

6-20-2012

Food Security in the Pine Ridge Indian Reservation: A Nursing Educational Module

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Food Security in the Pine Ridge Indian Reservation:

A Nursing Educational Module

Beth E. Grund

Submitted in partial fulfillment of the

requirement for the degree of

Master of Arts in Nursing

AUGSBURG COLLEGE

MINNEAPOLIS, MINNESOTA

2012

June, 2012

**Augsburg College
Department of Nursing
Master of Arts in Nursing Program
Thesis or Graduate Project Approval Form**

This is to certify that **Beth Grund** has successfully defended her Graduate Project entitled **“Food Security in the Pine Ridge Indian Reservation: A Nursing Educational Module”** and fulfilled the requirements for the Master of Arts in Nursing degree.

Date of Oral defense June 20, 2012.

Committee member signatures:

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Abstract

Assurance of food security has been a continuing goal of world nations for more than 60 years. The educational module that is the focus of this project is designed to increase the awareness of baccalaureate and post-graduate nurses about the health disparity of low food security as a social justice issue. International policy to detail the development of the concept of food security as a human right is examined and then contrasted with current national policy. Additional topics discussed are connections between low food security on health as well as a deficit in nurse knowledge. The educational module focuses on food security as it is experienced by the Oglala Lakota people who live on the Pine Ridge Reservation of South Dakota. Information obtained from the literature review is used to study how structural conditions of society culminate to result in low food security on the reservation. The information uncovered in the literature review for this project has been incorporated into an educational module that encourages creativity by combining visual images, metaphor, poetry, and small group learning along with a PowerPoint presentation. Implications for advanced transcultural nursing practice are reviewed. M. Leininger's Culture Care Theory and Sunrise Enabler provided the basis for interpreting information pertaining to the low level of food security for the Oglala Lakota people of the Pine Ridge Reservation and organizing it into the educational module of this project.

Keywords: disparities, food security, historical trauma, Leininger, Oglala-Lakota

Acknowledgements

The presence of caring and loyal people has blessed me throughout my life. This project would not have been possible without the love and support of my family, especially my husband, Frank. Thank you for your encouragement throughout the process of my nursing education. My parents inspired me to keep going against the odds; their example in overcoming obstacles taught me to persevere with my studies. To KG, my wonderful puppy, you have been with me from the beginning of my journey to become a nurse. The way you curl up by my feet wherever I am working on my laptop makes it easier to keep on moving towards my goal. My friends, Lani, Mary Ann, Sister Helen, and Orapat, deserve special thanks for standing by me throughout this process. You have always been available to listen, read my papers, or offer help with just about anything. Mary, I treasure our friendship. Thanks to my friend, Sally, for agreeing to serve as a reader for my project. It is a time-consuming responsibility and I appreciate it very much. Father Damien, your gift of incomparable music engaged my spirit and permeated my being. None of this would have been possible without the involvement of my professors and other Augsburg staff. Deb patiently read countless drafts of my paper, making thoughtful suggestions each time. My advisor, Cheryl, provided never-ending support throughout my studies and guided my interest in food security into a project that became a reality; as the primary reader for my project, she deserves particular thanks. The help I received from my favorite librarian, Boyd, has always gone above and beyond whatever I expected. And lastly, thanks to Katie, whose talented drawing skills brought my metaphor to life.

I am forever grateful to all of you.

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Chapter One: Introduction

Assurance of food security has been a major goal of the world community for decades. The 1978 Declaration of Alma-Ata declares that the promotion of food supply and proper nutrition is an essential foundation of the basic right of primary health care for all people. The Declaration of Alma-Ata additionally states that primary health care develops from the unique combination of economic strength, distinctive culture, and political nature of a country and its communities; primary health care providers must act to prevent health problems in their communities (World Health Organization, 2009). A logical inference is that health professionals must be knowledgeable about factors influencing food security in order to fully meet the health care needs of their clients. The United Nations also shares the goal of Alma-Ata to assure food security; its number one Millennium Development Goal for 2015 is to eliminate poverty and hunger (United Nations, 2008). Although the primary focus of Declaration of Alma-Ata and the United Nations Millennium initiative is on assuring health in developing nations, health disparities such as poverty and low food security can also exist in wealthy nations such as the United States. Because such disparities are less common in wealthy nations, health professionals may be unaware of the vital role that food security plays in health and fail to consider it during client assessments. This project focuses on exploring the issue of food security as it is experienced by the indigenous Oglala Lakota people living on the Pine Ridge Reservation in South Dakota.

A review of peer-reviewed research as well as the literature and websites of both government and nongovernmental organizations (NGOs) reveals a modification of the vocabulary used to describe hunger. A survey of research conducted by nutrition

professionals Atinmo, Mirmiran, Oyewole, Belahsen, and Serra-Majem (2009), as well as a similar study directed by nutritionists Steyn and Mbhenyane (2008) found that most studies use the appellatives “food insecurity” or “chronic hunger” to define the condition of having limited or uncertain availability of safe and nutritious foods. In contrast, both the United Nations and United States Department of Agriculture (USDA) use the term “food security” to describe hunger (Food and Agriculture Organization of the United Nations, 2008; United States Department of Agriculture, 2009). Nursing professor C. Holtz offers a comprehensive definition that “Food security is having a steady access to sufficient, clean, safe, and nutritious foods for an active healthy life. They are able to acquire necessary foods without having to scavenge or steal” (Holtz, 2010, p. 195). Because food security can be used to describe either a condition of adequate food security or the lack of it, as in “low food security,” it is the phrase used in this project.

Background

My interest in food security has evolved from continuing exposure to new ideas and experiences throughout my studies at Augsburg College. During my first class at Augsburg, a community assessment presentation by a classmate focused on homelessness and hunger in the Phillips neighborhood of Minneapolis. Also, I lived on the Pine Ridge Indian Reservation in South Dakota when I was a teenager, and it was at this time I began to wonder about the connections between food security and health in the lives of indigenous people. When I was in nursing school, practicum time that I spent at a senior center made it clear that low food security exists even in my own well-to-do suburb. There were never any empty places during the daily low-cost lunches, and families, as well as seniors, lined up for the free evening meals held in the former gymnasium.

Additionally, two community practicums at Pine Ridge as well as others in Mexico and Namibia, Africa, underscored the importance of food security as a worldwide public health issue.

According to the United Nations (2008), food security and poverty go hand-in-hand. People who are poor are also often hungry. The Pine Ridge Indian Reservation includes three of the poorest counties in the nation. According to 2010 census data, Shannon County, located entirely within the reservation, is the third poorest county in the United States, with a poverty rate of 47.3%. The two remaining counties are located partially within the reservation and include Jackson County and Bennett County, ranked 23rd and 25th poorest counties in the United States, respectively, with poverty rates of 32.9% and 34.2% (Rapid City Journal, 2012). According to a 2010 Census report, at least 16, 906 Oglala Lakota people live on the reservation (South Dakota Office of Tribal Government Relations, 2010). More than half of the reservation population lives below 100% of the federal poverty level at \$22,050.00 per year for a family of four (South Dakota Department of Health, 2010, p. 182). It is blatantly obvious that at Pine Ridge, at least half of the people are living on the edge of survival.

Events that occurred during my Pine Ridge community practicums underscored the importance of food security in the lives of the Oglala Lakota people living there. The first scenario occurred as I accompanied a public health nurse during my initial Pine Ridge practicum. Before beginning our home visiting in the community, we stopped at a food shelf and loaded the car with bags of commodity food to bring to clients who lived in outlying areas. A few miles later as we passed by a neighborhood center, we noticed two huge packing boxes with a sign that advertised free bread. The blanket of snow

covering the boxes didn't stop us from filling the remaining trunk space with outdated bags of bread. As we distributed the food and bread, every client expressed real gratitude, not only for the groceries, but for the snowy bags of bread. The absence of tire marks in the deep snow surrounding the homes made it clear that people were unable to go out to get provisions. They truly needed the food we brought them.

As I reflect on subsequent experiences during my Pine Ridge practicums, a global change in my thinking about food security in relationship to nursing has occurred. Both of my practicum groups flew into Rapid City, SD, about 90 miles northeast of the reservation. Before we began our drive to Pine Ridge, we stopped at a large Rapid City supermarket and filled our vehicle to overflowing with groceries for the wholesome meals we would cook. When we arrived at the retreat center (where we stay), it was obvious that other groups visiting Pine Ridge had done the same thing. A long wall along the kitchen and social area was overflowing with healthy food staples. Later when we went over to the Sioux Nation, a small supermarket directly across from the retreat center, we congratulated ourselves on having the foresight to shop in Rapid City. Sioux Nation, one of two supermarkets on the reservation, was filled with canned goods and had a small meat counter heavy on prepackaged meats such as bacon, wieners, and cuts of inexpensive meats. Only a tiny section of the store was devoted to fresh fruits and vegetables; the prices of fresh food at Sioux Nation were noticeably more expensive than in Rapid City.

We happily prepared favorite nutritious recipes to share at dinner with our Oglala Lakota friends. It took me almost two years to question the ethical implications of my group's actions. I now realize that we contributed to the pervasive poverty on the

reservation by not shopping at Sioux Nation. Instead of building up the community by supporting a business that provides jobs for the people, we used our dollars to increase the profits of a chain supermarket in Rapid City. It stands to reason that health providers should have the knowledge about how to cook nutritious meals with what is at hand. If all the nursing groups who visit Pine Ridge shopped locally, it is likely that Sioux Nation might increase its offerings of healthy food selections.

Another change in my thinking involved the Sunday worship services we visited at the rural Makasan Presbyterian Church at Oglala, SD. The church women served a fellowship lunch after the service. We nurses enjoyed a bounteous feast; everyone except us had brought dishes of food to share. On my second visit to Makasan Church, just before we were leaving for the church, K. Rupp, pastor of the retreat center, offered to put the food we had prepared for the lunch in her car. She saw our blank looks and found a giant can of baked beans for our contribution to the meal. I felt shame that people who had so little brought food to share in fellowship and that although each of us nurses had put money in the offering plate, we had previously contributed only our presence for the meal.

J. Negstad, a presenter at the 2008 Nobel Peace Prize Forum, emphasized the necessity of developing relationships with people as a first step in making change possible, and that this can only occur when we "...walk *with* [italics added] people on their journey, not do for them" (J. Negstad, personal communication, March 7, 2008). Nursing professors Hartrick Doane and Varcoe similarly stress that entering into relation with clients "...involves walking alongside people/families to facilitate responsive, safe, and health-promoting care" (Hartrick Doane & Varcoe, 2005, p. 255). Although we

nurses had come to Pine Ridge to establish relationships and learn from the Oglala Lakota people, we unthinkingly failed in these instances to join in relationship with them. By purchasing our food in Rapid City, we were unable to share in the challenges faced by the people living on the reservation in preparing nutritious meals, and at that first fellowship lunch, we only took, as so many things have been taken from the people throughout the years. Although it was not our intention, some of our behavior no doubt hindered the establishment of relationships with both individuals and the greater community.

Project Purpose and Significance

The purpose of this project is to design an educational module to be presented to both baccalaureate and post-graduate Augsburg nursing students that explores various dynamics such as socioeconomic and cultural influences that underlie hunger in the Pine Ridge Indian Reservation. The goals of this module are to present a social justice perspective of food as a basic human right and to increase baccalaureate and post-graduate self-awareness of how they perceive food security as a basic human right for vulnerable populations.

Because various nursing immersion classes occur on the reservation and because the required clinical hours of other classes sometimes include an optional Pine Ridge practicum, teaching about the underlying factors of food security will reinforce the existing academic curriculum as well as enhance the practicum experience. Although the project educational module is specific to the Pine Ridge Reservation, it will promote more global thinking by nurses about assuring food security for all of their clients rather than thinking about hunger as an isolated concept. According to the Transcultural

Nursing Society (TCNS) guideline for core curriculum in transcultural nursing programs, it is important for nurses to be knowledgeable about nutritional status for vulnerable population groups (Holtz, 2010).

Nursing research conducted at the University of Massachusetts found that one outcome of curricula enhancements focusing on diverse populations was an increased ability of advanced practice nurses to meet the complex care needs of ethnically diverse clients, families, and communities (Ndiwane et al., 2004). A survey of peer-reviewed literature indicates that some nurses may be unknowledgeable about factors that affect food security for their clients. A university nursing study conducted in Pennsylvania found that new baccalaureate nurses ranked the nutritional needs of people living in poverty as relatively unimportant, that they are unconcerned with helping such clients access local food resources, and that relationships between food and culture are irrelevant (Weigley, 1997). The finding of this study highlights the need for an educational module to provide nurses with a more comprehensive perspective and understanding with regard to food security.

Theoretical Perspective

This project is based on the theoretical foundation of Dr. M. Leininger's Theory of Culture Care Diversity and Universality (2006a). Leininger's theory postulates that health care outcomes for members of diverse cultures are influenced by the worldview and structures of their culture, the cultural context in which they live, and the history and language expressions of the culture. According to Leininger, the insider values of a culture related to caring, health, and well-being are known as *emic* values in contrast to the values of the outside world, which are called *etic* values. The etic understanding of

caring by nurses from the dominant society can clash with the emic values of cultural caring (Leininger, 2006a, p. 14). Leininger states that when nurses have an understanding of cultural care values, beliefs, and patterns, they are more likely to offer culturally appropriate care (Leininger, 2006a, p. 19).

Leininger's Sunrise Enabler (2006a, p. 25) provides a lens through which nurses can examine the multiple factors of cultural and social structural dimensions that influence a specific culture. These dimensional influences include technological factors, religious and philosophical factors, kinship and social factors, cultural values, beliefs, and lifeways, political and social factors, economic factors, and educational factors (Leininger, 2006a, p. 14). Reasoning suggests that these same dimensions also influence specific health challenges experienced by members belonging to that culture. For example, because 60% of Pine Ridge residents live below the poverty level, many people cannot afford the types of food necessary to support nutrition that are adequate to maintain good health (Administration for Children & Families, 2009).

The Declaration of Alma-Ata similarly asserts that the attainment of health, including food resources and proper nutrition, requires the coordinated efforts of numerous social and economic sectors in the community (World Health Organization, 2009). Because Leininger's work reinforces the concept set forth in the Declaration of Alma-Ata that multiple determinants underlie low food security, her Theory of Culture Care Diversity and Universality (2006a) provides an appropriate framework for this project. An examination of Leininger's Sunrise Enabler tool reveals that there is a reciprocal connection between the dimensions that affect the health of a culture and the transcultural care actions of nurses. These actions include cultural care

preservation/maintenance, culture care accommodation/negotiation, and culture care repatterning/restructuring (Leininger, 2006a, p. 8). Because food security and adequate nutrition are essential to the health of a community such as the Pine Ridge Reservation, education for nurses about this issue is vital to the formation of nursing actions that successfully address health issues experienced by this community.

Summary

Food security is not only a basic human right that has been affirmed by numerous organizations worldwide, it is a necessary foundation for health (United Nations, 1948; United Nations, 2008; World Health Organization, 2009). Although a primary responsibility of nurses is to protect and promote the health of their clients (American Nurses Association, 2001, p. 4), not all nurses are aware of the critical connection between food security and health (Weigley, 1997). This lack of knowledge demonstrates a need for an educational module that explores the relationship between food security and health.

The educational module proposed in this project focuses on the Pine Ridge Indian Reservation through the use of Leininger's Sunrise Enabler tool (Leininger, 2006a, p. 25). Exploring the topic of food security in this way has the potential to benefit nursing practice. This module is likely to enhance the understanding of nursing students about the health issues they encounter during educational experiences on the Pine Ridge Reservation. When nurses have increased awareness of the connection between food security and health, their interventions for specific health problems are likely to be more successful. Although Augsburg nursing students and the Oglala Lakota people living on Pine Ridge Reservation are the focus of this module, nurses' increased understanding of

this issue is likely to benefit diverse nursing clients living in other communities (Ndiwane et al., 2004, p. 118).

Chapter Two uses the Scholarship of Integration process to review literature relevant to the formation of the educational module. This method involves gathering material from diverse fields of knowledge in order to achieve an enhanced perspective of a topic (Boyer, 1990, p. 18).

Chapter Two: Review of Relevant Literature

This chapter is devoted to a review of literature pertinent to the formation of an educational module about food security experienced by the Oglala Lakota people living on the Pine Ridge Reservation in South Dakota. The literature review utilizes a process known as Scholarship of Integration to obtain the information used to create the module. Scholarship of Integration promotes the achievement of fresh insight into an existing concept by creating connections between diverse bodies of knowledge. This allows for an issue to be examined in relationship to its larger context (American Association of Colleges of Nursing, 2005). Exploration of the issue of food security on the Pine Ridge Reservation for this project represents Scholarship of Integration because it includes information obtained from the peer-reviewed literature of academic disciplines that include nursing, sociology, anthropology, and nutrition science. Additional sources of information included community practicum observational reflections, government and NGO websites, and conversations with Oglala Lakota cultural representatives. The focus of this project, the design of an educational module to be presented to nursing students, is an example of the Scholarship of Integration process; one outcome of Scholarship of Integration is presentation of information to others (American Association of Colleges of Nursing, 2005).

A caveat concerning the literature review for this project is that the majority of scholarly literature uncovered during the review was authored by academic professionals who appear to be members of the dominant mainstream culture as opposed to representatives from the Native American culture. Although the author tried to seek out literature relevant to the topic written from the emic (insiders) perspective, it is possible

that some research findings cited in this project represent the etic (outsiders) point of view (Leininger, 1998, p. 47). In order to truly understand the health disparity of low food security on the Pine Ridge Reservation, there is an urgent need for increased numbers of Native American researchers in diverse academic fields to explore this important topic.

International Policy

The Universal Declaration of Human Rights, a non-legally binding agreement adopted by the United Nations General Assembly in 1948, is considered to be the foundation of international human rights law. The Declaration of Human Rights states in Article 25 that all human beings have a right to a standard of living that includes food sufficient to ensure good health (United Nations, 1948). The International Covenant on Economic, Social, and Cultural Rights (ICESCR), a legally binding treaty stemming from the Declaration of Human Rights, was adopted by the United Nations in 1966 and went into force in 1976. ICESCR defined the right to health as including the right to safe water, food, and nutrition and required that signatory nations undertake steps to provide the full attainment of these rights within their population (World Health Organization, 2006).

The 1978 Declaration of Alma-Ata further affirms the right of all people to primary health care, a right that includes access to a food supply that ensures proper nutrition for health (World Health Organization, 2009). The Rome Declaration on World Food Security, ratified by the World Food Summit in 1996, similarly confirms that food is a basic human right (World Food Summit, 1996). The United Nations has made little progress since the Universal Declaration of Human Rights in 1948; relieving poverty and

hunger is its highest priority Millennium Development Goal for 2015 (United Nations, 2008). Despite international efforts, more than 860 million people worldwide experience low food security as part of their everyday lives (Food and Agriculture Organization of the United Nations, 2008).

Global thinking about food security has evolved since the Declaration of Human Rights in 1948. Article 25 of the Declaration was concerned with a supply of food that was adequate to relieve hunger (United Nations, 1948). By the time of the World Food Summit in 1996, the concept of food security had grown to include more than just the availability of food. The resulting Rome Declaration on World Food Security states that “Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996). The Rome Declaration also maintains that other influences including climate change, conflicts, environmental degradation, and natural and man-made disasters interfere with both food availability and access (World Food Summit, 1996).

National Policy

Social rights, such as the rights to economically and physically accessible food and a safe water source, are variously called “positive rights,” “basic rights,” or “basic human rights.” Because the expression “basic human right” is readily understandable, it is the phrase used in this paper. Although low food security also exists in the United States, it signed but refused to ratify ICESCR, which required participating nations to make sure that all citizens have access to safe water, food, and nutrition. The United States was also one of only two countries attending the 1996 World Food Summit that

signed but refused to ratify the policy that food is a fundamental human right and that each country who attended the Summit would act to reduce world hunger by half, by 2015. Some policy analysts believe that this is because the United States did not want to be held legally accountable for this basic human right (Chilton & Rose, 2009, p. 1204). Food security is nonetheless an important national priority. The U.S. currently spends more than \$50 billion yearly on food support for its citizens. Some of these programs include the National School Lunch Program, Program for Women, Infants, and Children, and the Supplemental Nutrition Assistance Program, popularly known as Food Stamps (Chilton & Rose, 2009, p. 1203).

There has been little improvement since the U.S. government first began to monitor national food security levels in 1995. Disparities between population groups have remained unchanged since 1998 (Chilton & Rose, 2009, p. 1204-1206), and overall food security has decreased. In 2004, lack of food security was experienced by 11.9% of Americans (Gunderson, 2008, p. 191). The Healthy People 2020 Nutrition and Weight Status target goal is to reduce the incidence of household food insecurity from 14.6% in 2008 to 6% in 2020 (Healthy People 2020a, 2012).

The Let's Move! campaign sponsored by First Lady Michelle Obama is a comprehensive health initiative that seeks to lower child obesity rates within a generation by promoting healthy diets and increased activity. A stated objective of her project is to ensure that every family will have access to healthy and affordable food, a goal that will also help to assure food security for U.S. children (Let's Move!, 2010). In late 2011, the program expanded into "Let's Move! in Indian Country" in recognition of the differences that exist between cultures related to food and nutrition (U. S. Department of

the Interior, 2011). Although the main focus of Let's Move! is to promote healthy diets and increased activity in children and teenagers, the initiative seeks to expand access to nutritious and reasonably priced food in low income areas through the Healthy Food Financing Initiative (HFFI). The goal of HFFI is to increase food security in low income areas with limited access to food through the development of new food businesses and farmers markets as well as the enhancement of healthy food offerings by existing grocery markets, corner stores, and other small businesses (United States Department of Agriculture, 2011b).

Low Food Security and Health

A strong correlation exists between poverty and low food security; a primary determinant of low food security is lack of economic access to food (United Nations, 2008; World Food Summit, 1996). Living with low food security over sustained periods of time has negative effects on health due to malnutrition, a condition that results from an imbalance between nutrients and body requirements (Atinmo, Mirmiran, Oyewole, Belahsen, & Serra-Majem, 2009, p. S41). Malnutrition can be manifested as undernutrition, a deficit of food intake or protein, or overnutrition, an excess of calories or certain nutrients such as fats, carbohydrates, and proteins (The Merck Manual Home Health Handbook, 2007). Public health nursing research finds that people in developing countries of the world are more likely to experience health problems related to undernutrition while people who live with low food security in the United States, especially children, deal with health issues related to overnutrition (Worobey, Pisuk, and Decker, 2004, p. 122). The USDA attempts to educate healthy eating for people from the mainstream culture as well as people from other cultures, such as the Hispanic and Native

American communities. The educational programs of My Plate and My Food Pyramid (United States Department of Agriculture, 2011a) seem to suggest that people generally have access to healthy foods, but Dr. A. Drewnowski, Director of the Nutritional Sciences Program and Professor of Epidemiology and Medicine at the University of Washington Seattle, contends that poverty promotes obesity because people experiencing poverty have unequal economic access to nutritious foods. People substitute less expensive foods that are nutritionally poor but rich in calories such as saturated fats, sugars, and refined grains for healthy, although more expensive alternatives such as fresh produce, lean meats, and dairy products (Drewnowski, 2009, p. S36). Drewnowski's research confirming that people living in poverty cannot afford to eat healthy validates the assertion of the Declaration of Alma-Ata that food security includes access to healthy and nutritious foods (World Health Organization, 2009).

A newly released study by the USDA disagrees with Drewnowski's thesis that healthy foods cost more than foods that are poor in nutrition. Study authors Carlson and Frazao (2012, p. iii) evaluated the cost of both healthy and less healthy foods according to three criteria: the price per calorie (energy), the price per edible gram, and the price per average portion size. Study results found that the cost of food varied greatly according to the method of measuring food cost. When researchers calculated food cost according to price per calorie, they found that energy poor healthy foods are more expensive than energy rich foods that are poor in nutrition (Carlson & Frazao, 2012, p. 18). In contrast, healthy foods were found to be cheaper than foods poor in nutrition when both price per edible gram and price per average portion size were used to determine food costs (Carlson & Frazao, 2012, p. 24). Although an Associated Press announcement of study

findings seems to suggest that almost everyone can afford a healthy diet, the study failed to take into account the higher cost of obtaining healthy food in areas such as the Pine Ridge reservation that are underserved by food markets (Associated Press, 2012, p. A5). Drewnowski rebuts the findings of Carlson and Frazao, stating that healthy diets are usually more expensive (Associated Press, 2012, p. A5).

Obesity is a strong risk factor for the development of diabetes. National statistics for 2011 reveal that 8.3% of the population has diabetes; up to three times as many people are either undiagnosed or have prediabetes (American Diabetes Association, 2012). Although obesity is strongly correlated to the development of diabetes, an analysis of the National Health Examination and Nutrition Examination Survey by epidemiology and medical researchers found that a connection exists between low food security and diabetes that is independent of obesity (Seligman et al., 2007, p. 1021). Having diabetes can cause a cascade of other serious health problems that include heart disease and stroke, high blood pressure, blindness, kidney disease, neuropathy, and amputation (American Diabetes Association, 2012). A review of cancer research studies reveals that 30-40 percent of cancer incidence worldwide is linked to unhealthy diets and obesity (Popkin, 2007, p. 61).

The connection between overnutrition and low food security can also result in serious health consequences for children. Medical researchers, Must and Strauss, found that children who experience obesity may encounter both immediate health problems such as diabetes, liver disease, gallbladder disease, sleep disorders, and social discrimination as well as long term health consequences such as heart disease (Must & Strauss, 1999, p. S2). Children may also experience delays in both mental and behavioral

development. Additionally, the stress of social discrimination can lead to a loss of self-esteem with potential negative effects on school performance and social relationships (Must & Strauss, 1999).

The presence of low food security has effects that reach far beyond the health status of a single individual. Children who live in households where there is low food security are also at risk for poor development and decreased success in school. This leads in turn to lower overall education attainment levels, resulting in a decrease in employment opportunities and a lack of income. A self-perpetuating cycle that promotes poverty and low food security ensues (Atinmo, 2009, S40; Chilton, 2009, p. 1206). First Lady Michelle Obama underscores the critical role of food security in assuring the health of the nation, saying that, “The physical and emotional health of an entire generation and the economic health and security of our nation is at stake” (Let's Move, 2010, para.1).

Nursing Role

The Declaration of Alma-Ata states that primary health care, including promotion of food security and proper nutrition, relies on a variety of community and health care workers, including nurses. It recommends that both community workers and traditional health care professionals should be “suitably trained socially...to respond to the expressed health needs of the community” (World Health Organization, 2009, section VII, para.7). The TCNS has pledged to support human rights as recognized by the United Nations (Miller et al., 2008, p. 5); this includes the right to physical, economic, and cultural food security (World Health Organization, 2009). In keeping with this philosophy, the TCNS core curriculum guide includes education about nutrition status in vulnerable populations (Holtz, 2010). Although the American Nurses Association (ANA)

does not have a specific position statement addressing food security, its Code of Ethics states that nurses have a duty to be mindful of general health issues such as world hunger (American Nurses Association, 2001, p. 23).

Even though promoting adequate nutritional status for clients is considered to be a primary nursing responsibility, a review of scholarly literature revealed that most research has been done by professionals in the fields of public health, nutrition science, medicine, and cultural anthropology. A review of the annals in the *Journal of Transcultural Nursing* found only a handful of studies that addressed how low food security affects nursing practice. This knowledge is important for nurses in order to identify health barriers, such as low food security, in order to achieve successful client outcomes (Tscholl & Holben, 2006, p. 335). Although nutrition is a necessary foundation of health, scholarly nursing literature in both the United States and other countries reveals a knowledge deficit in the areas of food security and nutrition.

A University of Pennsylvania study attempted to find what types of nutritional knowledge recent baccalaureate nursing graduates considered to be most important in their practice; most nursing graduates had taken a limited nutrition course as part of their studies. This study survey of more than 300 graduate nurses found that the highest priority was assigned to activities surrounding feeding tubes or recording intake and output. The nurses surveyed prioritized the nutritional needs of people who live in poverty or who have a disability as somewhat unimportant. The item that received the lowest ranking on the questionnaire concerned the relationship between food and culture (Weigley, 1997, p. 12). In the same study, the nurses ranked the importance of various issues related to nutrition; the topic of world food supply received the 2nd lowest rating

(Weigley, 1997, p. 14). Although Weigley's study results may reflect the priorities of new nursing graduates, the study indicates a need for more extensive education about the connections between food security and health. A review of international nursing literature by British nursing researchers Fletcher and Carey (201, p. 618), supported the findings of Weigley (2007), that nurses rank nutrition as a concern of lesser importance.

A study of 28 associate degree nursing students who had participated in a practicum on the Pine Ridge Indian Reservation identified four areas of knowledge that the students considered to be central to provide culturally congruent care to the reservation population. One topic, health factors and dietary habits, was mentioned by 15 students (Wittig, 2004, p. 57). The students surveyed identified diabetes as being the priority health issue on the reservation, and stated that nurses should be aware of the risk factors associated with diabetes in order to provide preventive health teaching to clients and that nursing assessments for diabetes risk should include dietary habits, nutrition knowledge, and lifestyle (Wittig, 2004, p. 58). The students did not mention client assessment for either physical or economic access to healthy foods, even though teaching about proper nutrition is of critical importance in health education about diabetes. Their failure to include low food security as a primary diabetes risk indicates a need for nursing curriculums to include education about the relationship between food security and health.

Research conducted jointly by nursing and dietetic professionals to measure the knowledge of Ohio nurse practitioners about the food access of their clients discovered that only a third of the nurse practitioners surveyed thought that it was important to be knowledgeable about food security. Although the nurse practitioners surveyed may have had little exposure either to nutrition science or to clients who experienced low food

security, the extent of unawareness concerning food security revealed by the study supports the need for nurse education about this topic (Tscholl and Holben, 2006, p. 339).

A qualitative study by South African public health researchers attempted to discover why children who were hospitalized for severe malnutrition died in numbers that were disproportionately large compared to children who died from other causes. A survey of the attitudes of nurses towards children with severe malnutrition, a leading cause of death of children in South Africa, revealed that nurses lack knowledge about the underlying causes of malnutrition. The nurses believed that the main cause for malnutrition was inadequate feeding by parents and caregivers and blamed the parents and caregivers for neglecting the children. Due to their belief that these children were less valued, the nurses lowered the level of care they provided and failed to follow the international World Health Organization (WHO) standards for care. The study authors found that after the nurses were educated about causes of malnutrition they expressed more compassion towards the children and implemented care that was in keeping with WHO guidelines (Puoane, Sanders, Ashworth, & Ngumbela, 2006). Although the research by Puoane et al. (2006) took place in South Africa and involved only 66 nurses, results suggest that a knowledge deficit about low food security and its causes exists worldwide.

A survey of international scholarly literature by an Australian dietician found that there is a failure to diagnose and treat malnutrition in people who are hospitalized. The study revealed that while the health policies of many nations provide for nutrition screening, the policies are not necessarily followed. The author found that one cause for failure to screen patients is a knowledge deficit about the causes of malnutrition. She also

stated the importance of nutrition screening by public health nurses because most people who live with malnutrition are not hospitalized (Charlton, 2010). This study reinforces a general need for nurses to be educated about food security.

The general lack of awareness by nurses and in nursing practice of the role that food security and its influences on nutrition and health indicates an unfilled need for nursing education. Tscholl and Holben (2006, p. 336) noted a lack of literature on the topic of food security and client care. Weigley (1997, p.8) noted a similar absence in the literature concerning nursing care and nutrition.

Public Health Nursing

Although the results of the literature review for this project revealed a consistent knowledge deficit about food security that is present in diverse groups of nurses, I was unable to find any research in the literature review that focused on the knowledge of public health nurses concerning the connections between food security and health. Even though none of the research was either conducted by or involved this group of nurses, public health nurses are likely to have the greatest understanding of the importance of food security as related to health. Indeed, public health nurses on the Pine Ridge Reservation are known to have a deep concern with food security for their clients. Long term relationships with their clients combined with regular home visits provide an intimate view of the reciprocal connections between living environment, food security, and health. During home visiting, the Pine Ridge nurses demonstrated their involvement with this issue by assessing the food needs of each client. They brought bags of groceries to families who either could not afford groceries or lacked transportation to reach one of the two supermarkets on the reservation.

The Pine Ridge nurses also help to assure food security during community events that raise awareness of health issues such as the health walk for National Native HIV/AIDS Awareness Day held March 20, 2009. The poster (see Appendix A) for this event advertised in large font that participants would enjoy a free lunch afterwards (OST Health Education, OST Public Safety, Public Health Nursing, CHR Program, & Diabetes Programs, 2009).

This spring, it was brought to my attention through a professional nursing network that a public health nurse on the reservation is collaborating with a group of elders on a project that will add fresh vegetables to their diets. The nurse provides critical assistance and support to an elder beading group that uses donations to fund materials for their project. Elders are using the profits from selling the necklaces and other items they make to fund the purchase of seeds and other materials to start vegetable gardens. This project promotes food security through the empowerment of elders to take ownership of their own health. When it comes to matters of food security and health, the Pine Ridge public health nurses serve as a superior example to the greater population of nurses.

Pine Ridge Indian Reservation

The Oglala Lakota are a Native American people indigenous to South Dakota who now live on the Pine Ridge Reservation. Just a few generations ago, their traditional way of life was that of a hunter gatherer society that relied on the buffalo to provide for most physical needs including food and shelter. Wild plants provided an additional source of nutrition and medicine (Pickering Sherman, Van Lanen, & Sherman, 2010, pp. 512-13). Although the Lakota once lived all across South Dakota as they followed the buffalo, their territory became increasingly smaller as White settlers in search of better

opportunities began to stake land claims in Dakota Territory. The Federal government acquired land for White settlers by making treaties that exchanged Dakota land in return for guarantees of financial payments, other measures of support, and vast tracts of land, including the sacred Black Hills, that would enable the people to continue their traditional lifeway. None of the treaties were honored by the Federal government. A trail of broken promises by the Federal government began within a few years of signing the first treaty in 1851.

The Lakota people were continually pushed back from negotiated lands. The discovery of gold in 1874 by General Custer's expedition to the Black Hills and treaties in 1876 and 1889 resulted in the relocation of Lakota people to a marginal land area insufficient to support their ancestral way of life (Brave Heart, 2003, p. 7). These changes resulted in a loss of food security for the Lakota people; their traditional sources of nutrition were no longer available and the majority of the land was unsuitable for farming. No longer able to follow the buffalo, the lifestyle of the Lakota no longer required as much physical activity. Lakota people were forced to depend on the unfamiliar and less healthy foods of the White culture (Kovacs & Ip, 2011, p. 36).

Historical Cultural Trauma

In order to eliminate Native American culture and replace it with European cultural values, a government policy beginning in 1879 and lasting more than three decades removed children from their homes and forced them to attend government boarding schools, sometimes for years at a time (Child, 2012, pp. 122-124). Many children experienced starvation and sexual abuse, they were forbidden to speak their own language, practice their native religion, or keep their traditional Lakota names. They ate

food from the mainstream culture. Generations of children grew up without the experience of parental role models (Yellow Horse Brave Heart, 1999, p. 112). Although this policy was said to end in the 1950s, a visit to the reservation during the latter half of the 1960s revealed that many of the Pine Ridge children still attended government boarding schools. A Hunkpapa/Oglala/Hohwoju Lakota social work professional at the University of Denver states that the abusive practices associated with boarding schools continues to the present day in some schools, additionally citing personal experience of mistreatment (Yellow Horse Brave Heart, 1999, p.112). For many years lasting at least into the 1920s, the boarding school lifestyle was unhealthy both physically and emotionally. Many of the schools were overcrowded, and the policy of enrolling children, regardless of health, in addition to the sharing of towels and water, contributed to epidemics of tuberculosis and trachoma. As a result, countless numbers of children either died or suffered a lifetime of blindness (Child, 2012, pp. 130-131). The attempt to destroy Lakota culture with the boarding school policy also contributed to the decrease of food security in succeeding generations. Children lost their memory of the Lakota language and were unable to communicate with their elders. The demise of the Lakota language directly influenced the loss of ancestral knowledge, some of which included nutrition and how to live the healthy lives of their forebears (Brave Heart, 2003, p. 8).

Historical trauma is defined as the emotional and psychological injury of a people resulting from massive cumulative group trauma which has occurred across the generations (Brave Heart, 2003, p. 7). According to Yellow Horse Brave Heart (1999) the combined experiences of the Lakota people living at Pine Ridge bear striking similarities to the Jewish Holocaust and qualify as genocide as defined by the United

Nations (1997). These experiences include the Wounded Knee Massacre in 1890, starvation and separation from tribal lands, and the compulsory education of generations of children at boarding schools designed to obliterate any traces of culture (Brave Heart, 2003; Child, 2012). According to nursing researcher Ludwig-Beymer (2008), historical and individual experiences of this nature influence almost every situation in which a person interacts with both community institutions and other individuals. It follows that nutrition and food security of the Lakota people living on the Pine Ridge Reservation in South Dakota is affected by historical trauma as well. The devastating loss of their traditional healthy diet and lifestyle as well as forced relocation to a remote area lacking both economic opportunity and physical access to healthy food have contributed to a loss of food security for the Oglala Lakota people living there. The present generation continues to experience the consequences of historical trauma, as the stories are passed down through elders to the children (Dodgson & Struthers, 2005, p. 341).

Poverty and Low Food Security

The literature review for this paper revealed little comprehensive research concerning the extent of food insecurity experienced by American Indians nationwide; this finding was supported by economics researcher Gunderson, (2008). The first-ever analysis of data concerning lack of food security of this population on a national level concluded that American Indians experience a higher incidence of low food security than non-American Indians (Gunderson, 2008, p. 212).

Nowhere in the United States is the relationship between poverty and health inequities more evident than on the Pine Ridge Reservation of southwestern South Dakota. Statistics show that the level of poverty at Pine Ridge is increasing. Although

Shannon County, located entirely within the reservation, was the eighth poorest county in the United States in 1980, it is now the third poorest county in the nation (Rapid City Journal, 2012). Because the unemployment rate on the reservation is about 88%, many people lack money to pay for food and other services necessary for good health (Administration for Children & Families, 2009). A Pine Ridge study by cultural anthropologists Sherman et al. (2010) found that 48% of study participants reported having economic hardships. Fifty percent of the subjects in this study additionally reported not having enough food at some time during the previous year. A comparison to the general United States population illustrates the extent of hunger on the reservation; only 14.5% of households nationally reported low food security during 2010 (Coleman-Jensen, Nord, Andrews, & Carlson, 2011).

Although the average life expectancy for average Americans is 76.9 years, for Native Americans living in the Aberdeen Area of the Indian Health Service, which includes the Pine Ridge Reservation, the average life expectancy is 64.3 years. To make matters worse, an Oglala Lakota man living on the Pine Ridge Reservation has a life expectancy that is the second lowest in the entire Western Hemisphere, 56.5 years (Pickering, 2004, p. 113).

As described in this chapter, obesity is closely related to both poverty and low food security (Drewnowski, 2009, p. S36). The obesity rate for South Dakota Native Americans is 74.5% as compared to 66% of American Indians overall (Sherman et al., 2010). Sherman et al. (2010) further found that the Pine Ridge Oglala Lakota household rate of incidence is 51.1% for diabetes, 45.7% for hypertension, 25% for heart disease, and 16% for cancer. Each of these health disparities stem from obesity, a primary health

disparity that shares a direct connection with poverty and low food security. Visits to the local hospital during my 2009 and 2010 practicums revealed numerous adults of all ages who were missing legs and feet. The nurses who conducted the hospital tours stated that almost all of the amputations were related to complications of diabetes. The self-perpetuating cycle of poverty, loss of food security, and poor health described by both Atinmo et al. (2009, p. S40) and Chilton and Rose (2009, p. 1206) seems evident in the story of the Pine Ridge Reservation.

Theoretical Framework

Madeleine Leininger's Theory of Culture Care Diversity and Universality (2006a) provides the theoretical framework that underlies the educational model for this project. Leininger's theory analyzes caring as it is communicated through cultural values and beliefs in order to promote health for members of the culture. During an interview regarding the Culture Care Theory, Leininger explained culture as, "...the learned, shared, and transmitted values, beliefs, norms, and lifeways of a particular culture that guides thinking, decisions, and actions in patterned ways" (Wallace & Coberg, 1990). According to Leininger, culture is universal throughout the world and every individual lives within a culture. She further stated that each culture expresses caring for others in a unique way and that these values influence the thoughts and actions of the members of the culture (Wallace & Coberg, 1990).

Sunrise Enabler Tool

The Sunrise Enabler tool (see Figure 1) was developed by Leininger to provide a holistic representation of the components of her theory in order to help nurses study the big picture of how the interrelatedness of the social and cultural structure dimensions

influences the care patterns and expressions of a culture that guide the care decisions and actions of nurses (Leininger, 1988a, pp. 156-157). Although Leininger’s Sunrise Enabler is not a theory, it provides a way for nurses to search out various factors that relate to the health and wellbeing of their clients, especially clients who differ from the nurse in culture, class, religion, or economic status (Anderson et al., 2010, p. 319S).

Leininger’s Sunrise Enabler to Discover Culture Care

Culture Care

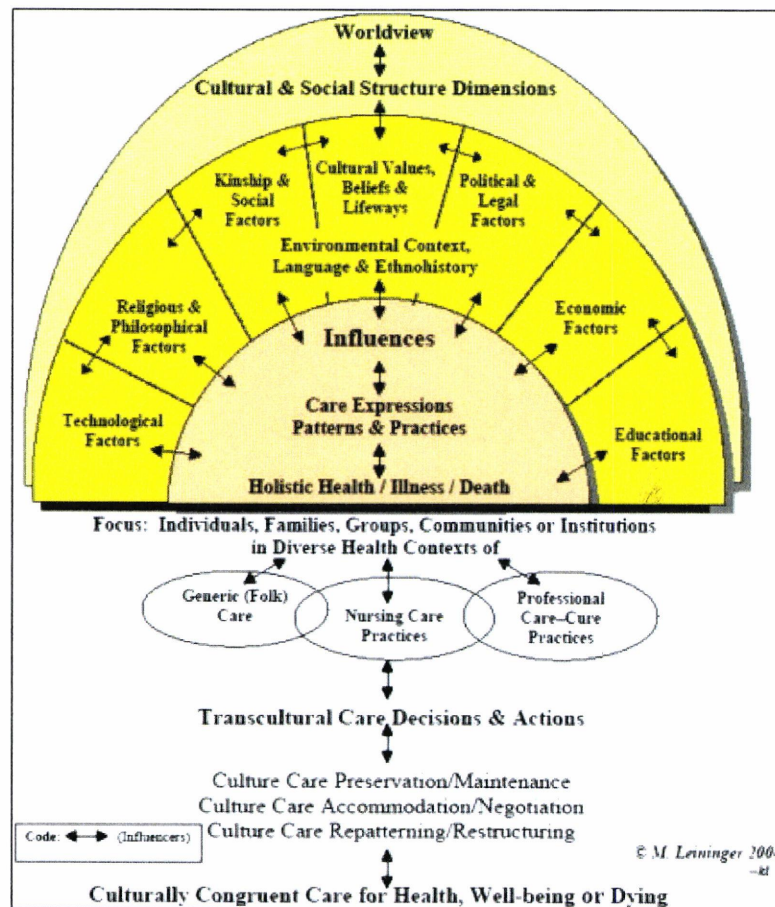


Figure 1. M. Leininger’s Sunrise Enabler¹

¹ From *Culture Care Diversity and Universality: A Worldwide Nursing Theory* (page 25), by M. M. Leininger and M. R. McFarland, 2006, Sudbury, MA: Jones and Bartlett Publisher. Copyright 2006 by Jones and Bartlett, Inc. Reprinted with permission (see Appendix B for permission letter).

In order for a nurse to provide care that is culturally meaningful, it is essential to understand the symbolism underlying cultural concepts and practices related to caring for others. Nurses can gain a greater understanding of the multiple factors influencing care within a particular culture through the use of the Sunrise Enabler (see Figure 1).

Leininger has developed three modes of action to help nurses integrate generic/folk care (emic knowledge) with professional care practices (etic knowledge): cultural care preservation/maintenance, culture care accommodation/negotiation, and culture care repatterning/restructuring (see Figure 1). Leininger (2006a, p.8) characterizes cultural care preservation or maintenance as the use of nursing actions that assist the client to retain emic care values promoting health. She defines cultural care accommodation or negotiation as nursing actions that adapt meaningful cultural practices to obtain satisfying health outcomes (2006a, p.8). In cultural care repatterning or restructuring, a nurse works with a client to restructure harmful practices to achieve a healthier life while remaining respectful of the individual's beliefs (Leininger, 2006a, p. 8). It is Leininger's thesis that because generic/folk caring values are combined with professional care knowledge, using these modes of action to guide nursing actions results in the delivery of health care that is both satisfying and beneficial to clients (Leininger, 1998, p. 48). Because a major public health goal of Healthy People 2020 is to eliminate health disparities among racial and ethnic groups by 2020, culturally competent nursing care is of crucial importance (Healthy People 2020, 2012b). Leininger's Culture Care Theory provides a guide for nurses seeking to provide care that is meaningful to their clients.

Syndemics Model Concept

The use of Leininger's Culture Care Theory and Sunrise Enabler (see Figure 1) as an appropriate theoretical framework for this project is supported by Milstein's (2008) concept of syndemics. Syndemics is a 21st century scientific concept based on the idea that health problems within a population share several interrelated connections with other aspects of society and therefore one must look beyond specific health issues to examine the underlying conditions. The traditional Western model of health regards health problems as discrete entities with specific causes (Fontaine, 2011, p. 4). In contrast, the syndemics model of thinking embraces a holistic orientation that is shared by indigenous cultures (Fontaine, 2011, p. 9). Because the syndemics orientation encompasses a multidisciplinary approach that searches out the relationships between both societal and environmental factors, it has the potential to be more successful than a strict epidemiological approach in solving complex health issues (Milstein, 2008).

Although syndemics is most often used to explore the health problems of urban populations, reason dictates that it would be equally relevant for investigating factors that underlie the condition of low food security existing in the Pine Ridge Indian Reservation of South Dakota. The global perspective of the syndemics model could have a positive impact on the health issue of low food security in Pine Ridge because it looks for solutions based ideas that have not been previously considered (Milstein, 2008).

Conceptual Approach

Leininger's Sunrise Enabler (see Figure 1) provides a critical lens that sheds light on the social context of health disparities, such as low food security, and highlights the structural conditions of society that influence them, such as power, economics,

oppression, and culture (Hartrick Doane & Varcoe, 2005, pp. 60-61). The Sunrise Enabler shares similarities to syndemics theory because it examines the reciprocal connections between individual health, the worldview of a culture, as well as the social and environmental context in which it is located. These reciprocal connections influence both expressions of care within the culture and how the culture perceives the giving of care by nurses (Leininger, 2006a, p. 25). Reason infers that because health issues such as food security are influenced by disparate multiple factors, successful solutions must also involve a syndemics approach to problem solving. Dietetics researchers Tscholl and Holben (2006, p. 340) recommend collaboration between nutrition science, social work, medical, and nursing professions to provide food security education, an example of a syndemics orientation.

Similarly, the Let's Move! health initiative implies a syndemics approach, stating that the problem of child obesity can only be solved through a multi-faceted approach that includes not only parents, schools, and health care professionals, but also the entire spectrum of government, business, and the community (Let's Move!, 2010). Pine Ridge public health nurses also use a syndemics strategy to address health problems by involving the community through the use of nursing interventions such as collaboration, coalition building, and community organizing (Public Health Nursing Section, 2001).

Summary

Low food security is a serious problem both in the United States and throughout much of the world. Although every international policy addressing hunger since the United Nations Declaration of Human Rights in 1948 has affirmed that food is a basic human right, marginalized populations living in poverty are currently at risk for low food

security. It is a ubiquitous health problem that is experienced at individual, family, community, and national levels. The choice to purchase healthy foods is not available to all people. Lack of money, unavailability of food, or food that is incompatible with preferences of those who belong to a specific group or culture prevents millions of people from enjoying a diet that promotes health; society denies them the opportunity to make healthy choices. These vulnerable populations are at risk for illness due to reasons beyond their control (World Food Summit, 1996).

Although the developing nations of the world tend to experience health problems stemming from undernutrition as a result of low food security, it is usual for people living in the United States to develop health problems associated with overnutrition (Drewnowski, 2009). The most common health issue connected to low food security in the United States is that of obesity, a condition that is linked to numerous serious diseases including diabetes, heart disease, and cancer (American Diabetes Association, 2012; Popkin, 2007, p. 61). Additionally, recent research has shown a direct link between low food security and diabetes that does not involve obesity (Seligman et al., 2007, p. 1021). The effects of low food security upon children can cause a lifetime of problems that promote a self-perpetuating cycle of poverty, hunger, and associated health issues in succeeding generations (Atinmo, 2009, S40; Chilton, p. 1203).

The general lack of knowledge concerning food security and underlying factors of nutrition by nurses revealed in this literature review suggests an unmet need for nurse education about this topic. If nurses are knowledgeable about food security, they are more likely to regard it as a priority health issue and begin assessing the nutritional needs of their clients. This multi-faceted topic is relevant for nurses because they are likely to

encounter such clients regardless of practice setting. A limitation of research on the topic of food security as experienced by Native Americans is that the vast majority of studies have been conducted by professionals from outside the discipline.

In the last 160 years, the Oglala Lakota people who live on the Pine Ridge Reservation have had their traditional way of life and much of their culture stripped away by the dominant culture. The forced historical actions that destroyed their hunter gatherer lifestyle and forced them to live in poverty on reservations have culminated in a loss of food security that has resulted in a high percentage of obesity in their community. A cascade of health disparities linked to obesity has followed. These disparities include high rates of diabetes, heart disease, and cancer (Sherman et al., 2010). The chain of broken promises to the Oglala Lakota people has resulted in troubling health consequences that have extended through the generations.

Leininger's Sunrise Enabler (see Figure 1) provides a critical lens for nurses to examine the underlying causes of food security on the Pine Ridge Reservation. Leininger's Culture Care theory (2006a) uses an approach that shares similarities with Milstein (2008); Milstein's theory of syndemics gathers knowledge from multiple bodies of knowledge to gain new understanding of a health issue. The syndemics approach is especially relevant as it pertains to food security in relationship to health of the Oglala Lakota people who live in the Pine Ridge Reservation. The literature review conducted for this project reveals that research from diverse disciplines is needed to understand the health issue of food security as well as confirming the validity of Leininger's Culture Care Theory as the theoretical basis of this project.

Chapter Three focuses on the process of designing an educational module about food security in the Pine Ridge Reservation. Module content and implementation are additionally detailed. This chapter also discusses how Leininger's Sunrise Enabler tool (see Figure 1) supports this module by illuminating the connections that have resulted in low food security on the reservation.

Chapter Three: Development of the Project Module

This chapter describes the creation of an educational module for baccalaureate and post-graduate nursing students about food security for the Oglala Lakota people who live in the Pine Ridge Indian Reservation of southwestern South Dakota. Both the 2015 United Nations Millennium Development Number One Goal, to eliminate poverty and hunger, and the United States Healthy People 2020 objective to reduce the incidence of household food insecurity by more than half, provide a compelling rationale for an educational module dealing with this issue (Healthy People 2020a, 2012; United Nations, 2008). The need for enhanced nurse education about the connections between low food security and health has been supported by researchers worldwide, including Charlton (2010), Puoane et al. (2006), Tscholl and Holben (2006), and Weigley (1997). The goal of this module is to increase nursing students' knowledge about food security in vulnerable populations such as the Oglala Lakota of Pine Ridge as well as to encourage an attitude of social justice for their nursing practice.

Definitions of Terms and Concepts

Definitions of concepts and terms in this module are necessary in order to assure that both the presenter of the module and nursing students have a common understanding of the material that is being presented. Without specific definitions of concepts, there is a greater opportunity for misinterpretation of the data. Important definitions in this module include the meanings of concepts related to food security as well as explanations of the terminology used to delineate the theoretical portions of the module.

General concepts used in this module include food security, malnutrition, historical trauma, social justice, and Scholarship of Integration. According to the World

Food Summit, “Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996, para. 1).

Undernutrition, a deficit of either food intake or protein, and overnutrition, an excess of calories or certain nutrients such as fats, carbohydrates, and proteins are both types of malnutrition (The Merck Manual Home Health Handbook, 2007). A health disparity is a continuing, statistically significant difference in a specific health indicator between population groups, which are linked with unequal social conditions (Holtz, 2010, p. 14S).

Historical trauma refers to feelings of grief and anger spanning the generations that have resulted from a long history of acts of oppression that includes broken treaties, loss of land, extermination, destruction of language and traditions, and boarding schools U.S.

Commission On Civil Rights (2004, p. 29). Social equality “seeks to achieve a reasonable balance between social benefits and burdens” (Holtz, 2010, p. 37S).

Scholarship of Integration is a process that promotes the achievement of fresh insight into an existing concept by creating connections between diverse bodies of knowledge, enabling the examination of a problem within its larger context (American Association of Colleges of Nursing, 2005).

Concepts and terminology related to theory include worldview, structural determinants of health, and critical lens. Leininger defines worldview as the perspective with which people regard the universe and their place within it. The worldview of a culture gives rise to the value systems that govern its decisions and actions relating to health and expressions of care (Leininger, 2006a, p. 15). Structural determinants of health include the dominant institutions of society such as health, political, government systems,

while a critical lens focuses awareness on unequal conditions of society that result in health disparities (Hartrick Doane & Varcoe, 2005, p. 60).

Process

The development of this module was guided by the Scholarship of Integration process. This method combines input from various academic disciplines in order to create greater understanding of an existing concept. When an issue such as food security is examined from multiple perspectives, the achievement of successful solutions becomes more likely (Boyer, 1990, pp. 18-19). The design of this educational module represents the Scholarship of Integration process because it utilizes information contained in peer-reviewed literature of the nursing, anthropology, sociology, and nutrition science professions. Additional information was obtained from scholarly books, as well as government and NGO websites. Community practicum experiences and conversations with Oglala Lakota cultural representatives provided an emic perspective.

The Scholarship of Integration method in the formulation of this module is particularly relevant because the project utilizes Leininger's Sunrise Enabler (see Figure 1) as a vehicle to explore the health issue of food security in the Pine Ridge Reservation. Because this project uses the Sunrise Enabler to examine the health issue of food security from sociocultural viewpoints including technological factors, religious and philosophical factors, kinship and social factors, political and legal factors, economic factors, educational factors, and cultural values, beliefs, and lifeways, it necessitates the gathering of information from numerous sources (Leininger, 2006a, p. 25). Leininger's statement that other fields such as anthropology and nutrition science provide critical knowledge concerning connections between food, cultural values, and health underscores that the

Scholarship of integration approach is an appropriate choice for this project (Leininger, 1988 b, p. 17). This gathering of knowledge aligns with the Scholarship of Integration process and helps students to learn the interrelated concepts influencing this health disparity (American Association of Colleges of Nursing, 2005).

Module Formation

The initial step in the process of module development involved a review of scholarly literature that pertains to the formulation of educational modules. Development of this module has also been informed by the professional organization, the Transcultural Nursing Society (TCNS). According to the TCNS, education for nurses about nutrition status in vulnerable populations is a priority issue for a core curriculum for transcultural nursing and health care (Holtz, 2010).

The educational module is designed to educate baccalaureate and post-graduate nursing students that food security is a basic human right for everyone, including vulnerable populations. It details how the concept of food security as a basic human right has evolved since the mid-1900s and contrasts the difference between the international and United States acceptance of this right. This knowledge is important because nursing students from the United States may be unaware that social rights, also known as basic human rights such as the right to food are legal rights in many other world nations; students may be surprised to learn that the United States fails to embrace this right legally (Chilton & Rose, 2009, p. 1204).

The module further addresses a general nursing knowledge deficit concerning the relationship between low food security and health. Possession of the knowledge that low

food security is a serious health disparity provides an opportunity for self-reflection as well as a challenge for students to broaden their knowledge about food security.

The module applies Leininger's theory (Leininger, 2006b) as a way to inform students of the concepts behind this health disparity. It utilizes the rays of Leininger's Sunrise Enabler (see Figure 1) to illustrate the multiple factors that underlie low food security for a vulnerable population, the Oglala Lakota people who live on the Pine ridge Reservation of South Dakota. An analysis of each dimension of the Sunrise Enabler in relationship to the low food security existing on the reservation demonstrates the effectiveness of this tool with real life examples. Telling the story of the Oglala Lakota people living on the Pine Ridge Reservation connects historical injustices to low food security in the present day.

In conclusion, the module not only educates nurses about the factors influencing food security for the Oglala Lakota people, it informs nurses about low food security and health, promotes an attitude that food is a basic human right, and challenges the Western medical perspective which regards health problems as separate entities without looking at primary underlying causes such as malnutrition related to poverty and low food security (Fontaine, 2011, p. 5).

Implementation

This educational module is designed to be presented to baccalaureate and post-graduate nursing students at Augsburg College who are enrolled in classes that offer either Pine Ridge practicums or immersion formats taking place on the reservation. Some of the subjects covered in such classes include transcultural health care, community health, the power of ritual and ceremony for transformation, and the politics of health.

Presentation of this module before a practicum or immersion class begins could allow for enhanced student appreciation of this important health issue by opening an opportunity for self-reflection. Because many nursing students end their education at the BSN level, knowledge of the connections between food security and health could enhance their practice with clients in other practice settings.

Implementation of this educational module will not be possible without the support of the Augsburg nursing faculty. One strategy to promote awareness of the module would be to present it to the nursing faculty as part of the agenda at one of their periodic departmental meetings. An unintended consequence of this strategy is that the nursing professors will become educated about the importance of food security in vulnerable populations and may choose to incorporate this knowledge into their future lesson plans. Faculty who participate in or experience this module might additionally share teaching techniques or other ideas that will enhance its presentation. Although this module is intended for baccalaureate and post-graduate nursing students who are already enrolled for a Pine Ridge experience, it is possible that the professors who teach beginning community health classes might request that the module be presented to students who will be participating in a future Pine Ridge practicum.

Engaging students. Although lecturing is the oldest form of teaching, it no longer is considered to be effective in promoting learning (Donnelly & Fitzmaurice, 2005, p. 100). Dr. C. Huang, Director of the Virtual Labs Project at the Stanford University School of Medicine Medical Media and Information Technologies (SUMMIT), emphasizes the effectiveness of a multimedia approach in student education. It is her opinion that although PowerPoint presentations utilize digital technology, they are

nonetheless a passive medium. Huang further states that effective educational media stimulates learners through the combined use of visual content, student interactions, and dynamic animations (Huang, 2005, p. 224).

This module attempts to engage student interest in this topic by encouraging creativity and deepening understanding of food security as a positive human right. In order to accomplish this, the 60 minute module presents information in varied formats that include a PowerPoint presentation, a metaphor, and the writing of a poem. The PowerPoint portion of the module will include learning objectives (see Appendix C, slide 5) as well as maps and pictures (see Appendix C, slides 9, 11,16,17,21, 22, 23, 27, 29, and 32). It will be accompanied by a printed handout of the slides with space for notes. Students will also receive a sheet depicting the Sunrise Enabler (see Figure 1), a detailed model that is difficult to visualize when it is displayed on a PowerPoint slide. The guideline for the length of the PowerPoint presentation is about 30 minutes.

The second portion of the modulè presentation will be devoted to a guided exercise that encompasses the question and answer period following the PowerPoint presentation. For this guided exercise a talking object will be used to specify and empower speakers during the question and answer session (Nash & Lindberg, 2008). The talking object will be a dream catcher, a cultural object produced by an Oglala Lakota artisan, and will be passed among the questioners to hold as questions are being asked. Handling the dream catcher enhances the module content by engaging the senses of sight and touch to encourage learner involvement (Huang, 2005, p. 224). Ten minutes is allotted for this guided exercise.

Metaphor. Nash and Lindberg (2008) state that because students sometimes have trouble retaining new concepts, the use of a metaphor, a language device that uses an object to represent something else, may be helpful. Although metaphors are most commonly verbal, Huang's statement that visual content stimulates learning (2005, p. 224) inspired the development of a visual metaphor for this project.

This project uses the metaphor of a pot of stew (see Appendix D) to enhance student learning about food security for indigenous populations. Stew, a culinary dish that is universal worldwide, represents food security for many cultures. This illustration uses *manga*, a contemporary Japanese highly stylized art form that appeals to a wide segment of the population, including young people, to depict this metaphor (Wall Street Journal, 2007). In this metaphor (see Appendix D), beneath a "World Menu" sign anchored to the wall by an Oglala Lakota medicine wheel, is a young woman who is decorated with elements of the flags of many nations and she holds a bowl of simmering stew. The flags represent the many cultures of the world, including both the cultures of nurses and the cultures of nursing clients. Some of the countries represented are Namibia, Mexico, Ireland, Japan, Jamaica, Bulgaria, Bolivia, Finland, the United Kingdom, and Russia.

Behind the young woman is a globe that represents Earth (see Appendix D), a symbol that emphasizes the universal connection between food, caring, and health; this connection of food, caring, and health is a relationship documented by Leininger (1988b). Food items that could be put into the stew rest on a counter behind her. Many of the items are fresh meats, dairy, and produce, a reminder that fresh foods are the most nutritious and make the best stew. Some of the foods are those that have historically been part of the Oglala Lakota diet such as fish and wild turnips (Pickering, 2000, p. 45). Other food

on the shelf such as bread and rice, are higher in energy but not as nutritious (Drewnowski, 2009, p. S37). A bottle of water sitting by the bread represents the importance of having a safe source of water for drinking and for cooking. Both the amount and the healthiness of the ingredients that flavor the stew depend upon the level of food security of the population group who is preparing it. The stew might be either rich or poor in nutrition depending on the circumstances that surround the person who is preparing it.

This visual metaphor can provide greater understanding to nursing students by connecting food security to the preparation of stew, a universal comfort food. As students imagine the challenges experienced by their clients in making a stew, they begin to internalize the awareness promoted by Leininger's Sunrise Enabler (see Figure 1) that it is necessary to consider the food security for each of their clients.

Creative learning. The final activity of the module will be devoted to small group learning. Current academic theory on learning states that peer instruction (learning in small groups) is frequently more effective than traditional lectures by professors (Donnelly & Fitzmaurice, 2005; Huang, 2005). Learning that occurs when students come together to discuss the answers to problems promotes real understanding of a problem (Nash & Lindberg, 2008). For this activity, the students will be divided into small groups; each will produce a cinquain, a five-line poem designed to inspire new thinking about a concept (Nash & Lindberg, 2008). The students will receive written instructions about composing a cinquain (see Appendix E) that expresses the essence of food security for the Oglala Lakota people. Each group will read its cinquain aloud; students will later receive a sheet with all the poems. Twenty minutes will be allotted for this final module

activity; twelve minutes will be allotted for group writing of cinquains, and eight minutes devoted to reading them aloud.

Theory & Concepts

Leininger's Theory of Culture Care Diversity and Universality provides the theoretical basis for this project (Leininger, 2006a). According to Leininger, "...nursing interventions will be most therapeutic and most beneficial when factors related to cultural food patterns and values are given consideration to support culturally congruent care" (Leininger, 1988b, pp. 17-18). A logical extension of this idea is that nurses must also be aware of the various factors that affect the food security status of their clients. A project conceptual module representation (picture or diagram) for nursing practice innovation is that of Leininger's Sunrise Enabler (see Figure 1). The concentric half-circles of the Sunrise Enabler represent the sun as it rises over the expressions of health care in a particular culture, or in the case of this module, the health inequity of low food security on the Pine Ridge Reservation. The rays of the sun are represented by various sociocultural dimensions that allow for an examination of how each dimension influences reservation food security. This analysis enables nurses to have a clearer understanding of cultural expressions of care that relate to his or her client (Andrews et al., 2010, p. 97S).

This project uses the Sunrise Enabler (see Figure 1) as an instrument to understand food security as it is experienced by the Oglala Lakota people who live on the Pine Ridge Reservation. In this project, the concept of food security, an underlying determinant of health, is substituted for the "care expressions, patterns, and practices" label that occupies the position on which the rays are focused in the traditional Sunrise Enabler model (see Figure 1). In her article, *Transcultural Eating Patterns and Nutrition*,

Leininger states that, “Food is closely linked to many other aspects of culture—the religious, kinship, political, economic, and educational systems as well as environmental factors” (Leininger, 1988b, p. 24). Therefore, the use of Leininger’s Sunrise Enabler (see Figure 1) to examine the health issue of food security for the Oglala Lakota people provides an appropriate basis for the educational module of this project.

Dimensions of Food Security

This project uses a critical lens to examine food security on the Pine Ridge Reservation through the seven sociocultural dimensions of Leininger’s Sunrise Enabler tool (see Figure 1). From left to right, these dimensions include technological factors; religious and philosophical factors; kinship and social factors; cultural beliefs, values, and lifeways; political and legal factors; economic factors; and educational factors. Each of these rays acts as a critical lens to “draw explicit attention to power, social inequities, and structural determinants of health...A critical lens is concerned with power, oppression, culture, the economic conditions of life, social change, and emancipation” (Hartrick Doane & Varcoe, 2005, p. 60).

Technological factors. Examination of technological factors, the first ray of the Sunrise Enabler (see Figure 1), shows that technology plays a critical role in the condition of low food security on the reservation by preventing physical access to food. Although the Pine Ridge Reservation is the second largest reservation in the entire United States, about the size of the State of Connecticut, only one paved highway transverses the reservation. Almost all of the remaining roadways are gravel, rendering them impassable during conditions of deep snow or heavy rain (Administration for Children & Families, 2009). During previous community visits with a public health nurse, deep mud on some

unpaved roads prevented travel, even with a four wheel drive vehicle. It is common for families living in remote areas of the reservation to lack running vehicles that could be used to travel to markets in the towns of Kyle, Pine Ridge, Chadron, or Rapid City to buy fresh food.

Windshield surveys conducted during my 2009 and 2010 Pine Ridge practicums showed an absence of electrical lines leading to many homes located in outlying areas of the reservation. Without electricity, people lack the wherewithal to store fresh meats, dairy, and produce; they must place greater reliance on canned and other shelf-stable foods. Such foods are inherently less healthy than fresh sources of nutrition (Drewnowski, 2009, p. S37).

Heavy mining of uranium ore in the forests of the southern Black Hills over the last 60 years has led to thousands of tons of uranium ore tailings washing into the Cheyenne River, the primary water source for the reservation. The lack of environmental precautions used by the mining companies has caused radioactive pollution of water in many parts of the reservation (Halder, 2002). Because families living in distant parts of the reservation areas do not have access to treated water, they get their water from wells or directly from streams, risking their health because they lack another basic human right—access to a safe water supply.

Additional existing infrastructure such as motels, sewer, and water is insufficient to support the demands of large businesses. My 2009 and 2010 windshield surveys revealed the existence of only two supermarkets and only a visiting bank for the entire reservation. The remote location of the reservation combined with the paucity of paved highways means that food distributors and wholesalers charge higher prices to deliver

fresh food to the two reservation supermarkets, limiting economic access to food by the majority of the reservation population.

The lack of infrastructure to support business almost guarantees that no large businesses from the outside will locate there, perpetuating poverty. The windshield surveys additionally found an almost complete absence of sidewalks throughout the reservation. Yale psychologist and epidemiology and public health professor Brownell states that it is unreasonable to blame people for obesity, especially when they live in areas of town where there are no food stores and sidewalks, and where other places to exercise are absent (National Public Radio, 2010).

Religious and philosophical factors. The second ray of the Sunrise Enabler (see Figure 1) draws attention to the influence of religious and philosophical factors on the cultural expressions of care. The Oglala Lakota culture has a circular orientation that encompasses the people, land, animals, and the environment in which they live; all are relatives. The Lakota phrase, “*Mitakuye Oyasin*, all my relatives,” expresses these sacred relationships (Pickering, 2000, p. 6). When the Lakota people lost their traditional way of life and were forced to live in a reservation, the loss of these relationships became a source of spiritual grief that has endured through the generations (Yellow Horse Brave Heart & DeBruyn, 1998, p. 62). Until the American Indian Religious Freedom Act of 1978, it was illegal for Native Americans to practice their traditional religion, even though Congress had granted them United States citizenship in 1924 (Treuer, 2012, p.95).

Although not directly connected to food security, the traditional religious and philosophical orientation of the Oglala Lakota people promotes maintaining an environment that is healthy to live in, one where food is grown and honored; spiritual

health and physical health are contingent on living in harmony with nature (Sanchez, Plawecki, & Plawecki, 1996, p. 197). The worldview of North American Indians, including the Oglala Lakota of Pine Ridge, shares similarities with Leininger's Sunrise Enabler (see Figure 1) in that both recognize that health or the expression of health are influenced by a multiplicity of factors. This worldview relates to that of syndemics, which teaches that because of the multiple influences on health, solving health problems requires cooperation by many stakeholders (Milstein, 2008). Therefore, the philosophical view of the Native American culture supports Leininger's (2006b) Culture Care Theory and Sunrise Enabler as well as syndemics theory as appropriate for use in this project.

Kinship and social factors. The kinship and social ray of the Sunrise Enabler (see Figure 1) represent a source of strength that works to help assure food security for the Oglala Lakota people who live on the Pine Ridge Reservation. Obligation to relatives is one of the most important cultural values (Pickering, 2000, p. 7). An important goal of this culture is that of generosity and sharing with others, a belief that the land and the gifts it provides belongs to everyone (Sanchez, Plawecki, & Plawecki, 1996, p. 301). Families share what they have and take in members of their extended family who need help, a cultural value known as *tiyospaye* (Pickering and Jewell, 2008, p. 138). Even though this custom results in less food for the host family, a higher level of food security results for the extended family as a whole.

An unintended consequence this safety net of generosity to extended family has is an inaccuracy of Census data. Family members who are residing temporarily with relatives are not usually mentioned to Census workers, resulting in an artificially low population count for the reservation (Pickering, 2000, pp. 10-11). Because Federal

benefits are based on population statistics, support for reservation health care and programs such as food support may be underfunded.

Cultural beliefs, values, and lifeways. An assessment of the cultural values, beliefs, and lifeways ray of the Sunrise Enabler (see Figure 1) reveals dimensions that both promote and reduce food security. The traditional lifeway of the Oglala Lakota people ended beginning with the series of treaties that culminated in life on the Pine Ridge Reservation (Yellow Horse Brave Heart, 2003, p. 8). In keeping with a traditional way of living, much of the reservation population lives in isolated rural areas far from towns (South Dakota Department of Health, 2008). This way of living not only makes physical access to healthy, fresh foods more difficult, it also increases the cost to economically access a healthy diet. Although commercially canned foods are shelf-stable, they tend to be high in salt, sugar, and carbohydrates and can have a negative influence on health (Drewnowski, 2009, p. S37). The Oglala Lakota cultural value of *tiyospaye* emphasizes the importance of extended family and exerts a positive influence for food security. Lakota people use reciprocity to share what they have with others and alleviate economic difficulties (Pickering and Jewell, 2008, p. 138).

Political and legal factors. Political and legal factors pertaining to the Oglala Lakota people have had a direct causal effect on the existence of food security on the Pine Ridge Reservation. The history of broken treaties pushed the people into a remote section of land that was too small to support their former healthy hunter gatherer lifeway (Brave Heart, 2003, p. 7). Tribal lands were further reduced by the 1887 Dawes Allotment Act (Treuer, 2012, pp. 133-134). This legislation has resulted in fractionated ownership of the land such as ownership of a single parcel of land by numerous

individuals or white settlement on tribal lands (Yellow Horse Brave Heart & DeBruyn, 1998, p. 64). This system has discouraged productive use of the land as well as perpetuated poverty through the generations (Administration for Children & Families, 2009).

The Oglala Lakota people, as well as all Native Americans, did not become citizens of the United States until the passage of the Indian Citizenship Act in 1924 (Treuer, 2012, p. 95). The conditions of extreme disparity with the general population that still exist on the Pine Ridge Reservation today within the Lakota population suggest that the Oglala Lakota people are still regarded as being of lesser importance than other populations in the United States. Three informative letters that I wrote to Minnesota senators and congressmen after my 2009 and 2010 practicums concerning health conditions on the Pine Ridge Reservation went unacknowledged, inferring that these political leaders, regardless of their committee appointments, have scant concern for the health of Native American people.

The Federal commodity food program seeks to assure food security for the residents of reservations. A visit to a Pine Ridge food shelf located in a community center revealed a preponderance of food low in nutrition such as snack foods, boxes of chocolates, canned soda, and coffee. Although the food supplied traditionally has been high in starches, salt, and fats, a recent announcement by the Pine Ridge tribal authority stated that the monthly packages of meats and food will now include fresh fruits and vegetables (Oglala Sioux Tribe, 2011).

Economic factors. The economic ray of the Sunrise Enabler (see Figure 1) reveals a direct link between poverty and low food security on the Pine Ridge

Reservation. The Pine Ridge Reservation encompasses three of the poorest counties in the nation; Shannon County ranks third in poverty for the entire United States (Rapid City Journal, 2012). Additionally, there are few employers on the reservation; the unemployment rate is about 88% (Administration for Children & Families, 2009). A practicum windshield survey completed in 2010 revealed that there were only two supermarkets. In addition to lack of infrastructure to support business development, Pickering theorizes that the relatively low number of potential customers discourages business expansion into Pine Ridge (Pickering, 2000, p. 37). Pickering further hypothesizes that because many adults leave the reservation for job opportunities elsewhere, the reservation population has disproportionate numbers of elders and young children left behind who live with their grandparents; this segment of the population is not as able to participate in the development of a sustainable economic base (Pickering, 2000, p. 13).

Affordable, nutritious food is in short supply on the Pine Ridge Reservation. As stated earlier in this paper, despite the poverty on the reservation, prices at reservation food stores are much higher than at the chain supermarkets about 100 miles away in Rapid City, or 55 miles away from those in Chadron, NE. According to Brownell, a professor of psychology, epidemiology, and public health at the Yale Rudd Center for Food Policy and Obesity, poor people lack both physical and economic access to food; they pay higher prices than people who live in middle class neighborhoods (Minnesota Public Radio, 2012). The current record prices of gasoline most likely deter many people from traveling long distances to purchase food from less expensive stores. The economic

climate of the reservation means that people lack both physical and economic access to fresh, healthy foods.

Nursing groups visiting Pine Ridge could help to reduce reservation poverty by purchasing locally produced arts and crafts as well as by patronizing locally owned businesses that provide jobs such as grocery stores. Because few businesses exist on the Pine Ridge Reservation, many artisans rely on door-to-door sales to Pine Ridge Retreat Center visitors to support themselves and their families

Educational factors. An analysis of the educational ray of the Sunrise Enabler (see Figure 1) reveals that an educational disparity most likely contributes to the presence of low food security on the reservation. According to Shannon County Department of Education statistics, only 7.4% of students graduated from high school in 2011, an increase from the 2010 graduation rate of 4.88%. This compares to a high school graduation rate of 49.36% for Native American students statewide and 83.93% for all students statewide (South Dakota Department of Education, 2011). In contrast, a school run by the United States Bureau of Indian Affairs (BIA) that is located in the town of Pine Ridge had a high school graduation rate of 55.68% in 2011 (United States Bureau of Indian Education, 2011). Pickering suggests that one reason for the low high school graduation rates is that many parents must move frequently to find jobs, interrupting the education process for their children (Pickering, 2000, p. 24).

In stark contrast to the Shannon County and BIA schools, almost all students graduate from high school at the private Red Cloud School. Every student graduates with plans for higher education, and 57 Red Cloud students have been recipients of the Bill and Melinda Gates Millennium Scholarship, more than from any other school in the

nation (Red Cloud School, 2012). Because the Red Cloud students are among the best and brightest in our nation, it stands to reason that if structural conditions that promote poverty and educational disparities were eliminated, the remainder of Pine Ridge youth would prove to be equally talented.

A single library, located at the Oglala Lakota College, serves as an educational resource for the entire reservation. Although broad generalizations cannot be made concerning an entire group of people, these statistics indicate a possible need for further education about nutritious diets and their contribution to overall health. A recent study of 5,000 high school graduates by a University of Michigan epidemiologist found that people who did not complete any education beyond their high school diploma were 50% more likely to be overweight and unemployed (National Public Radio, 2010).

Although the price of fresh, healthy foods may discourage their purchase in local food stores, demand by knowledgeable customers might increase these types of food offerings. People might become interested in planting their own gardens to save money and eat healthier and, at the same time, increase food security for themselves and their families.

Educational factors of a different nature also influence the existence of low food security on the reservation. The lack of awareness by nurses (and possibly other health professionals) of the connection between low food security and health that was noted during the literature review for this project has helped perpetuate apathy on the part of the dominant society to address this health disparity for vulnerable populations. Nurses who are aware of this health disparity can use the public health intervention of health teaching

to not only educate clients about nutrition, but to promote awareness by other nurses of the role that food security plays in health (Public Health Nursing Section, 2001).

Sunrise Enabler Conclusions

Analysis of the health issue of low food security that currently exists on the Pine Ridge Reservation through the critical lens of the Sunrise Enabler (see Figure 1) reveals the complexity of addressing this disparity. The interaction of numerous disparate factors over the previous 160 years has culminated in a food environment that is hostile to the Oglala Lakota people living on the reservation. There is no single nursing action or action by others that could provide a remedy resulting in food security for this population. Milstein's (2008) syndemics concept that health challenges within a population are interconnected supports the use of the Sunrise Enabler to study this health issue. According to both Leininger (2006a) and Milstein (2008), one must look beyond the specific health issue to examine the underlying conditions.

Summary

A review of literature for this project showed that for many health professionals, making correct choices about what to eat is the basis for health disparities related to nutrition such as diabetes, hypertension, heart disease, and cancer. This view is promoted by the government Food Pyramid and My Plate illustrations that suggest that all people need to do in order to be healthy is to put nutritious foods, in the right amounts, on their plates (United States Department of Agriculture, 2011a). An unstated assumption is that all people enjoy equal access to healthy food. The development of a nursing educational module about food security for the Oglala Lakota people who live on the Pine Ridge Reservation utilized the Scholarship of Integration process to uncover more specific

information relating to this health issue (American Association of Colleges of Nursing, 2005). Analysis of the condition of low food security existing on the Pine Ridge Reservation through the critical lens of the Sunrise Enabler (see Figure 1) illuminates the multiple influences that have continued to perpetuate this health disparity and supports the Scholarship of Integration process (American Association of Colleges of Nursing, 2005).

Information obtained in the development of the project module may contribute to an expanded understanding by nurses of the connections between low food security and related health problems such as diabetes, heart disease, and cancer. Although the Pine Ridge Reservation is a tiny portion of the world population, the analysis contained in this module also serves to highlight conditions of low food security that are experienced in vulnerable populations throughout the world.

Low food security is not only a health disparity; the information obtained during the development process of this module makes it clear that the problem of low food security must be regarded from a social justice perspective. Interpretative Statement 8.1 of the *Code of Ethics for Nurses* states that it is an ethical responsibility for nurses to look beyond their own practices and be knowledgeable of a broad range of world health issues such as hunger (American Nurses Association, 2001, p. 23). Interpretative Statement 8.2 further states that nurses must work collaboratively with other disciplines to eliminate conditions that present barriers to health (American Nurses Association, 2001, p. 24). The position statement of the Transcultural Nursing Society additionally states that transcultural nurses should advocate for change with both their nursing colleagues and the institutions in which they practice (Miller et al., 2008, p. 6). One way for nurses to

engage in this process is to educate colleagues about this health issue. Another is by writing white papers, policy papers designed to persuade government and other organizational leaders to accept food security as a basic human right (American Association of Colleges of Nursing, 2005).

Nurses who are committed to the assurance of food security for all citizens must be aware that the social change process takes place over many years; ongoing action to create awareness is required (Chilton & Rose, 2009, p. 1207). Education is of prime importance; before any change can begin, nurses must first be knowledgeable about the importance of food security in assuring health for vulnerable populations.

Chapter Four is concerned with evaluation of the educational module that is the focus of this project. Topics discussed in Chapter Four include analysis of the module as well as both a description of evaluation procedures and the criteria for the evaluation by students to whom the module has been presented. In addition, Chapter Four contains personal observations and reflections related to the process of module development.

Chapter Four: Discussion/Proposed Procedures of the Practice/Model

This project focuses on food security as experienced by the Oglala Lakota people who live on the Pine Ridge Reservation of South Dakota. The educational module developed for this project focuses on scholarly research from disciplines such as nursing, sociology, anthropology, and nutrition science to illuminate the connections between low food security and health of vulnerable population groups such as the Oglala Lakota people.

In accordance with current academic learning theory, this module has attempted to focus on student learning rather than on the traditional lecture method. The module uses several participative formats to facilitate student involvement with this health issue including a PowerPoint presentation, use of a talking object to designate a speaker during the question period (Nash & Lindberg, 2008), a colorful drawing that illustrates a metaphor for food security, and small group creation of a cinquain that expresses the essence of food security as a basic right for indigenous people (Nash & Lindberg, 2008). A goal of this module is to increase self-awareness in both baccalaureate and post-graduate nurses of how they perceive food security as a health issue and to enlist their support in promoting food security as a basic human right for vulnerable populations within the United States.

Description of Evaluation Procedures

Although this project entailed the development of an educational module, the module has not yet been implemented. Evaluation criteria, therefore, have never been developed. If this project were to be implemented, evaluation criteria would be developed to ascertain the effectiveness in meeting the goals of the module: to present a social

justice perspective of food security as a positive right and to increase the awareness of baccalaureate and post-graduate nurses of food security as an important health issue for vulnerable populations. According to development and learning specialists at the Dublin Institute of Technology, assessment of student learning is of critical importance in evaluating the effectiveness of educational modules (Donnelly and Fitzmaurice, 2005, pp. 106-107). Therefore, if the educational module described in this project were to be implemented, an evaluation method would need to be developed to assess student learning.

Development of an assessment tool would first require a survey of academic education literature concerning evaluation methods. A survey of nursing professors at Augsburg College for their opinions about what methods of evaluation are the most effective could also be helpful. In addition to measuring previously defined outcomes of learning, student feedback after the presentation would provide valuable information to improve the module. Another possible evaluation of the module might occur several months after module presentation to gauge student retention of the concept of food security as a basic human right.

Analysis and Critical Reflections on the Project

Leininger's (1988) historic transcultural article about nutrition and eating patterns states that an analysis of a culture's ways of accessing food, use of food, and eating patterns is an important tool to help nurses understand the meanings of health and illness for that culture (Leininger, 1988, p. 16). Leininger states that nurses must be concerned with the availability of food to vulnerable populations such as the poor (Leininger, 1988, p. 17). Leininger additionally co-authored the position statement of the TCNS that

pledges active support for worldwide positive rights as defined by the International Covenant on Economic, Social, and Cultural Rights (Miller et al., 2008). Despite continued teaching by Leininger that it is important for nurses to be knowledgeable about nutritional factors that influence the health of their clients, a review of scholarly research for this project revealed that the majority of academic research about connections between food security and health originates from the disciplines of nutrition science, anthropology, and social sciences. Leininger states that such research is a source of critical knowledge to nurses in formulating therapeutic nursing interventions (Leininger, 1988, p. 17).

Analysis of the literature review also revealed a knowledge deficit by most nurses concerning food security for their clients, reinforcing Leininger's contention that "today many nurses are still unaware of the tremendous cultural variations in nutritional differences and food uses transculturally" (Leininger, 1988, p. 18). An answer to this knowledge deficit may be related to the linear worldview that characterizes the dominant mainstream United States culture (Schelbert, 2009, p. 50). According to Leininger, transcultural nurses who approach the health of their clients from a holistic vantage point are naturally interested in the influence of eating patterns, including the availability of food and its effect on health (Leininger, 1988, p. 17). The extent of the deficiency of nurse knowledge revealed by the literature review supports the need for an educational module about the importance of food security for indigenous populations.

Supporting Theories: Leininger and Milstein

Two theories underlie the development of this project module. The first is Leininger's Theory of Culture Care Diversity and Universality and Sunrise Enabler

(2006). Leininger's Culture Care Theory states that the health care outcomes for members of any culture are influenced by the worldview and structures of the culture, the cultural context in which people live, and the history and language expressions of the culture (Leininger, 2006, p. 25). Leininger's Sunrise Enabler provides a way for nurses to increase their knowledge of a culture by discovering how multiple influences affect cultural care expressions as well as health and quality of life. The Sunrise Enabler assists nurses in making more appropriate care decisions and actions by focusing attention on many dimensions of a culture that are frequently overlooked in traditional nursing practice (Andrews et al., 2010, pp. 96S-97S). In this project, the Sunrise Enabler (see Figure 1) is used to uncover the factors that influence the health issue of low food security on the Pine Ridge Reservation.

The second theory contribution to the development of this module is Milstein's (2008) theory of syndemics. This new science states that because multiple contributing forces underlie every health issue, the knowledge of professionals from other academic disciplines, in addition to that of health professionals, is necessary to find comprehensive solutions to health problems (Milstein, 2008). This theory even applies to the development of educational modules for health professionals. The contributions of Huang (2005) to education theory, cited in the module development process section of Chapter Three, are an illustration of the syndemics process. As stated earlier in Chapter Three, Dr. Huang is the Director of the SUMMIT program at Stanford University. She is also a lecturer in the Stanford University Department of Computer Science and holds a PhD in Molecular and Cell Biology, with additional training in other areas that include fields of traditional and digital arts, animation, and computer-human interaction (Huang, 2005, p.

233). Huang's expertise in the area of the design of multimedia learning modules in the health field has been guided by knowledge derived from multiple domains of study, exemplifying Milstein's (2008) syndemics theory.

Creative Reflections Related to Module Development

An analysis of the Sunrise Enabler (see Figure 1) shows that multiple factors influence food security on the Pine Ridge Reservation even within a single category such as economic influences. For example, the economic factor of the Sunrise Enabler is influenced by the technological factor in Pine Ridge; lack of infrastructure necessary to support businesses has resulted in few employers on the reservation, thus perpetuating poverty (Administration for Children & Families, 2009). Similar influences between factors characterize most other rays of the Sunrise Enabler.

Leininger's opinion that research from the fields of nutrition science and anthropology can benefit transcultural nursing practice appears to validate Milstein's (2008) syndemics theory, which states that solutions to complicated health problems must incorporate knowledge from diverse bodies of knowledge (Leininger, 1988, p. 17). Milstein's (2008) hypothesis that multiple factors that result in health disparities such as the low food security experienced by the Lakota people is validated by the seven sociocultural dimensions of Leininger's Sunrise Enabler (see Figure 1). The interconnection of contributing factors to low security on the Pine Ridge Reservation makes clear that the theories of Milstein (2008) and Leininger (2006) are mutually supportive and provide an appropriate foundation for exploring this health issue.

Although Leininger's Sunrise Enabler (see Figure 1) was the model used for this project, other variations of the Sunrise Enabler exist that could have been considered in

the development of the project module. A nursing researcher studying culture care for the Potawatomi group of Native Americans developed a model of Leininger's Sunrise Enabler that represented the Native American worldview (Farrell, 2006, p. 235). The circular representation of Farrell's adaptation depicts the health of an individual at the center of the multiple influences that determine health, and it expresses the Native American worldview that all things are interrelated (Leininger, 2006b, p. 291). The holistic orientation depicted by this model communicates Farrell's willingness to put her linear worldview aside, one that is typical of most health care professionals of the dominant culture, and attempts to look at the world through the holistic viewpoint of her Potawatomi clients (Schelbert, 2009, p. 50). Although Leininger's representation of the Sunrise Enabler was the one used for this project, usage of Farrell's (2006) adaption may have been more compatible with this module.

Through the process of reflection and writing about the evaluation procedures surrounding the development of the educational module for this project, much of which occurred after Chapter Two had been partially completed, my awareness of the importance of completing a strong foundation for every academic project has dramatically increased. Although I had previously thought that the nursing theory of Leininger (2006) and her Sunrise Enabler tool (see Figure 1), supported by Milstein's (2008) science of syndemics, provided the underlying basis for my educational module, in retrospect, I gave less than optimal attention to the details of module structure development. Although I had developed comprehensive outlines before beginning to write each chapter, I struggled with how my educational module should best present the complex relationships and critical information that surrounds the health disparity of low

food security for the Oglala Lakota people. Because of this experience, I wish that I had begun to explore module development at the very beginning of this project process. Perhaps this nursing course could include a recommendation on the first day of class for students interested in educational module projects to begin researching educational module development.

The scholarly research of Donnelly and Fitzmaurice (2005) and Huang (2005) provided valuable insight that the incorporation of creative processes into a module promotes student engagement with the learning process. During spring break, I visited with old family friends in Florida. At dinner one night, as I was discussing the pot of stew metaphor for my project with a friend who is completing her PhD, her teenage daughter was busy drawing at the other end of the table, seemingly paying no attention to the adult discussion. When it was time to leave, the daughter presented me with a drawing that represented her understanding of my pot of stew metaphor! Creating the drawing represented her involvement in the learning process. Since then, as I reflect on my Augsburg nursing classes, I realize that my most memorable classes included techniques that enhanced student learning. It is possible that the professors of these classes utilized student suggestions to enhance the presentation of information in their classes; all Augsburg classes provide an opportunity for anonymous feedback. Because student feedback represents a valuable source of information about the module's effectiveness, a brief evaluation form soliciting feedback could be distributed along with the Sunrise Enabler diagram sheet.

Although I had lived on the Pine Ridge Reservation many years ago and participated in two Pine Ridge practicum experiences connected to my Augsburg classes,

my project choice of subject. food security for the Oglala Lakota people living on the Pine Ridge Reservation, would have been enhanced by additional Pine Ridge experiences. Although circumstances did not permit a return to Pine Ridge before beginning this project, I would have liked to visit places such as the Pine Ridge commodity foods warehouse, additional food shelf locations throughout the reservation, the Oglala Sioux Tribe administrative offices, and artisan markets.

During the literature review for my project, I discovered few nursing research articles involving food security. This paucity of nursing research on this topic indicates a need for more academic research about food security for vulnerable populations. When nurses become aware of the role of food security in health, they might begin to assess client food security, allowing for more effective care actions, a nursing responsibility prioritized by Leininger (1988).

Lessons Learned

The biggest lesson that I have taken away from the process of working on my project is that learning is not a smooth process. Even though I have read numerous journal articles and books about food security for indigenous people, including the Oglala Lakota, the more that I learn about my topic, the more I realize how much there is that I don't know. While reading the newspaper, listening to public radio, and watching public television programs, I find connections with various aspects of food security. The numerous parallels between the Oglala Lakota people of Pine Ridge and the San/Bushman peoples of Namibia have led me to the realization that knowledge of the conditions that influence low food security for one vulnerable population can be applied to other vulnerable group of people. Most of all, I have been surprised at how long the

process of self-awareness can take. Even as I complete the latter stages of this project, I find myself suddenly viewing experiences that happened years ago in a new context; the existence of ingrained, subconscious attitudes and levels of hubris are difficult to acknowledge and strip away. When I began the Master of Arts in Nursing (MAN) program at Augsburg College, I thought that the achievement of a MAN degree would be the culmination of my academic career; now that's not true. I have applied for admission to the Doctor of Nursing Practice (DNP) program; if accepted, I plan to continue exploring the topic of nurse knowledge as related to food security and its influences on health for vulnerable people.

Summary

The process of writing an educational module is a complicated task that first begins with the investigation of a health topic about which nurse education is needed. The educational module of this project attempts to fill a gap in nursing knowledge; every research study uncovered during the literature review for this project revealed a knowledge deficit by nurses of all professional levels concerning the connections between food security and health. A primary consideration in the process of this module creation was the selection of a nursing theory that provided exploration in the topic of my module: food security for the Oglala Lakota people who live on the Pine Ridge Reservation of South Dakota. Leininger's (2006b) Theory of Culture Care and Sunrise Enabler (see Figure 1), assisted by Milstein's (2008) syndemics theory, provided a suitable foundation for this project. This foundation was particularly helpful in interpreting the data revealed during the literature review.

Modern learning theory has afforded an opportunity to devise an educational module that promotes student awareness of connections between food security and health for the Oglala Lakota people through the incorporation of creative elements into the module such as small group learning, metaphor, art, poetry, and a talking object.

Equally important to the purpose of the module, increasing knowledge by nurses regarding food security for the Oglala Lakota people and promoting a social justice mindset for their nursing practice. Subsequently, the process of module creation has enhanced my knowledge of the relationship between structural conditions of society and low food security and led to increased levels of self-awareness. This awareness continues to evolve, demonstrating that the changing of attitudes regarding basic human rights such as food security is a progressive process. The knowledge contained in this module is a tool that will allow nurses to develop their own self-awareness of this basic human right, helping to create a climate in which positive change can occur. Eliminating the disparity of low food security for the Oglala Lakota people of Pine Ridge will not only fulfill a short-term goal of better health and longevity, it will support conditions that lead to higher educational attainment and the elimination of poverty and head to brighter prospects for future generations.

Chapter Five looks at possible future research projects that directly relate to the educational module of this project. This chapter additionally explores other research topics related to the topic of food security on the Pine Ridge Reservation and discusses the implications of the module for advanced transcultural nursing practice.

Chapter Five: Conclusions, Recommendations, & Implications

The focus of this chapter involves future research projects that could develop from the development of the educational module that is the focus of this project. Other topics addressed in this chapter are implications for transcultural nursing practice, education of nursing students, and positive consequences that become possible when nurses are educated about food security for a vulnerable population such as the Oglala Lakota people.

Expansion of Project Module

This focus of this project has been the development of an educational module for nursing students concerned with food security for the Oglala Lakota people who live on the Pine Ridge Reservation of South Dakota. Because the literature review for this project revealed a general lack of nurse knowledge concerning this health issue, a logical implication for expansion of my project could involve assessment of nurse attitudes related to food security following the presentation of my module to baccalaureate and post-graduate Augsburg nursing students. Nursing students exposed to the module could be surveyed both six months and one year later to assess for both retention of the concept as food as a basic human right and to find out if these nurses began to assess their clients for food security.

Another project expansion through research inquiry could involve surveying the Augsburg nursing students who participate in Pine Ridge practicums. In a similar format to Wittig's (2004) study, Augsburg students who had experienced both the Pine Ridge practicums and the educational module of this project could be surveyed about priority health issues that they observed during their practicums. This type of study could provide

an indirect source of feedback about the effectiveness of the educational module that is the focus of this project. Both of these potential studies involve the implementation of this module and could be used as the basis of a doctoral project.

There are additional topics related to food security that could provide avenues of inquiry for nursing research. One avenue of inquiry might involve the investigation of Pine Ridge food deserts; these are population areas where healthy food is not readily available (United States Department of Agriculture, 2011b). Another area of research could explore how to best incorporate emic knowledge and values into daily nutrition. Because the traditional Lakota lifestyle was a healthy one, another research inquiry could involve whether Oglala Lakota people who hunt and fish to supplement their diets enjoy a higher level of health than the general Pine Ridge population. Furthermore, a study of Pine Ridge public health nurse awareness of connections between food security and health could provide guidance about what nursing interventions have been found to be most helpful in addressing this health inequity. Yet another topic of study might be the refinement of Leininger's Sunrise Enabler (see Figure 1) that reflects the Native American perspective as related to health disparities such as low food security. The recent explosion of public interest in the topic of nutrition and food security will undoubtedly suggest other avenues of nursing inquiry into this topic.

A further implication for expansion of this module is that it might encourage an interest in food security in the nursing students to whom the module is presented. Because this module focuses on the education of baccalaureate and post-graduate nursing students at Augsburg College, it is likely that almost all of these nurses will be involved in research projects at some point during their professional careers. Exposure to this

module may motivate some of these nurses to choose topics relating to food security as a human right for their own academic research. As this research is presented to other nurses in venues such as the annual TCNS meeting and published in nursing journals, a growing number of nurses will become aware of this important health issue.

Implications for Advanced Transcultural Nursing Practice

Evaluation of the literature review indicates a lack of nurse awareness of the connection between food security and health in vulnerable populations at all levels of the profession. Because Leininger (1988, pp. 17-18) states that knowledge of the eating patterns and other factors influencing the nutrition of clients is imperative to the formation of effective nursing practices when working with clients of any culture that is different from that of the nurse, the curriculum of graduate transcultural curriculums should include content that reflects this perspective. This project achieves this perspective by focusing on a transcultural understanding of food security for the Oglala Lakota people of the Pine Ridge Reservation of South Dakota. The issue of their food security is an appropriate subject for this project because it provides an example of food security issues experienced by vulnerable populations throughout the world.

The TCNS position statement states that advanced transcultural nurses have a professional obligation to advocate for the positive human rights for all people; it is not enough for competent transcultural nurses merely to heed Leininger's (2006) requirement to have a holistic orientation and provide culturally appropriate interventions to their clients (Miller et al., 2008). Analysis of the TCNS human rights position statement suggests that in order to become agents for change, advance practice transcultural nurses must educate a broad spectrum of the population that includes other nurses, political

leaders at all levels of government, nongovernment policy makers, and members of the general public.

Nursing research that explores the relationship between food security and health needs to be guided not only by the theory of a specific nurse theorist but also by complementary theory that strengthens and supports the nursing theory providing the foundation for the research. Although Leininger's (2006a) Culture Care Theory and Sunrise Enabler (see Figure 1) provided the primary theoretical basis for the module of this project and was supported by Milstein's (2008) syndemics theory, other theorists could contribute valuable insight to nurse understanding of this health issue. For example, some nurses might consider the dynamic, constantly changing relationships postulated by M. Newman's (1994) Health as Expanding Consciousness Theory to be central to identifying nursing actions that would be helpful to improving the food security status of their clients. Additionally, complexity theory could provide a complementary support to Newman's nursing theory (Hartrick Doane & Varcoe, 2005, p. 52). Because much of the research related to food security and health has been performed by professionals from outside nursing (Leininger, 1988, p. 17), it is possible that theory from the fields of anthropology, sociology, or nutrition science might provide inspiration for nursing research studies.

Summary

Increasing food security for vulnerable populations is a priority health issue that affects countless numbers of the world population including the Oglala Lakota people who live on the Pine Ridge Reservation of South Dakota (United Nations, 2008). Analysis of Leininger's Sunrise Enabler (see Figure 1) reveals that structural conditions

of society have both caused and contributed to the perpetuation of low food security on the Pine Ridge Reservation. Recent research has documented an unusually high household incidence of diabetes, heart disease, hypertension, and cancer in Pine Ridge households (Sherman et al., 2010); all of these medical conditions have been linked to deficiencies that result in overnutrition (American Diabetes Association, 2012; Popkin, 2007).

The examination of multiple contributing factors revealed by the Sunrise Enabler (see Figure 1) makes it clear that positive change can occur only through the concerted action of concerned individuals throughout society. In order for this to happen, awareness must be raised of the consequences of low food security for the Oglala Lakota people. Because the nursing profession enjoys a higher perception of trustworthiness than any other profession, continued nurse advocacy drawing public attention to this health disparity has the potential to increase food security for the Oglala Lakota people who live on the Pine Ridge Reservation as well as for that of other vulnerable populations worldwide (Gallup, 2011).

Guided by Leininger's (2006) theory, the literature review revealed a complex relationship of interconnections that have resulted in low food security for the Oglala Lakota people of the Pine Ridge Reservation. Although it is unlikely that the actions of a single nurse could one-handedly alleviate this health disparity, there is yet an impact to be made by nursing actions. Leininger's Sunrise Enabler (see Figure 1) depicts two-way arrows connecting the sociocultural structural dimensions of care, worldview, and nursing care expressions and practices within the Sunrise Enabler. The reciprocal action of the arrows signify an influential impact among and between these factors and

practices, indicating that changes in health disparities such as food security can result from care actions of either a single nurse, or group of nurses, as well as from the sociocultural dimensions influences depicted by the rays of the Sunrise Enabler.

It is possible that educating nurses about the relationship between food security and health would have magnified consequences in improving overall health for reservation residents (Hartrick Doane & Varcoe, 2005, p. 54). Collective nurse action could foster legal recognition of food security as a basic human right and assure that the Oglala Lakota people of the Pine Ridge Reservation will always have access to groceries needed to make themselves nourishing pots of stew. Actions by educated nurses to improve the food security of the Oglala Lakota people have the potential to simultaneously increase food security for other vulnerable groups in our nation and strengthen the overall well-being and economic security of the United States.

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Appendix A

Poster

HEALTH WALK for National Native HIV/AIDS
Awareness Day
March 20 2009 11am beginning downtown Martin
and ending at the CAP building at Sunrise Housing.

LUNCH WILL BE PROVIDED



Sponsored by: OST Health Education, OST Public Safety,
Public Health Nursing, CHR Program, Diabetes Programs

OST Health Education: 8675694 /2067 for information



Appendix B

Permission E-mail from M. Leininger to Use the Sunrise Enabler

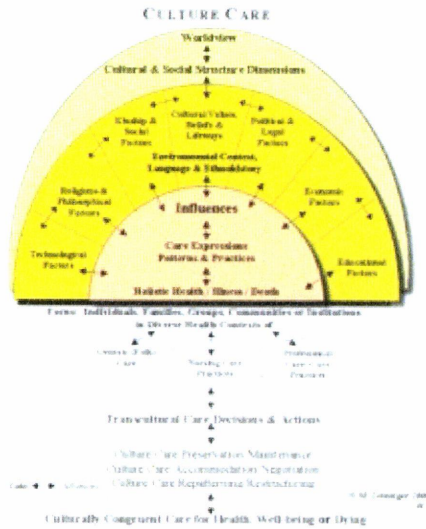
Madeleine Leininger madeleine.leininger@me.com

Dr. Leininger grants you permission to use her enabler within your paper. However, your paper must be sent to me when you have completed it so that it can be included in her archives. For reference purposes, it is Dr. Leininger's Enabler and not Dr. McFarland's Enabler. I am including a copy of the enabler for your use.

Cordially,

John S. Vanderlaan, RN, MSN, CEN, CTN-A
Assistant to Dr. Leininger

Leininger's Sunrise Enabler to Discover Culture Care



Appendix C

PowerPoint Presentation

FOOD SECURITY
IN THE PINE RIDGE
RESERVATION: A NURSING
EDUCATIONAL MODULE

Beth Gund
Submitted in partial fulfillment for MAN
June 20, 2012

1

LEININGER'S THEORY OF CULTURAL DIVERSITY
AND UNIVERSALITY

"Patterns of eating food procurement, and food use by diverse cultures in their unique ecological contexts are major areas of study to help nurses understand the meanings of wellness, illness, and disease."

"Food is closely linked to many other aspects of culture—the religious, kinship, political, economic, and educational systems as well as environmental factors."

LEININGER, (1988, pp. 16,24)

2

SUNRISE ENABLER

- Sheds light on expressions of health care in a culture
- Can be used to study a health disparity such as food security
- 7 rays represent sociocultural dimensions to reveal knowledge

LEININGER, (1988,2006, p. 25)

3

SYNDEMICS

Health inequities have multiple causes

Knowledge from various disciplines is necessary to solve problems

MILSTEIN, (2008)

4

LEARNING OBJECTIVES

- Identify 3 conditions that influence food security for people living on the Pine Ridge Indian Reservation
- Name 2 cultural strengths of the Oglala Lakota people

5

“Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.”

World Food Summit (1996)

6

UNIVERSAL DECLARATION OF HUMAN RIGHTS

All human beings have a right to a standard of living that includes food sufficient to ensure good health

UNITED NATIONS, (1948)

7

A BASIC RIGHT

1966 International Covenant on Economic, Social, and Cultural Rights


1978 Declaration of Alma-Ata

1996 Rome Conference

WHO, 2006, 2009)
WORLD FOOD SUMMIT, (1996)

8

UNITED NATIONS #1 MILLENNIUM DEVELOPMENT GOAL:
Eliminate Poverty and Hunger



UNITED NATIONS (2008)

9

UNITED STATES POLICY

Social rights not legislated

Has monitored food security levels since 1995

\$50 billion/year on food support programs

Disparities remain unchanged

CHILTON & ROSE, (2009)


10

LET'S MOVE!

GOALS

- Lower child obesity
- Ensure access to healthy & affordable food
- Increase food access in low income areas

**SIOUX NATION
GROCERY STORE**



LET'S MOVE! (2010)

11

HOUSEHOLD FOOD SECURITY IN USA

- 2008 14.6% food insecure
- 2012 14.6%
- 2020 6% Healthy People 2020 goal

HEALTHY PEOPLE 2020, (2012)

12

A GLOBAL HEALTH INEQUITY

Malnutrition

Undernutrition

- Deficit of either food intake or protein
- Developing countries

Over nutrition

- Excess of fats, carbohydrates, proteins; obesity
- First World countries

THE MERCK MANUAL HOME HEALTH
HANDBOOK (2007)

13

OBESITY CONSEQUENCES

- Cardiac Disease
- Hypertension
- Cancer
- Diabetes
 - Independently connected to low food security

AMERICAN DIABETES ASSOCIATION,
(2007)
POPKIN, (2007, p. 61)
SELIGMAN ET AL. (2007, p. 1021)

14

UNRECOGNIZED HEALTH INEQUITY

Knowledge deficit of nurses

- All levels
- Worldwide
- Public health nurses

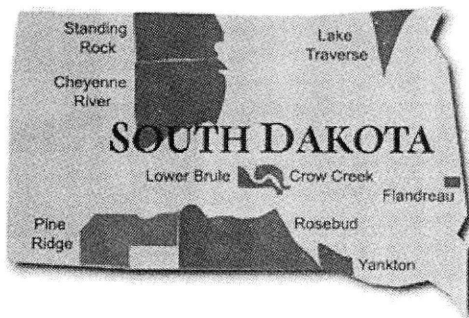
Few nursing studies

- Research opportunity

LEININGER, (1988)
WEIGLEY, (1997)

15

PINE RIDGE RESERVATION



16

HISTORY OF OGLALA LAKOTA PEOPLE

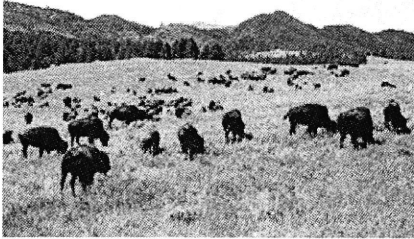
Hunter gatherer lifestyle

Broken Treaties beginning in 1851

Gold discovered in Black Hills, 1874

Wounded Knee Massacre, 1890

Boarding schools 1880s-1960s



BRAVE HEART, (2003, p. 7)
CHILD, (2012, pp. 122-124)
KOVACS & IP, (2011, p. 36)

17

PINE RIDGE HEALTH DISPARITIES

Obesity rate is 74.5 % for SD Native Americans
(66% for American Indians overall)

Household rates of incidence:

- Diabetes 51.1%
- 45.7% hypertension
- 25% heart disease
- 16% cancer

SHERMAN, JEWEL, & MIZUSHIMA, (2010)

18

RESULTS

Average Pine Ridge life expectancy is 64.3 years
(76.9 years for USA)

56.5 years—average male life expectancy

SHERMAN, JEWEL, & MIZUSHIMA, (2010)

19

PINE RIDGE HOUSEHOLD RATES OF INCIDENCE


- Diabetes 51.1%
- 45.7% hypertension
- 25% heart disease
- 16% cancer

SHERMAN, JEWEL, & MIZUSHIMA (2010)

20

TECHNOLOGY FACTORS

ABSENT:
Paved roads
Sidewalks
Banks
Safe water
Infrastructure necessary for support of business development




ADMINISTRATION FOR CHILDREN & FAMILIES, (2009)

21

RELIGIOUS & PHILOSOPHICAL FACTORS

MITAKUYE OYASIN **ALL MY RELATIVES**

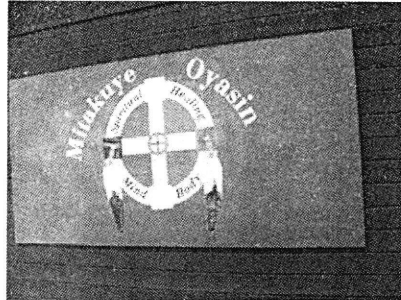
- Holistic worldview
- Sacred relationships encompass other people, all living things, and the land itself
- The land and its gifts belong to everyone



PICKERING, (2000, p. 6)

22

HEALING THE SPIRIT



23

KINSHIP & SOCIAL FACTORS

Tiyospaye = value of extended family

- Obligation to others
- Generosity
- Safety net
- Greater food security for group as a whole

Unintended result:

- Inaccuracy of Census data; less \$\$ for programs

PICKERING, 2000, p. 6)
SANCHEZ, PLAWECKI, & PLAWECKI, (2008, p. 138)

24

CULTURAL BELIEFS, VALUES, & LIFEWAYS

- **Traditional lifestyle still valued**
 - Many families live in isolated rural areas
 - Physical access to food difficult
 - Shelf-stable foods high in sugar, salt, carbs
- **Most families still hunt & fish**
 - Wild plants (turnips, berries, plums) still important food source for traditional soups & puddings

SD DEPARTMENT OF HEALTH, (2008)
PICKERING, (2000, p. 46)

25

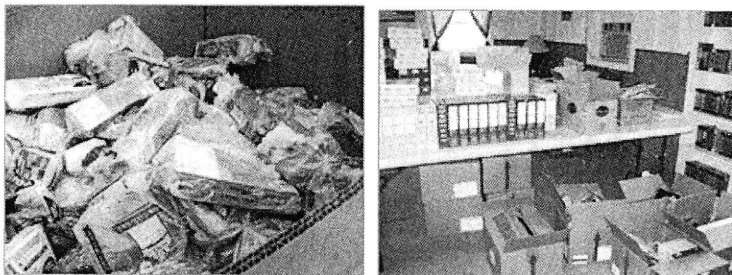
POLITICAL & LEGAL FACTORS

- **Broken treaties**
 - Land too small to support traditional lifeway
 - Promised \$\$ benefits never happened
- **1887–Dawes Allotment Act**
 - Numerous people own single piece of land
 - Discourages productive land use
- **1924–US citizenship**
- **Federal commodity food program**

BRAVE HEART, (2003, p. 7)
TREUER, (2012, p. 95)
YELLOW HORSE BRAVE HEART & DEBRUYN,
(1998, p. 64)

26

COMMODITY FOODS
PORCUPINE, SD



27

ECONOMIC FACTORS

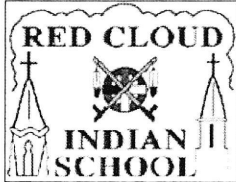
- Shannon County 3rd poorest in USA
- 88% unemployment
 - Major employers are Federal & Tribal gov't
 - Most jobs minimum wage
 - Permanent, secure, full-time jobs scarce
- People lack both economic & physical food access

ADMINISTRATION FOR CHILDREN &
FAMILIES, (2009)

28

EDUCATIONAL FACTORS

- High school graduates:
 - Pine Ridge public schools 7.4%
 - SD Native Americans 49.36%
 - SD statewide 83.93%
- 1 library for the entire reservation
- Red Cloud School
- Lack of knowledge by general US population (including nurses) helps perpetuate apathy about low food security for vulnerable populations



SD DEP'T. OF EDUCATION, (2011)
RED CLOUD SCHOOL, (2012)

29

IMPLICATIONS

A self-perpetuating cycle promotes poverty and low food security for succeeding generations

First Lady Michelle Obama:

“The physical and emotional health of an entire generation and the economic health and security of our nation is at stake”

ANTINMO, (2009)
CHILTON, (2009)
LET'S MOVE!, (2010)

30

WHAT CAN NURSES DO?

- Assess food security of all clients
- Educate yourself about food security
- Be an agent for change

31

FOOD SECURITY IS.....A POT OF STEW



32

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Appendix D

Pot of Stew Metaphor



This pot of simmering stew is held by a young woman decorated with the flags of many nations. These flags represent the diversity of world cultures, both the cultures of nurses and the cultures of their clients. The world menu sign, anchored by the Lakota medicine wheel, and the globe behind the woman represent a universal connection between food, caring, and health (Leininger, 1988b). The fresh foods on the counter behind the woman show that wholesome foods make the most nutritious stew; the bread and rice are higher in energy but not quite as nutritious. Both the amount and healthy nature of the ingredients flavoring the stew depend on the level of food security of the population that is making it.

Appendix E

Cinquain Instructions (Nash & Lindberg, 2008)

Discussion question: How can awareness of low food security guide *your* practice with clients belonging to vulnerable populations?

Based on what you have heard and seen in today's presentation, write a cinquain.

This 5-line poem stimulates new thoughts about an old idea that demonstrate creativity. It requires little time and orientation, but allows for freedom of expression.

Line 1: one word subject or noun

Line 2: two words (adjectives) that describe line 1

Line 3: three words (action verbs) that relate to line 1

Line 4: four words that express feelings or complete a sentence that relates to line 1

Line 5: one word synonym of line 1 or a word that sums it up

Food
Expensive, elusive
Challenge, struggle, overcome
I have a dream.
Enough

Group Cinquain:

**Augsburg College
Department of Nursing
Master of Arts in Nursing Program
Thesis or Graduate Project Approval Form**

This is to certify that **Beth Grund** has successfully defended her Graduate Project entitled “**Food Security in the Pine Ridge Indian Reservation: A Nursing Educational Module**” and fulfilled the requirements for the Master of Arts in Nursing degree.

Date of Oral defense June 20, 2012.

Committee member signatures:

Advisor: Deborah Schumacher Date June 20, 2012

Reader 1: Cheyl Leuning Date June 20, 2012

Reader 2: Sarah E Larson Date June 20, 2012

Augsburg College
Lindell Library
Minneapolis, MN 55454