to the desire to feel better by giving in to temptation. One participant stated, “I don’t know, it just makes you feel good to sometimes maybe eat something you’re not supposed to eat.”
Another participant commented, “I love chocolates and jelly beans, the flavored ones, and I know it makes me sick.” Sometimes participants would give in to temptation and then realize they needed to get back on the path of a healthy diet. As stated by one participant, “But again it’s all in moderation and knowing really what you want your outcome to be, and if it’s to be healthy then you might take a little rabbit trail here, but make sure that you get back on that path again.” Another participant stated, “I grabbed this little Danish roll thing in the 7-11, and, man, I ate about half of that real fast, which I mean I should have just waited because we were on our way to eat, but, man, I was starving.”

Lack of opportunity. “Out of the way,” a subtheme of lack of opportunity, reflected comments about how living in a rural environment limited opportunities for the participants to engage in healthy behaviors. Some participants noticed a change in the number of activities family members chose to do based on opportunities in different environments. One participant stated, “I definitely noticed a change within the family of how much more we stayed home and did less here than when we were in Kansas.” Another participant thought it was difficult to work out due to the locations of the wellness centers, stating, “I could probably stop by and do some wellness stuff out here before I go home, but that’s out of my way.” Another participant commented, “I mean, we don’t come to town but maybe once or twice a week and I mean to get vegetables and fruit.”

One participant had to stay in town for childrens’ activities stating, “Since we live so far out we have to stay in town so right now it is eating out a lot and that’s from
my dad and stepmom, they’ll feed us or I’ll go and get sandwiches, something real
cheap, take to her work [step mother] and we’ll eat there.”

_We can’t afford it._ The theme “we can’t afford it” represented perceptions of a
majority of participants regarding the costs of health promotion. Most participants
thought not having enough money was a large part of the problem when it came to
promoting their health. As one participant stated, “A lot of families don’t have the
luxury of the income because it is expensive to be healthy. I mean there’s things you can
do that don’t cost anything, but if you really want to get nutritious foods and all the
things that are good for you, it does cost money and there are a lot of families that can’t
afford to do that.” Another woman remarked, “But then you jack the prices up so high
that you can’t do it and so then we’re doomed because we’re not eating healthy. Well,
because the economy is so bad, we can’t afford it, and they won’t make it to where we
can afford it.”

Another participant spoke about the costs of joining an exercise facility stating,
“Yeah, it’s the fact that it costs for a whole family to go and we don’t have the means to
do that.” Another commented, “I even looked at the YMCA and going and buying a
membership, but that was expensive just for me and him [her child].”

_It’s just easier._ “It’s just easier,” reflected comments on participants’ struggles to
find the time needed to prepare healthy meals for their families and themselves. Several
participants believed it was just easier to pick-up food on the way home due to the
demands of work and family responsibilities on their time. One participant stated, “We
have practices. We’ve got school, homework. We’ve got so when we’re done
sometimes, it’s more than just sometimes, it’s just easier to get something and take it
home.” Another participant commented “But it seems like I’m not home before 8:00. If I am, it’s by the hair on my chinny, chin, chin that we’re home and it’s just as easy to go through a drive-through on the way to the house than it is to cook some meals.”

Working long hours was an additional struggle, as one participant noted. “I work 8-5, but it’s not always 8-5 because I teach breastfeeding and I do home visits, so by the time I pick up my kids, it’s late.”

*Not knowing.* “Not knowing” was related to some participants’ lack of knowledge of health behaviors, which created barriers to promoting their health. In talking about nutrition information she gained from class one participant stated, “I thought, ‘oh my goodness!’ Just like the simple things like that and not knowing, and it’s like ‘oh my goodness.’” Another participant commented, “When I had that [illness], I didn’t really know that eating a lot of sugar and sweets could really make you sick, that they really weren’t all that good for you until then I did.” Another woman, discussing the effects of overeating, said “You don’t know you’re depressed, but then you sit there and eat and eat and eat and don’t even think nothing about it,” Still another participant emphasized the importance of knowledge in her comment, “It really should start with our children as far as the education on how to eat and the exercise.”

*Frustration.* “It makes me cry” was a comment related to frustration at the difficulty encountered in reaching a desired health outcome. Some participants became frustrated with their lack of progress in improving their health. One participant stated, "It makes me cry. . . I try to do whatever it takes to stay healthy but this sickness is bringing me down." Another participant reported her frustration with herself after “just eating things that I know I shouldn’t and getting frustrated with myself.” One participant was
frustrated because she did not have a job, “So there’s two more extra mouths in the house and I’m staying home with the kids until I find me a job and it gets me stressed out.”

**Being the matriarch.** Although responsibility for the health and well-being of family members served as a motivator for health promotion, it also had its down side as reflected in the theme of “being the matriarch,” terminology used by one of the women to reflect the pressure of being an American Indian woman responsible for the welfare of others. This theme reflected the women’s perceptions of family responsibilities getting in the way of promoting their own health. Several women believed taking care of others was part of being a wife and mother. One participant stated, “I have three children that, you know, they come first and that’s probably my own darn fault.” Another noted, “You just put yourself on the back burner because you want the best for your husband and your children and just being that forgotten person and it’s so sad because you don’t think about it until your heath is at risk.” One woman included the effects of this feeling of responsibility on men as well, stating, “I think that’s what we do, not just women, but even you know with men also that we forget our health because everything else falls in with our families.”

**I can’t do much.** “I can’t do much,” reflected the effects of ill health on women’s abilities to promote their health. One participant commented, “I have other medical issues that keep me down where I can’t do much.” Another stated, “I am physically unable to do what I need to do.” One participant tried to eliminate stress by walking, however other health issues impeded this strategy, “I’ve gained a couple of pounds back—stress, and I know one thing to get my stress level down is to walk and to get
some exercise, but my back hurts, so that’s been a big barrier right now.” Some
participants found ways to circumvent health issues as barriers to health promoting
activities. For example, one participant reporting using “a little stairway to get in and out
of the pickup.” Another woman noted, “I can’t walk too far, so I always go a little way
there and a little ways back.”

Lack of community support. As noted earlier, community support was seen as a
factor that helped women promote their health. Conversely, lack of community support
for healthy behaviors was seen as a barrier to health promotion. “You don’t have much
choice” was a comment voiced by the women faced with difficulties in obtaining
healthy food to promote their health and the health of their families. With respect to
meals provided by churches and community centers, one participant stated, “You don’t
have much choice but to eat what they have and they serve dessert, so many times my
kids will eat that.” Another participant said of community food programs, “They give
you canned foods but you don’t get no lettuce or tomatoes or stuff to make a salad.”

“I need help here,” reflected comments about not having enough food to eat, and
struggles to obtain food stamps, cover the cost of medical supplies, and obtain vouchers
for medical items. Some participants were not eligible for community assistance, as one
participant noted, “I mean, I don’t get government assistance. I don’t get commodities. I
don’t get child support or nothing.” Some participants had no food. One woman stated,
“I was out of groceries. I still had another week to go before my food stamps got there.”
Another reported difficulties in following healthcare recommendations, “Having low or
no income we can’t do what they tell us to eat or stuff like that, our doctors or the
nutritionist people, for diabetes.”
It's a trust thing. “It’s a trust thing,” related to participants’ concerns with clean drinking water and chemicals and pesticides used in food products. One participant stated, “We have no idea what we’re taking into our bodies and what it all causes and all that, so I’m sure we’re just the government’s guinea pigs really.” Another woman commented on availability, and a trust thing. “I’m not very trusting of stuff, you know, like from Walmart and stuff like that. I’d rather get it at a farmer’s market, but nowadays a lot of things are grown and have a lot of different stuff in them. They’re not all fresh.” One participant complained of brown drinking water stating, “When you turn it on, ours is kind of a brown-yellowish tint and you have to let it run for a little bit, but now it does not taste anything like it did when we were kids.”

We lost all of that. “We lost all of that” was how participants described losing their cultural beliefs and eating habits to relocation and living on government commodity programs. One participant stated, “We lost all of that. We had to go back to just processed food and transitioning in that short amount of time, our bodies aren’t meant for that. We lived that way for so long and to go to transition to just processed foods and chemicals and everything being fried.” Another woman commented, “I think before relocation of the whole tribe, we lived with more fresh meat, fresh herbs, and everything but we lost all of that.” Another participant recalled watching her grandmother cook with nothing but commodities stating, “I’d see her cook with a big old vat of Crisco and then you can see her commodities in boxes on the floor and this what she, she never got to go to the store and pick up fresh fruits or she didn’t have the land.” One agreed saying, “No flour, no sugar, no powder. You know just anything that
has yeast or any kind of carbs in it pastas and that’s hard, too because of the way we eat, our lifestyles, what we grew up eating.”

Changes to promote health. A majority of the women in all the focus groups made suggestions regarding changes that would help them engage in health promoting behaviors. Three themes emerged from the data, family, better access, and “we’re just about learning.”

Family focus. The family subtheme reflected comments related to changes that would promote healthy behaviors for the entire family. The women commented in particular about the fact children are not included in wellness center activities. For example, one participant would like to have opportunities for “doing things as a family so they can come together and even if it’s just a single parent at least the parent and the kids can all go. So not trying to separate, make a separation there.” Another participant stated, “I think more families would go [to exercise facilities] probably as a family if there was some daycare there to where they could take their children.” Another woman also thought children should be able to go to the wellness centers stating, “So that’s a big thing right there for the kids probably to be able to participate in the wellness centers at a younger age.” Another agreed stating, “I think that’s a big issue as far as daycare goes, being able to either take your kids and have them participate or having a place to take them so you can, you know [exercise].”

Better access “Better access” reflected comments related to the need for better access to stores that support healthy behaviors, particularly healthy eating. As one participant stated, “To help us on this nutrition and stuff, why don’t he [tribal leader] open up some little stores where Chickasaw people or the native people could shop at a
discount.” Another participant said, “We’re trying to get off all this processed food and
everything, and I say about the food thing that if it were made more available to us.”
Some participants thought they could buy more fruits and vegetables at the farmer’s
market, “Usually if I get farmer’s vouchers, I go to the farmer’s market.” Another
followed up with a similar comment, “I know you can use those vouchers at the farmer’s
market there; you might get lucky enough, you know what I mean, to make your dollar
stretch farther.”

**We’re just about learning.** The theme “we’re just about learning” was related to
the women’s perceptions of the need for education to change their health-related
behaviors. One participant stated, “we’re just learning about Three Sister’s Garden all
over again and what that really means to us as a whole healthy lifestyle living.”
Teaching children was another important aspect of learning, as one woman stated, “It’s a
lot easier to teach my children about what’s in our food and how we used to live.”
Another participant commented on how learning helped her eliminate unhealthy foods
by stating, “I started learning what they [her parents] ate, and I started taking a lot of
things away from them.” One participant commented about how she taught family
members how to cook healthier. “Let’s put this in the oven, and I started to teach her,
[mother].” Attending diabetes prevention classes was seen as very helpful, as one
woman stated, “I went through the diabetic clinic in Ada and they showed us so much.”
Another participant agreed stating, “I’ve taken a lot of diabetes classes to watch the
intake of all kinds of fats, the sugars, and carbs.”

**Theoretical construct.** According to Glaser and Strauss, (1967) developing a
theoretical construct is the final step in data analysis using grounded theory
methodology. After a thorough analysis of the data a theoretical health promotion construct was developed. The central category of the model, as depicted in the center of Figure 7, is health promotion strategies. The boxes above the strategies box (motivation to promote health, health promotion support, barriers to health promotion, and changes to promote health) reflect the factors influencing the use or non use of the strategies to promote health. The boxes below health promotion strategies represent the consequences of using or not using the strategies and include health and not health. Contributors to poor health are connected to, and only affect, the category of not health. The bifurcated arrow between health and not health indicates the respective result of using or not using the strategies.

In Chapter 5, the proposed model is compared to existing models for health promoting behavior with an eye toward examining their utility for use with American Indian women.
Figure 7. Theoretical Health Promotion Construct

**Motivation**
- It runs in the family
- Really scared
- Just to be here
- I tell myself
- Not good for anybody
- Making an example
- Big fat mama

**Support for Health Promotion**

**Barriers**
- Temptation
- Lack of opportunity
- It’s just easier
- Not knowing
- Frustration
- Being the matriarch
- I can’t do much
- Lack of community support
- We can’t afford it
- It’s a trust thing
- Lost all of that

**Changes to Promote Health**
- Family focus
- Better access
- We’re just about learning

**Strategies to Promote Health**
- Watch what you eat
- Putting my muscles to use
- Do what they say
- Getting it out of my head
- Getting it out of my system
- Spiritual strategies

**Health**
- Projecting healthiness
- Being mentally healthy
- Feeling good
- Just living life
- Maintaining a reasonable rate
- Health and diabetes

**Contributors to Poor Health**
- Fudge season
- I am who I am
- Lack of physical activity
- Lack of housing

**Not Health**

- Feeding the war
Chapter 5

Discussion

The first section of this chapter will discuss health promotion and health behavior models and compare them to the grounded theory model derived from data gleaned in the focus groups. A brief description of the evolution of definitions of health and health promotion is included to set the stage for comparisons among the models. Subsequent sections of the chapter compare study findings to those of previous research, address the credibility of the findings, and discuss their implications for practice and future research.

Defining Health and Health Promotion

The World Health Organization (WHO) defined health in 1948 as “a state of complete physical, mental, and social wellbeing and not merely absence of disease or infirmity” (WHO, 1948, p.100). In 1986, the Ottawa Charter concluded healthcare is more than basic care, it includes promoting one’s health. More recently, the Bangkok Charter for Health Promotion has expanded its definition to include a more generalized approach to health and health promotion as “a process of enabling people to increase control over and to improve their health” (WHO, 2006, p. 1).
Comparisons with Existing Health Promotion Models

Shortly after WHO defined health in 1948, a model designed to explain health-related behaviors, including health promotion behaviors, was developed in the 1950's by social psychologists in the U.S. Public Health Service. The model was created due to the widespread failure of screening programs and was intended to help predict public attitudes, beliefs, and actions surrounding health issues (Tones & Green, 2004). A number of health promotion theories and models are used today to explain health behavior in individuals. Five such models are presented here, including the health belief model, Pender’s health promotion model, the theory of reasoned action, social cognitive theory, and the transtheoretical model. These models are compared to the conceptual model derived from the focus group findings.

Health belief model. The health belief model (HBM) was developed to explain and predict health-related behaviors. The six key concepts of the model are perceived severity, perceived susceptibility, perceived benefits, perceived barriers, cues to action, and self-efficacy. The theme of “really scared” in the present study represents a perception of the severity of possible health consequences that may motivate healthful behaviors. Perceived severity may also be reflected in the theme of “not good for anybody” in that failure to engage in health promoting behaviors may lead to the woman’s not being of any use to others due to the consequences of ill health.

Perceived susceptibility refers to how likely the individual is to develop a particular health problem and reflects their perceived risk. This concept is reflected in the theoretical construct theme of “it runs in the family.” Perceived benefits in the HBM refers to the how an individual views the proposed behavior change and whether the
behavior is expected to decrease the risk of developing the disease or condition. For example, if a person views yearly mammography as decreasing the risk of dying of breast cancer, the likelihood of obtaining a mammogram will be greater. In the study findings, the strategies to promote health described by the women are perceived as having benefit and reducing their risk of disease.

Perceived barriers in the HBM refer to impediments to health promoting behaviors. Barriers incorporated in the theoretical construct are comparable to the perceived barriers concept in the HBM. Cues to action are events, things, or people that cause a behavior change. For example if several family members have diabetes, it is likely the person at risk may seek further testing to assess their risk for diabetes (Riekert, Ockene, & Pbert, 2014; Health Belief Model, 2014). Categories of motivators for health promotion included in the current theoretical construct could be considered cues to action as incorporated in the HBM. If enacted, the changes suggested by the women to facilitate health promotion might also serve as cues to action. Comments by the women indicating behaviors they know they should engage in, but do not, may reflect the relative strength of perceived benefits and barriers to action in this population.

In addition, self-efficacy can also affect an individual’s health behavior. Self-efficacy refers to the confidence an individual has in his or her ability to engage in the behavior change. Self-efficacy can sometimes explain why some individuals are successful at changing unhealthy behaviors and some are not (Bandura, 1997). In the current theoretical construct, the theme of self-talk embodied in “I tell myself” may reflect the concept of self-efficacy.
The overall health belief model might be considered a potential fit for the study findings, except there are other factors in the study model that are not adequately addressed within the HBM. Environmental factors that may influence one’s health behaviors are not specifically included in the HBM, but were found to influence health behaviors among women in this study. For example, participants noted that rural environments that lacked supports for healthful behavior impeded health promotion. Conversely, some women indicated that living in a rural area promoted and increased their physical activity, particularly as children. Similarly, the theme of support for health promotion derived from study data reflects environmental factors influencing health promoting behaviors. In addition, although the HBM addresses barriers to health promotion as a general concept, the theoretical construct developed from the study data identifies specific barriers that may influence health promoting behaviors in this particular population.

**Pender’s health promotion model.** Pender’s health promotion model is based on concepts relating to health protection or illness prevention, including individual characteristics and experiences, behavior specific cognitions and affect, and behavioral outcomes (Pender, 1996, 2011). Individual characteristics may be biological, psychological, or sociocultural. Variables such as age, gender, body mass index, pubertal status, aerobic capacity, and strength and agility affect the biological aspect of health. The biological aspect of health was noted in the subtheme, “just living life.” Many participants believed it was important to move around with energy, perform activities of daily living, and be able to keep up with kids and grandkids. Physical constraints were also a part of the biological aspect of health and were identified in the
subtheme, “I can’t do much.” For example, one participant stated, “I am physically unable to what I need to do.” The effects of ill health impeded women’s abilities to promote their health.

Variables such as self-esteem, self-motivation, personal competence, definition of health, and perceived health are affected by psychological factors. Several subthemes in the study model addressed psychological aspects of health. Being mentally healthy, “I tell myself,” “not good for anybody,” and “big fat mama,” reflected Pender’s variables of self-esteem and self-motivation. Not good for anybody was a type of negative self-talk that was used to motivate and encourage participants to engage in healthy behaviors.

Big fat mama reflected how dissatisfaction with one’s appearance was a motivator for some women to eat healthy and lose weight. Self-esteem may have affected how these women promoted their health in the comments, “I hate to get up and get dressed in the morning because my pants are too tight and I just hate the way I look,” and “I want to feel good about myself; you know, I don’t want to look like some big fat mama coming down the sidewalk.”

In Pender’s model, race, ethnicity, acculturation, education, and socioeconomic status are sociocultural factors that influence health promotion. “We lost all that,” is a reflection of how health promotion is affected by sociocultural variables. Participants described losing their cultural beliefs and eating habits to relocation and living on government commodity programs. Similarly, “it costs too much,” reflected the effects of socioeconomic status on health promotion behaviors.

Behavior specific cognitions and affect are related to the individual’s perceptions of benefits related to the behavior. Perceived self-efficacy is a measure of one’s ability
to execute a health promoting behavior; the greater the self-efficacy, the lower the perceptions of barriers to performing and/or changing behaviors to promote health. Interpersonal influences, behaviors, attitudes, and beliefs of others’ affect change and can facilitate or impede behavior change for the individual. The subtheme “temptation” related to how behavior specific cognitions and affect can influence an individual’s perceptions of benefits related to the behavior. This theme reflected women’s feelings about giving in to temptation, as one participant commented, “I don’t know, it just makes you feel good to sometimes maybe eat something you’re not supposed to eat.”

Activity-related affect is defined as subjective feelings, positive or negative, that occur when an individual seeks to change their behavior. If the feeling is positive, the behavior change will continue; a negative feeling may prevent the individual from engaging in the behavior change. Individuals who subscribe to Pender’s model may commit to health promoting activity; however the intention to act, based on the behavior specific cognitions and affect, can be sabotaged by events or individuals. Thus, this can change the motivation to promote one’s health. Two subthemes, “it’s just easier,” and “being the matriarch,” address how individuals had good intentions to change a behavior but were derailed by events and individuals. It’s just easier related to how participants struggled to find time to prepare healthy meals for their families and themselves. Several participants believed it was easier to pick up food on the way home. The subtheme, “being the matriarch,” reflected women’s perceptions of family responsibilities getting in the way of promoting their own health.

The theory of planned behavior. The theory of planned behavior uses concepts of perceived behavioral control or intention, attitude towards the behavior, and
subjective norms to predict health-related behaviors. In other words, if a person intends
to do a behavior, it is likely that the person will perform the behavior, unless they are
influenced by relevant individuals or groups with conflicting views. People will act
based on the intentions they develop. This requires adopting a positive attitude toward
the behavior and viewing it as the norm. They must also believe they have the ability to

Perceived behavioral control or intention measures one’s ability to perform a
behavior. This perception is based on the one’s past experiences and obstacles or
challenges that may be presented during the behavior or intention. One’s attitude toward
the behavior will influence the outcome of the behavior based on whether the individual
has a positive or negative evaluation of the behavior in question. Subjective norm refers
to the social pressures or influences by groups or individuals that may cause the
individual to either perform or not perform the behavior (Ajzen, 1991).

The theme motivation to promote health is one example of how the theory of
planned behavior may fit in predicting the behaviors in American Indian women.
Perceived behavioral control and attitude towards the behavior are identified in the
subthemes, “it runs in the family” and “really scared.” Participants’ behaviors and
attitudes were controlled by their fears of the prevalence of diabetes and other diseases
that plague their families and heritage. Some women would receive diabetic testing to
promote their health.

Other participants would constantly be reminded of how their relatives were
suffering from the co-morbidities of diabetes, affecting their attitudes and motivation to
promote their health. The subtheme, “I tell myself,” was how participants encouraged
themselves through positive self-talk to boost their confidence to create a favorable behavioral intention and maintain an optimistic attitude.

Overall, American Indian women are a social group and therefore social pressures and influences are common in how they promote their health. In the subtheme, “big fat mama,” one participant was influenced by her friends and family members to lose weight by the comment “you sure have gotten fat.” The participant was dissatisfied with her weight, which may cause a change in her behavior and attitude, thereby encouraging her to lose weight. Additionally, themes and subthemes related to social support and lack of social support were identified in the results. Support for health promotion reflected the community support system that was available to the participants. Services ranged from food support programs to group help for diabetes and weight loss and exercise facilities. Conversely, lack of social support was also identified. As one woman commented, ”You don’t have much choice but to eat what they have and they serve dessert, so many times my kids will eat that.”

Although this model predicts behaviors and attitudes, which may be useful in this study, it fails to account for spontaneous, impulsive or habitual behaviors, the results of cravings, or simply mindless behaviors as documented in the study model by subthemes such as “fudge season,” and “temptation.” Since the aim of the theory of planned behavior is to explain volitional behaviors, this model would not be conducive to use in this study with a vulnerable population who has a history of addiction, food cravings, and sometimes, impulsive behaviors.

**Social cognitive theory.** Social cognitive theory (SCT) postulates individual behaviors are based on the effects of the environment, which can include social, cultural,
political, physical and situational, and personal factors, such as demographic, cognitive
and personality related issues. The theory takes into account a person’s past experiences,
as these experiences influence how individuals behave and determine whether a person
will engage in a specific behavior. There are six constructs: reciprocal determinism,
behavioral capability, observational learning, reinforcements, expectations, and self-
efficacy (Riekert, Ockene & Pbert, 2014).

Reciprocal determinism refers to how a person’s behavior is influenced by
personal factors, such as their learned and lived experiences, and the social
environmental factors that can ultimately affect individuals’ experiences in their lives.
Several themes and subthemes may be related to how a person’s behavior is influenced
by personal factors. Notably, the focus group participants discussed their health
promoting behaviors as children. These behaviors then became the motivating factors to
promote their health as adults as noted in the subthemes, “I tell myself” and “not good
for anybody.” The theme, “support for health promotion” and the subtheme “lack of
community support” were social environmental factors that influenced individual
behaviors. For example, one comment reflected the difficulty of following healthcare
recommendations due to socioeconomic factors, “Having low or no income, we can’t do
what they tell us to eat or stuff like that, our doctors or the nutritionist people, for
diabetes.”

Environmental factors were also a contributor and affected the behaviors of
individuals in the subtheme “better access.” Allowing access to exercise facilities and
better nutrition would help support healthier behaviors. Family participation influenced
the behaviors of the women in the study as depicted in the subtheme “family.” If
families could exercise together there may be more opportunities for them to promote their health.

Behavioral capability refers to how well one can perform a given behavior based on one’s knowledge and skill. The absence of behavioral capability is reflected in the subtheme of “I can’t do much.” Several themes in the study model fit with SCT. One theme in particular is “changes to promote health.” This theme provides an example of how SCT can benefit individuals by giving them opportunities to improve their knowledge and increase self-efficacy as depicted in the subtheme, “We’re just about learning.” Similarly, lack of knowledge, identified as a barrier to health promotion, was seen by the women as influencing their capacity to engage in health promoting behaviors.

Observational learning occurs when a person can witness the behaviors of others and emulate the behavior. Reinforcements refer to the internal, (self) and external, (environment) responses toward a behavior. These responses can be positive or negative and affect whether the behavior will be continued or stopped. Expectations can be based on past experiences, thereby affecting the outcome of the behavior. Anticipating the outcome of the behavior can sabotage or influence the result of the behavior. Self-efficacy refers to the confidence or ability an individual has to affect behavior change. Self-efficacy develops overtime from accomplishments, failures, and influences from others and the social environment. It can also be affected by one’s mental state. Several subthemes listed previously identified how the women sometimes lacked the confidence or ability to promote their health. Socioeconomic factors had an influence on self-efficacy, thus affecting how these women perceived health behavior changes.
Using this theory with a vulnerable population poses several concerns. Self-efficacy is a process that develops over time and is influenced by personal and environmental factors. The social determinants of health that affect this population are very pronounced, which may affect self-efficacy. Chronic socioeconomic conditions cause a static environment, which may create little or no chance to promote health in vulnerable populations. The proposed study model addresses these concerns.

**Transtheoretical model.** The transtheoretical (TT) model, is based on the stages of change. There are five stages of behavior change that occur in a non-linear process over time. These stages are: precontemplation, contemplation, preparation, action, and maintenance. In the precontemplation stage, which can last 6 months, the individual is unaware their unhealthy behavior is problematic and fails to take action in a timely manner. Individuals may be in this stage because they are uniformed or lack knowledge about the consequences of their behavior. In the contemplation stage, the individual begins to realize his or her behavior may be problematic and starts to evaluate the pros and cons of the unhealthy behavior. They are more aware of the pros and cons, which may cause them to become stuck and ambivalent about changing their behaviors. In the preparation stage, the individual starts to develop plans to change his or her behavior that may lead to a favorable outcome. Individuals may have taken significant actions, such as enrolling in a health program. In the action stage, the individual has accepted the plan and is working towards changing the unhealthy behavior. Changes and modifications have been performed. In the maintenance stage, the individual has maintained the healthy behavior change for more than 6 months and is working to prevent a relapse to the unhealthy behavior (Cancer Prevention Research Center...
Transtheoretical Model, 2014). These stages of change require the individual to apply a
cognitive and affective evaluation process. These processes may result in additional
strategies to help an individual maintain a healthy behavior.

The stages of change are somewhat apparent in themes and subthemes as
presented in the study model. Examples of some of themes and subthemes are listed for
each stage. Some of the women may have appeared to be in the precontemplation stage
as depicted in the subthemes, “temptation”, “fudge Season” and “I am who I am.” Many
of the women were in the contemplation and preparation stages as depicted in the theme
“strategies to promote health” and several subthemes, such as “watch what you eat,”
“putting my muscles to work,” and “do what they say.” Other participants were in the
action stage as reflected in the subtheme, “maintaining a reasonable rate.” As one
participant commented, “and 125 pounds is what they told me, and I’m doing it right
now.” A few women might have been in the maintenance stage as depicted in the
subtheme, “getting it out of my system.” For example, one participant stated, “I don’t eat
sweets no more; I don’t drink no more; and I’m not a smoker,” which may suggest
maintenance.

The TT model, however, doesn’t specifically address factors that would impel
change from one stage to another, which the study model includes as identified in the
theme “motivations to promote health.” The subthemes within this theme were an
example of what the TT model does not address—factors that would induce possible
changes. A few examples are: “it runs in the family,” “really scared,” “not good for
anybody,” and “I tell myself.” Using the study model would more than likely produce
better health outcomes for this vulnerable population.
Comparisons with Prior Research

Previous literature regarding health and health promotion in American Indians revealed this population as at high risk for CVD, diabetes, hypertension, obesity, and several other chronic diseases. A majority of these studies were mixed gender and did not focus solely on women. No studies focused on the health perceptions and health promoting behaviors of American Indian women; however, in some studies women were identified independently of men.

Several studies, including those by Hodge et al (2011), Hodge and Kotkin-Jaszi (2009), and Rhoades and Weltry (2007), identified obesity as a causal factor for sleep apnea, diabetes, hypertension, and cardiovascular disease. Furthermore, smoking was the most common risk factor among women (Struthers et al., 2006). In the current study, contributors to poor health included eating sweets, choosing unhealthy food, and overeating. The definition of not health indicated a majority of the participants were overweight or obese. One participant stated, “I just look like a big fat blob.” As stated previously, a majority of the participants or their family members had diabetes.

Hutchinson and Shin (2014) noted American Indians are 1.5 times more likely to have heart disease and hypertension, maintain BMIs >30, and smoke. The likelihood of having diabetes is 2.3 times higher than among Caucasians. The focus group findings supported the high incidence of chronic disease in the AI population. Based on the participants’ comments, many of them had diabetes, as did members of their families. Some participants mentioned that American Indians had more diabetes than anyone else. Participants also struggled with their weight. Interestingly, observations included in field notes identified 28 of the 33 participants as being overweight.
Two studies conducted in 2008 and 2011, explored health behaviors and perceptions of nutrition and diet in the AI population. Overall results from Carter, Morse, Giraud, and Driskell (2008) indicated women had higher levels of obesity, and the study population reported consuming more saturated fats than recommended by dietary guidelines. The current study identified similar dietary behaviors. Participants in the focus groups admitted to loving their fried foods. Carter et al. hypothesized that health-influencing behaviors might stem from historic relocation. Some participants in the current study concurred with this assessment, stating, “I think before the relocation of the whole tribe, we lived with more fresh vegetables, meat and fresh herbs and everything, but we lost all that”.

A qualitative study conducted by Parker and Hunter (2011) within the Chickasaw Nation identified a major theme for diabetes prevention in the community with a preference for a family-based education plan. The current study also identified a need for community level changes that would facilitate health promoting behaviors. Several participants thought a family-based wellness center where families could work out together would increase physical activity for the whole family. As one participant stated, “Not very many exercise places, gyms, allow kids here. I would have to pay an extra $30, $45 for them to sit in there and watch TV.”

In a study by Hodge and Nandy (2011), participants associated wellness with being spiritually and emotionally in balance with the environment. Their respondents also reported negative health conditions such as diabetes, obesity, and high-risk behaviors. In the current study, many participants equated health with both physical and
spiritual wellbeing. One participant stated, ”To be healthy mentally goes into me spirit-wise, you know, spiritual things. I think about a lot”.

A review of physical activity by Coble and Rhodes, (2006) concluded little was known about physical activity among Native Americans. The study results indicated that health and perceived health were negatively associated with physical activity. There was a moderate correlation between physical activity and social environment. Participants in the current study indicated an awareness of the need for physical activity and identified several approaches to incorporating physical activity into their daily lives. Several of the women in the focus groups thought if families could work out together in the wellness centers, they would be more likely to engage in physical activity.

A study by Nicotera, Walls and Lucero, (2010) explored trends related to access to healthcare and education, urban and reservation experiences, traditional modes of healing, and responses to historical trauma and genocide. Although the current study did not specifically address these trends, several participants noted a loss of cultural patterns as a barrier to health and health promotion.

A more recent study by Shah et al. (2014) used focus groups to determine perceived barriers faced by the AI population in obtaining healthcare. Barriers identified included lack of transportation, difficulty dealing with healthcare professionals, difficulty navigating the healthcare systems, lack of awareness of resources, and long waiting times. Women in the current study reported none of these factors as barriers to health promotion activities, but a number of different barriers emerged.

Several prior studies were congruent with the current findings related to diabetes, obesity, and several other chronic diseases that afflict this population, dietary habits, the
loss of cultural patterns as a barrier to health, lack of physical activity, and the need for a family-based education health plan. No prior studies specifically addressed how American Indian women define health, what they do to promote their health, or the motivating factors they use to engage in healthy behaviors.

**Credibility of the Findings**

Four criteria are commonly used to evaluate qualitative research: credibility, dependability, transferability, and confirmability. These criteria establish the trustworthiness of the findings. Trustworthiness is a way to demonstrate the credibility and integrity of the qualitative research process (Cottrell & McKenzie, 2011).

Credibility addresses the issue of consistency between the researcher’s representation of the data and the participants’ views. Clarity regarding the data collection and analysis processes is important so other researchers can determine the steps by which the researcher arrived at his or her interpretation of the data. In the current study, interviews were recorded and transcribed verbatim. During the focus group process, the investigator often restated her interpretation of comments provided by respondents to obtain validation or stimulate clarification. Participants’ verbatim statements are presented in the data analysis to minimize the potential for misinterpretation of data (Cottrell & McKenzie, 2011). In addition, the verbatim transcripts were examined and themes and constructs validated by members of the dissertation committee. This assistance further refined the study results.

Dependability refers to the consistency of the research process used over time. An independent auditor reviews the activities of the researcher as recorded in the study documents. The researcher needs to document the research process at each stage of the
study to allow for replication (Ryan, Coughlan, & Cronin, 2007). After obtaining IRB approval, the researcher collected and then meticulously analyzed the data. A synopsis of the field notes was included in the analysis as well as any additional probe questions asked.

Transferability occurs when the findings of the study can “fit” into other contexts allowing the reader to apply the findings to their own experiences (Cottrell & McKenzie, 2011). The researcher believes the theoretical construct identified can be utilized with other cultural groups that experience barriers related to the cost of health promotion, lack of community support, and loss of cultural patterns. The researcher also believes the risk factors in this study are related to the social determinants of health; therefore the theoretical construct derived from this study may be applicable to other cultural groups in and outside of the United States.

Confirmability requires the researcher to confirm that the findings are a true representation of the study. During and after data analysis, the study process can be opened up to outside reviewers for verification (Ryan et al., 2007). This study was supervised, and the dissertation chair reviewed data collection and analysis throughout the research process. The researcher made every attempt to maintain a neutral position during the focus group interviews. Open-ended questions were used during the data collection process and when necessary, probe questions were added to clarify and corroborate the group data.

**Study Limitations**

It is important to acknowledge the limitations of a research project to preserve the integrity of the study. Several limitations existed in this qualitative study design.
Focus groups were used in the data collection process. Although focus groups have been used extensively in the AI culture to stimulate discussion, they may also keep participants from sharing sensitive information about certain topic such as health and health promoting behaviors. Although the data were collected from three different towns within the Chickasaw Nation boundaries, some of the participants were known to one another, which may have prevented participants from discussing health topics at a more in-depth personal level in a public environment.

The researcher did not know any of the subjects; however, the researcher identified herself as a member of the Chickasaw tribe, which may or may not have influenced the participants’ responses when discussing health and health promotion. The enthusiastic response to the recruitment flyers suggests that the researcher’s membership in the tribe may have been helpful.

Second, individuals behave differently in groups, and when they are watched. Thus, this can ultimately affect the quality of the research results. The participants’ reports of their beliefs and attitudes about health and health promotion behaviors may differ from their actual behaviors. In reporting their strategies to promote health, the subthemes, “watch what you eat,” “putting my muscles to use,” and “do what they say” may have differed from their actual behaviors. The field notes identified 28 of the 33 women as being overweight or obese. However, given participants’ willingness to discuss both health promotion behaviors they performed and those they knew they should perform, but did not, suggests that their responses were not colored by social acceptability.
Third, the participants received a $35 dollar Walmart gift card, which may have influenced their participation in the group discussions. Furthermore, these self-selected women who lived within the Chickasaw Nation boundaries, were willing to speak about health and health promotion behaviors, and who received a monetary stipend may not be representative of American Indian women. Therefore the study findings may not be generalizable to all American Indian women or even to all Chickasaws.

Fourth, the researcher used open-ended, semi structured, questions to promote group discussions about health among the participants and control personal bias. The researcher was also the moderator for the focus groups. In particular, focus group four was very spirited in their conversations about health and health promotion. They were talking over one another and by the end of the meeting; they were asking each other about health and health promoting activities. Some aspects of health and health promotion behaviors may not have been uncovered, especially in focus group four. Furthermore, every focus group included family as part of their health promotion strategy and motivation to engage in healthy behaviors, which may have affected their own personal views about health and health promoting behaviors.

Fifth, participants may or may not have provided more in-depth responses to the researcher based on her tribal affiliation. However using a quantitative research method with this group would not have allowed the data to emerge in the context in which it was presented.

Finally, using grounded theory has a high potential for methodological error. Intercoder reliability is a standard to measure the quality and validity of the research. Theoretical constructs were developed based on the emerging data, and the researcher
was assisted by an expert qualitative researcher to validate and help with the coding and development of the constructs. Thus, collaboration with the expert researcher in this process suggests the researcher’s work is valid.

**Implications for Practice and Research**

There are an estimated 5.2 million American Indian and Alaska Natives (AI/AN) in the United States. Since 2000, the size of this minority population has increased by 39% (CDC, 2013b). The Indian Health Service (IHS) has indicated cultural barriers prevent AI/ANs from receiving quality healthcare. American Indians are extremely heterogeneous, reflecting differences in geographic location, urban versus rural living and reservation versus non-reservation residence, tribal affiliation, and culture. Therefore, attention must be given to the cultural views of this ethnic population to promote better health outcomes, which may reduce healthcare costs.

The conceptual model derived from the focus group data may assist healthcare personnel in providing guidance and fostering changes in how AI women perceive health and in their health promoting behaviors; however, this model represents views of American Indian women residing within the boundaries of the Chickasaw Nation. American Indians are a heterogeneous group. To validate the findings and their transferability, similar research regarding health and health promoting behaviors should be conducted with other tribes.

Understanding health promotion behaviors in America Indian women could possibly increase healthy behaviors and decrease or prevent a number of chronic diseases that afflict the American Indian population. The influence of social
determinants of health and conditions of social support needs to be further examined in this heterogeneous group.

The need for health education was identified among the focus groups. Women were seeking health promotion knowledge for themselves and their families. Further research on effective family health educations programs in this population might increase engagement in health promoting strategies. Further research with other tribes will serve to provide a better understanding of how American Indian women perceive health, how they promote their health within the context of their culture, and the barriers they experience. Understanding the factors associated with health perceptions and health promotion behaviors is essential in reducing health inequities and creating effective interventions embedded in a cultural context for this population.
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Appendix A

Recruitment Flyer

Dear Member of the Chickasaw Nation,

My name is Sharon Boothe-Kepple, as a member of the Chickasaw Nation I am interested in ways to improve the health of our people. I am a PhD student in nursing at the University of San Diego, Hahn School of Nursing and Health Science, and my dissertation research will explore health and health promotion behaviors and practices among American Indian women who reside within the boundaries of the Chickasaw Nation. Health care providers need to understand how you view your health and be able to provide culturally appropriate health care and health promotion services. The research will involve participating in a group discussion for approximately 90 minutes discussing how you view your health and what you do to stay healthy. There may be a second optional 60-min. session at another time. There are no potential risks for this study, and there are no immediate benefits to the participants. Your participation is voluntary, and you have the right to withdraw from the study at any time. You will receive a $35 Walmart gift card whether or not you complete the entire session(s).

If you are an American Indian female, 21 years of age or older, live within the Chickasaw Nation boundaries, able to speak and understand English, you are eligible to participate in this study.

If you are interested in participating please call or text me at (619) 987-6708, send an email to; sharonboothe-kepple@sandiego.edu, or inform Bobby Saunkeah, RN, CDE, CIP at the Chickasaw Nation Department of Health at (580) 421-4562.
Appendix B

Research Participant Consent Form

I. Purpose of the research study

Sharon Boothe-Kepple is a student in the Hahn School of Nursing and Health Science at the University of San Diego. You are invited to participate in a research study she is conducting. The purpose of this research study is to explore health perceptions and health promotion behaviors among American Indian women living within the Chickasaw Nation boundaries of Oklahoma.

II. What you will be asked to do

If you decide to be in this study, you will be asked to:

Participate in a focus group discussion about health and health promotion behaviors that lasts about 90 minutes. After the first group meeting, you may be contacted again by phone by the investigator to ask about attending a second group meeting to review what was said. This second meeting would last about 60 minutes.

You will be audiotaped/videotaped during the interview(s).

Your participation in this study will take a total of 2 hours and 30 minutes if you attend both meetings.

III. Foreseeable risks or discomforts

Sometimes when people are asked to think about their feelings, they feel sad or anxious. If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day:

National Mental Health Hotline number: 1-800-273-TALK (8255)
You can also contact your primary care provider.

**IV. Benefits**

While there may be no direct benefit to you from participating in this study, the indirect benefit of participating will be knowing that you helped researchers better understand what American Indian women think about health.

**V. Confidentiality**

Any information provided and/or identifying records will remain confidential and kept in a locked file and/or password-protected computer file in the researcher’s office for a minimum of five years. All data collected from you will be coded with a number or pseudonym (fake name). Your real name will not be used. The results of this research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually. *Please know that we are asking all members of the focus group to keep what is said during the sessions confidential, but we cannot guarantee that what you say will not be repeated.*

**VI. Compensation**

b) If you participate in the study, the researcher will give you a $35 Walmart gift card personally.

You will receive this compensation even if you decide not to complete the entire discussion session.

**VII. Voluntary Nature of this Research**

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not
answering any of the questions will have no effect on any benefits you’re entitled to, like your health care, or your employment. **You can withdraw from this study at any time without penalty.**

**VIII. Contact Information**

If you have any questions about this research, you may contact either:

1) Sharon Boothe-Kepple  
*Email:* sharonboothe-kepple@sandiego.edu  
*Phone:* (619) 987-6708

2) Dr. Mary Jo Clark  
*Email:* clark@sandiego.edu  
*Phone:* (619) 260-4574

3) Bobby Saunkeah, RN, Chickasaw Department of Health  
*Phone:* (580) 421-4562

I have read and understand this form, and consent to the research it describes to me. I have received a copy of this consent form for my records.

__________________________________________________________

Signature of Participant  
Date

__________________________________________________________

Name of Participant (*Printed*)

__________________________________________________________

Signature of Investigator  
Date
Appendix C

Demographic Questionnaire

1. Age:
   - 21-30
   - 31-40
   - 41-50
   - 51-64
   - 65 & over

2. Education:
   - Less than High School
   - High School or GED
   - Associate Degree
   - Bachelor’s Degree
   - Graduate Degree

3. Annual Income:
   - Less than $15,000
   - $15,000 to $25,000
   - $26,000 to $35,000
   - $36,000 to $45,000
   - $46,000 to $55,000
   - $56,000 to $65,000
   - More than $65,000
4. Marital Status:
   - Single
   - Married
   - Widowed
   - Divorced

5. Are you currently participating in any kind of health and wellness program?
   - No
   - Yes, please check all that apply
     - Nutrition Counseling
     - Exercise program
     - Weight loss program
     - Pre-diabetic counseling
     - Quit Smoking program
     - Drug or Alcohol cessation support program

6. Tribal Affiliation: __________________________________________
Appendix D

Focus Group Questions

1. What does it mean to be healthy?

2. What do you do to stay healthy? Potential Probe Questions include the following:
   a. You mentioned doing _XXXXXX_. Tell me more about that.
   b. I’m not sure I understand what you mean by _XXXXXX_. Can you tell me more about that?
   c. Is _xxxx_ something that many women do?
   d. Are there things that other women you know of do to stay healthy?

3. What did you do as a child to stay healthy?

4. What did you do as an adolescent to stay healthy?

5. Do you do anything different to stay healthy now?

6. What things keep you from being as healthy as you would like?

7. What things do you do that you think you should do for wellness?
Appendix E

IRB Approval Form

Institutional Review Board
Project Action Summary

Action Date: September 11, 2014  Note: Approval expires one year after this date.

Type:  _New Full Review  _X_New Expedited Review  _Continuation Review  _Exempt Review  ___Modification

Action:  _X_Approved  ___Approved Pending Modification  ___Not Approved

Project Number:  2014-09-009
Researcher(s):  Sharon Boothe-Kepple Doc SON
               Dr. Mary Jo Clark Fac SON
Project Title:  American Indian Women’s Health Perceptions and Health Promotion Behaviors

Note:  We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

Modifications Required or Reasons for Non-Approval

None

The next deadline for submitting project proposals to the Provost’s Office for full review is N/A. You may submit a project proposal for expedited review at any time.

Dr. Thomas R. Herrinton
Administrator, Institutional Review Board
University of San Diego
herrinton@sandiego.edu
5998 Alcala Park
San Diego, California 92110-2492