A Cultural Competence Guide for Occupational Therapists: Addressing Major Health Issues of the Eastern Shoshone & Northern Arapaho Tribes

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A Cultural Competence Guide for Occupational Therapists:

Addressing Major Health Issues of the

Eastern Shoshone & Northern Arapaho Tribes

by

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A Scholarly Project
Submitted to the Occupational Therapy Department
of the
University of North Dakota
in partial fulfillment of the requirements
for the degree of
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This Scholarly Project Paper, submitted by Crystal Nelson and Ashton Wilcox-Brown in partial fulfillment of the requirement for the Degree of Master's of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.
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Title: A Cultural Competence Guide for Occupational Therapists: Addressing Major Health Issues of the Eastern Shoshone & Northern Arapaho Tribes

Department: Occupational Therapy

Degree: Master’s of Occupational Therapy

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ABSTRACT

The authors have created a cultural competency guide on the history, culture, and beliefs of the Northern Arapaho and Eastern Shoshone tribes as well as an overview of current health concerns and resulting health disparities. The creation of the guide is necessary in order to provide information about these cultures to occupational therapists (OT) working with them. However, there is considerable lack of resources for discussing cultural competency regarding these tribes in relation to occupational therapy.

In preparing to create the guide, an extensive literature review was conducted to determine cultural issues and health disparities of the two tribes. Secondary sources were also utilized to describe the history, spiritual practices, and traditional healing practices of these populations.

This product is an informative, useful resource for OT's in Wyoming. The cultural competency guide is an effective means of beginning the process of cultural competence for OT's that provide treatment to these tribes. The intended outcome is to help OT's begin the process of developing cultural competency, resulting in the ability of OT's to honestly and effectively provide quality care to members of the Northern Arapaho and Eastern Shoshone nations.
CHAPTER I
INTRODUCTION

During previous fieldwork experiences in the Wind River region, both authors were influenced by observations, discussions with healthcare providers in the Wind River region, and patient interactions to note that the Eastern Shoshone and Northern Arapaho tribes are affected by chronic healthcare concerns that are substantive causes of major health disparities. In reflecting on such disparities, the authors became personally invested in improving their own cultural competency with the Wyoming tribal nations, as well as influencing the cultural competence of other occupational therapists who address the health conditions and health disparities that affect these populations.

The authors conceived of creating a guide that focuses on developing the cultural competence of practicing Wyoming occupational therapists. This will be done through: (a) describing and discussing major healthcare concerns negatively impacting the tribes, (b) confronting cultural myths and biases, (c) assisting clinicians in developing strategies for rapport and culturally appropriate intervention, and (d) increasing the authors’ own competency through the educational experience of completing this scholarly project.

The cultural competency guide is designed as a Wyoming occupational therapist beginner’s guide into the culturally competent treatment of the Northern Arapaho and Eastern Shoshone tribes. Within the guide, cultural competency is defined and its relevance to occupational therapy professionals is explained. The Eastern Shoshone and Northern Arapaho tribal histories, cultural beliefs, spiritual practices, and contemporary contexts are explored. The guide focuses on significant healthcare disparities, especially those found to be the top five mortality causing factors for Native Americans. A primary
goal of each chapter includes revealing misconceptions, communicating accurate information, exploring the underlying causes, and developing culturally competent approaches toward these illnesses. In addition, information about additional resources is also provided, including tribal health organizations, wellness programs, and treatment centers.

As the United States becomes increasingly diverse, it is incumbent on health professionals to become culturally competent practitioners (Suarez-Balcazar et al., 2009). However, several multiple cultural competency approaches are currently used throughout healthcare from the perspectives of many different healthcare occupations and many different authors. In this product, the Occupational Therapy Cultural Competency model by Black and Wells (2007) was selected because it synthesizes and utilizes many different approaches to create a comprehensive model. The model provides a helpful process through which a therapist will be able to begin and continue the journey of cultural competency in the form of an individualized plan.

The scholarly project is comprised of four more chapters. Chapter II is an extensive literature review, which discusses cultural competency, the health disparities of cardiovascular disease, cancer, unintentional injuries, diabetes, chronic liver disease, and underlying causes and factors related to these disparities, and strategies or tools that other entities have tried as intervention. Although information is limited, the histories of the Northern Arapaho and Eastern Shoshone are explored as well, and the cultural competency model developed by Black and Wells (2007) is explained. Chapter III provides information regarding the methodology used to create this product. The methodology section focuses on a logic model borrowed from the University of
Wisconsin that was used to guide the authors’ formation of the product. Chapter IV contains the introduction to the actual Cultural Competency Guide that can be found in its complete form in the Appendices. Chapter V summarizes the project as well as provides discussion and implications for future study.

Although the guide is intended to be user friendly, comprehensive, and informative, it should not be considered the only means through which someone can achieve cultural competency. Ultimately, influencing the implementation and application of the guide depends upon the steps of testing and evaluating the product, as well as the acceptance it receives from experts within the field, the Eastern Shoshone and Northern Arapaho tribes, and practicing occupational therapists. Dissemination depends upon securing funding for printing, mailing, and/or dissemination through continuing education workshop or in-services in targeted clinics, hospitals, and rehabilitation facilities.
CHAPTER II
LITERATURE REVIEW

Introduction

The U.S. Census Bureau (2006-2008) estimates the population of the Wind River Reservation, centrally located in Wyoming, as containing approximately 7,882 people. The reservation consists of both Northern Arapaho and Eastern Shoshone people. When working with Native Americans, healthcare workers may feel increased challenges in providing care due to the complex nature of the culture (Office of Minority Health, 2009). According to the Office of Minority Health (2009), the American Indian and Alaskan Native (AI/AN) populations are often diagnosed with chronic illnesses and are thus afflicted by major health disparities. Since such chronic illnesses frequently lead to impairment in occupational functioning and activities of daily living, occupational therapists (OT’s) in Wyoming need competence in understanding the culture of the members of the Wind River Reservation. Once understood, OT’s need to apply the knowledge in how culture influences provision of quality healthcare to this population. Cultural competence is essential for providing quality healthcare in occupational therapy because it helps to build rapport and establish the provision of effective treatment (Black & Wells, 2007). Based on the needs of patients as well as clinicians, the purpose of this review of literature is to:

1. Present the need for increasing culturally competent care in the profession of occupational therapy when working with Native Americans;

2. Discuss the Northern Arapaho and Eastern Shoshone tribes;
3. Introduce the main health concerns and disparities affecting Native Americans and the implications these concerns hold for occupational therapists;

4. Explore the underlying causes of the healthcare concerns demonstrating that the healthcare concerns are the result of many factors;

5. Identify the best practices and information regarding the Northern Arapaho and Eastern Shoshone tribes that are essential for occupational therapists to provide culturally competent quality care in order to effectively and objectively meet the needs of this population.

The result of this literature review is the development of a cultural competency guide for Wyoming occupational therapists to increase working effectively with members of the Wind River Reservation.

Cultural Competency

Borkan, Culhane-Pera, and Goldman (2008) identify the concept of “cultural humility” as a means to becoming culturally competent. Cultural humility is simply the process of understanding one’s own values and beliefs in order to understand the culture of others. To achieve cultural competency, Black and Wells (2007) identify three components in their cultural competency model to assist in the process as self-exploration, knowledge, and skills. The three components are described as follows:

...[S]elf-exploration is an essential requirement to be culturally competent. Knowledge of one’s self enables the practitioner to be aware of and take responsibility for his or her own emotions and attitudes at they affect professional behavior. ...Cultural knowledge about other groups promotes understanding and allows occupational therapy practitioners and students to adapt the way in which
services are delivered.... *Cultural skills* refers to acquiring and mastering strategies, techniques, and approaches for communicating and interacting with people from different cultures. (pp. 61-64)

However, cultural competency is more than being aware of, sensitive to, or familiar with a culture; it is incorporating an understanding and applying knowledge of the culture to practice (Saha, Beach, & Cooper, 2008). Black and Wells (2007) suggest the process for obtaining cultural competency as developing a personal plan that includes building a support system, specific goals and timelines, and activities that engage cultural learning and the implementation of the described goals. Activities can include the utilization of literature resources, taking cultural classes, community education classes or workshops, speaking with community members, and assessing the necessary changes that must be made within oneself. The next step is to collect information that will increase one’s knowledge about the topic and culture in question. Finally, developing cultural skills is necessary for accurately assessing the client’s cultural needs. The competency process gives the OT credibility and strategies when building rapport with culturally diverse patients. Thus, Black and Wells (2007) describe cultural competency as essential to occupational therapy practice since it is important to understand and be aware of varying cultures in order to establish effective practice. They go on to describe cultural competency as:

...[T]he capacity to respond to the needs of populations whose cultures are different from what might be called *dominant or mainstream*.... Developing cultural competence is a lifelong process designed to foster understanding,
acceptance, knowledge, and constructive relations between people of various cultures and differences. (pp. 33-34)

Understanding the cultural competency process is essential to becoming culturally competent and includes understanding that culture influences an individual’s beliefs as well as how a person perceives and reacts to disease, medicine, and medical professionals. Borkan, Culhane-Pera, and Goldman (2008) emphasize that quality care includes demonstrating a cultural competence that encourages the acknowledgement of ethnicity as a way to build rapport, communication, and respect between professionals and their clients.

A qualitative study conducted by Cook, Kosoko-Lasaki, and O’Brien (2005) illustrates the importance of communication. In order to identify whether minority populations within Omaha, Nebraska were satisfied with their healthcare, a survey was given to the minority population. The same survey was also given to the majority population of the Omaha region in order to understand their response to and satisfaction with healthcare. The authors felt that it was necessary to gain both a minority opinion and a majority opinion to see whether the healthcare was lacking or if the cultural competency of the healthcare workers was actually the main barrier. They found that, while both minority and majority participants were satisfied with their healthcare, there were flaws in the use of verbal and non-verbal communication during encounters with healthcare professionals such as using unfamiliar terminology or not asking the patient enough about the illness (e.g., cause, treatment, cultural perceptions). The authors concluded that best practice might necessitate working with interpreters or healers from a
particular community in order to communicate sensitivity to and understanding of the clients’ beliefs and values (Cook, Kosoko-Lasaki, & O’Brien, 2005).

When working with clients from a different cultural background, a set of unwritten rules often exists that a medical professional should be aware of during treatment (Palacios, Butterfly, & Strickland, 2005). Unfortunately, there are frequently more questions than answers regarding these unwritten rules. For example, even in the same tribal nation, members will exhibit varying comfort levels with non-verbal communication, such as eye contact. Some members will find it offensive or disrespectful, while others will not. (Palacios, Butterfly, & Strickland, 2005).

A publication by Drexel University School of Public Health also noted that medical professionals might assume that all people from a particular ethnicity practice the same beliefs and rituals or have similar aptitudes (Cultural Competence Practice and Training, 2003). For example, a client’s failure to follow therapeutic prescriptions might be mistaken by practitioners as a lack of intelligence or non-compliance, when in actuality there is a communication breakdown between the health professional and the patient (Cultural Competence Practice and Training, 2003). Therefore, the culture of an individual can influence the entire process of healthcare including the interpretation of the disease and the meaning associated with the illness.

Currently, there are over 500 recognized tribes in the United States, accounting for 1.9 million of the Native American population (U.S. Department of the Interior, 2009). The tribes all have differing origins, cultural roots, and tribal nation practices; therefore, health professionals, including occupational therapists, have the opportunity and obligation to become more culturally aware of Native American people in general, as
well as improving cultural awareness of distinct tribal nations who receive services in their geographic locale and in non-tribal health facilities. Fox (2009) advises that becoming culturally aware will help ensure holistic and client-centered treatment is provided to Native American clients. Fox (2009) emphasizes there is a need to understand the cultural background of a patient in order to understand the patient’s compliance to treatment and perception of illness.

**Occupational Therapists’ Role in Holistic Healthcare Practices.** Cultural competency is imperative to the occupational therapy practitioner’s ability to provide the best possible treatment to members of minority and ethnic groups. Occupational therapists should be aware of cultures other than their own and the history of those cultures to ensure they are providing treatment that is reflective of both the occupational therapy process and the culture’s traditional practices. Black and Wells (2007) state:

> Culturally competent providers allow the consumer to receive interventions reflective of both the dominant culture of the health care system and the individual. Culturally competent care is a form of holistic practice that interweaves the cultures of the consumer, healthcare system, provider, and traditional health practices. (p. 27)

Thus, providing holistic care implies therapists must remain lifelong learners, be open to new and expanding ideas, and have the ability to know when and how to ask questions of their patients.

The American Occupational Therapy Association (AOTA) includes culturally competent care as a main principle of occupational therapy practice. The AOTA Code of Ethics (2005), Principle 1 states:
Occupational therapy personnel shall demonstrate a concern for the safety and well-being of the recipients of their services. Occupational therapy personnel shall:

A. Provide services in a fair and equitable manner. They shall recognize and appreciate the cultural components of economics, geography, race, ethnicity, religious, and political factors, marital status, age, sexual orientation, gender identity, and disability of all recipients of their services.

The AOTA Framework (2008) uses a definition from Moyers and Dale (2007) to describe spirituality in the following way: “The ‘personal quest for understanding answers to ultimate questions about life, about meaning, and the sacred.’ (Moyers & Dale, 2007, p. 28)” (p. 634). Thus, the occupational therapy field moves culturally competent care to another level by incorporating cultural aspects of spirituality within the client factors in The Occupational Therapy Practice Framework (2008). The AOTA Framework (2008) also includes the environmental concerns of one’s culture and describes culture as:

Customs, beliefs, activity patterns, behavior standards, and expectations accepted by the society of which the client is a member. Includes ethnicity and values as well as political aspects, such as laws that affect access to resources and affirm personal rights. Also includes opportunities for education, employment, and economic support. (p. 645)

In addition to the AOTA Framework and AOTA Code of Ethics, Black and Wells (2007) offer support toward occupational therapists’ need for cultural competency thusly:
Occupational therapists and occupational therapy assistants depend on receiving information from their clients about health histories and symptoms, lifestyles, and concerns to make appropriate intervention decisions. Similarly, clients depend on receiving clear and descriptive information about health care treatment and strategies from their providers. Members of the health care team also depend on sharing pertinent information with one another to provide effective care (Crawley et al., 2002; Kreps & Thornton, 1992). Yet, the client, provider, and team members are all likely to have very different cultural orientations and understandings regarding the provision of health care, based on their personal cultural influences and life experiences as well as on their professional training. (p. 55)

Fox (2009) discusses the importance of cultural competency with Native Americans, describing the need for therapists to utilize a patient’s cultural context to facilitate treatment. Several studies are found in the literature that have discussed Native American views on health, however few are found for the Northern Arapaho and Eastern Shoshone tribes. Extrapolation of these study results to the Northern Arapaho and Eastern Shoshone cannot be made directly; however, the information can increase the reader’s sensitivity in regards to the Northern Arapaho and Eastern Shoshone tribes’ potential concerns.

However, before discussing the factors influencing Native American health disparities, it is important to emphasize that most elements of cultural disparity, including aspects of powerlessness, marginalization, disenfranchisement, poor educational resources, low income, unemployment, mental health, and lack of food security; as being
underlain with roots in cultural oppression for Native Americans. According to Duran, Firehammer, and Gonzalez (2008), “Culture is part of the soul” and all people have experienced “some form of historical trauma that continues to cause confusion and suffering in the present” (p. 288).

Examples of historical trauma could range from the personal culture (e.g., family history of domestic violence or sexual assault); to ethnic culture (e.g., genocide, slavery); or even national culture (e.g., 9/11, Oklahoma City Bombing). The point is, if historical trauma is not “effectively dealt with, each person, as well as her or his descendants, is doomed to experience and perpetuate various forms of psychic and spiritual suffering in the future” (Duran, Firehammer, & Gonzalez, 2008, p. 288). One might have encouraged the authors to include the physiological effects of stress and consequent stress-related physical illnesses as aspects of ongoing cultural suffering. In her doctoral dissertation, Cashin (2001) does explore how multi-generational trauma, in fact, does influence genetics, biology, neurobiology, emotions, and capacities for healing.

Thus, the reader may want to carefully consider the extent to which current ethnocentric practices (i.e., Western cultural paradigms) including medicine, psychology, empirical science, and even occupational therapy might be perpetuating oppression that ultimately influences the disease and health status of Native Americans. Duran, Firehammer, and Gonzalez (2008, p. 292) state that, “In such a dynamic relationship between the oppressed and the oppressor, the negative energy of oppression consumes the lives of the human beings involved and creates a self-perpetuating suffering.”

Therefore, the reader is encouraged to assume a critical stance when reviewing the following literature and with especial awareness of one’s own biases and judgments.
towards Native Americans, as well as that of the researchers and scientists contributing to the body of research.

**General Native American Healing Experience**

Although Native American healing practices have not yet been proven empirically to cure physiological disease, there are reports showing significant improvement in health perceptions by Native Americans who participate in tribal health practices (American Cancer Society, 2008). According to the American Cancer Society (2008), such health perceptions may be due to the psychological benefits of traditional health practice. Contemporary Native American healing practices range from using traditional tribal practices to western medical practices (Palacios, Butterfly, & Strickland, 2005).

However, each individual Native American has personal principles and beliefs about health. Thus, many native people fall somewhere in the middle where they choose to incorporate traditional practices such as using a tribal healer alongside contemporary practices, both for healing and social situations (Coyhis & Simonelli, 2008). Of course, use of traditional healing practices such as a medicine man, might also be driven by access and affordability issues in obtaining services from medical professionals (Broome & Broome, 2007). Therefore, native health resources may be more accessible and affordable. As a result, many tribes continue to practice traditional healing. However, such rituals and beliefs vary; examples are the use of herbal remedies, sweat lodges, and other symbolic healing rituals (American Cancer Society, 2008). In addition, some of the healing traditions are sacred and exclusively passed on to other healers in the tribe; therefore, information on a healing practice is not always specific and is often limited
A growing number of health programs incorporate both Western and native healing traditions.

For example, Coyhis and Simonelli (2008) address culture, recovery, and healing as going hand in hand for Native American people. Currently, there are movements aimed at healing the mind and body by incorporating traditional cultural perspectives along with western medicine. One specific movement incorporating traditional practice is called the *Wellbriety Movement*. Wellbriety refers to being both sober and well. According to Coyhis and Simonelli (2008), "The Wellbriety Movement offers an ensemble of interconnected teachings that most tribal people worldwide recognize because their own local traditions are also rooted in holistic ways of life (White Bison, 2002), (Coyhis & Simonelli, August 2006)." Another example is the *People Awakening Project* (Mohatt et al., 2004), that provides mental health services to Alaska Natives using culturally relevant metaphors.

Communication is also a key facet in delivering culturally competent health care. Most Native Americans speak English but may also speak a tribal language. However language is not the only means of communication; therefore, it is imperative to be aware of nonverbal communications as well as the verbal (Broome & Broome, 2007). In one of the few studies that address the Wind River Reservation, AuCoin Lee (1997) identified nonverbal communication as sometimes more important and powerful than spoken words. AuCoin Lee's (1997) study of communication styles on the Wind River Reservation, found that nonverbal language is used in varying ways to show respect and to communicate effectively. For example, many of the participants expressed the thought that showing intense emotion made that person appear weak. AuCoin Lee’s (1997) main
suggestion is to take cues from the patient on the use of appropriate nonverbal communication in regard to that individual patient’s perception or comfort level as it generally varies between persons. The study states clinicians who are not culturally competent and do not communicate in culturally competent ways are bound to create misunderstandings that will hinder the therapeutic process (AuCoin Lee, 1997).

Native American Health Disparities

The Native American population is unique in healthcare needs due to the multifaceted nature of the culture. The Office of Minority Health (2009) identifies cardiovascular disease, cancer, unintentional injuries, diabetes, and chronic liver disease as the top causes of death affecting American Indian and Alaskan Native (AI/AN) populations (Castor et al., 2006). Such healthcare disparities cause the American Indian/Alaskan Native populations to have a higher mortality rate (Castor et al., 2006). Castor et al. (2006) identified cardiovascular disease as the leading cause of death for Native Americans, followed by cancer.

In addition, healthcare disparities affecting native populations are due to multifaceted and varied underlying factors. In an article by Sarche and Spicer (2008) health disparities, underlying factors, and cultural strengths are discussed. They state the following:

U.S. Department of Health and Human Resources: Indian Health Services (IHS) (2008), the federal agency that provides medical care to roughly 1.6 million American Indian and Alaska Native people, the age-adjusted death rate for adults exceeds that of the general population by almost 40%, with deaths due to diabetes, chronic liver disease, and cirrhosis, and accidents occurring at least three
times the national rate, and deaths due to tuberculosis, pneumonia, and influenza, suicide, homicide, and heart disease also exceeding those of the general population (p. 3).

**Cardiovascular Disease.** Cardiovascular disease is responsible for 1.4 million deaths in the US every year (Davis, Vinci, Okwuosa, Chase, & Huang, 2007). American Indians are even more likely than Caucasian Americans to be diagnosed with cardiovascular disease due to the high rate of underlying factors that affect the Native American populations (Office of Minority Health, 2009). In fact, Graham, Guendelman, Leong, Hogan, and Dennison (2006) state that “American Indians/Alaska Natives have the highest percentage of premature deaths from heart disease and highest prevalence of heart disease and coronary heart disease.”

Underlying factors and/or risk factors associated with cardiovascular disease include: obesity, hypertension, smoking, diabetes, and physical inactivity (Davis et al., 2007). Graham et al. (2006) also identify overeating, inactivity, high blood pressure, smoking, obesity, type-2 diabetes, lack of exercise, and high cholesterol. The Office of Minority Health states, “American Indians/Alaska Native adults are 60% more likely to be obese than white adults, 30% more likely to have high blood pressure, and they are more likely to be current cigarette smokers than white adults.”(para. 1) The combination of underlying causes creates significant problems for Native American populations by contributing to the development of cardiovascular disease (Graham et al., 2006).

**Cancer.** Cancer is the leading health disparity afflicting Native American populations. The Office of Minority Health (2009) identified American Indian/Alaska Native men as 60% more likely than Caucasian men to have liver cancer. AI/AN men
were also 1.6 times more likely to have stomach cancer and twice as likely to die from it (Wiggins et al., 2008). Cancer is a disease with high mortality rates for any ethnicity or race; however, mortality rates for Native American men in the Northern Plains states who have colorectal cancer, are 59% higher than for men of all races, and 48% higher for all ethnicities of U.S. men (Muus et al. 2009). In a study conducted in 2008 (Wiggins et al.) cancer of the prostate, lung, colon, kidney, and urinary bladder were identified as the top five sites for indigenous males in all regions (except for Alaska and the Southwest). In the same study, breast, colorectal, uterine, lung, and non-Hodgkin lymphoma were identified as the top five cancer sites in indigenous females in the Pacific Coast and Plains states (including the Wind River Reservation). Furthermore, American Indian women are 2.5 times more likely to have liver cancer and 40% more likely to have kidney/renal pelvis cancer as Caucasian women. American Indian women also have a greater mortality rate due to these cancers (Office of Minority Health, 2009).

Since there is a great healthcare disparity in cancer rates and the associated mortality rates for the Native American populations, it is very likely that underlying factors and barriers exist in order to access care or cancer screening for the Native American population (Guadagnolo et al., 2009; Wiggins et al., 2008). Barriers in access to care for this population include mistrust of healthcare professionals, dissatisfaction with healthcare experiences, and lack of healthcare related knowledge from the patients’ perspective. Therefore, lack of cultural competency and cultural sensitivity by healthcare providers also negatively contributes to the barriers faced by this population (Guadagnolo et al., 2009). The underlying factors that put people at a high risk for being afflicted by the disease are identified by Wiggins et al. (2008, p. 1146) as “tobacco abuse, obesity,
physical inactivity, heavy alcohol consumption, dietary factors, and prevalence of infectious agents that are believed to cause cancer.” Muus et al. (2009) also identified obesity as a risk factor in their literature review, citing obesity as a negative influence on access to care and cancer screening behaviors.

**Unintentional Injuries.** Unintentional injuries are the leading cause of death for people under 45, for all races in the US (Schlundt, Warren, & Miller, 2004). In a study by Pressley, Barlow, Kendig, and Paneth-Pollack (2007) unintentional injury rates for children of every race is estimated at 13.7 per 100,000 children. However, Native American children had an unintentional injury rate of 28.0 per 100,000, illustrating the highest rate among any ethnicity or race. The authors in Pressley et al. (2007) identify the types of unintentional injuries as: motor-vehicle accidents, drowning, residential fires, suffocation, poisoning, and firearm related injuries. Schlundt et al. (2004) identified that all of the above unintentional injury types, except residential fires and poisoning, held the highest disparities for Native American children as compared to other races in the US.

While there are a variety of unintentional injuries, motor vehicle crashes represent the most frequent cause of unintentional injuries (Schlundt et al., 2004). Schlundt et al. (2004) identified various contributing factors to the high incidence of motor vehicle crashes: Motorcycle and helmet usage, seat belt use, drinking and driving, risky driving behavior, driver fatigue and distraction. These underlying factors influence the rate of motor vehicle crashes, and unintentional injuries for every race; however, according to Schlundt et al., (2004):

American Indians have higher mortality rates²⁰⁸ and injury rates in motor vehicle crashes than do non-Hispanic whites living in the same state.²⁰⁹ Similar findings
have been reported for pedestrians, with death rates among American Indian pedestrians being 3 to 4 times higher than among white pedestrians in Arizona. (p. 86)

The reason for this discrepancy in motor vehicle mortality rates was not directly identified, but was linked to increased risky behaviors among this population and possibly low socioeconomic status and the resulting stress (Schlundt et al., 2004).

Unintentional injuries are preventable when interventions are employed, however, for these interventions to be successful, access to the interventions and monetary support must be in place. For instance, in an area with lower socioeconomic status there is likely to be fewer funds available, correlating to fewer programs, and an overall lack of access to the programs that are in place (Pressley et al., 2007).

Since the Office of Minority Health (2009) identifies diabetes as the second health disparity affecting Native Americans, and dietary factors are also considered to be related to rates and mortality of cancer, diabetes will be discussed next (Wiggins et al., 2008).

**Diabetes.** Diabetes is a national health concern for all ethnic groups; however, Native Americans are at an even greater risk for developing and living with chronic diabetes. U.S. Department of Health and Human Resources: IHS (2008) report that Native Americans currently are diagnosed with diabetes at a rate of 16.3 percent, which is a rate twice the national average and the highest percentage among all racial and ethnic groups within the United States. Many other studies (Acton, Rogers, Campbell, Johnson, & Gohdes, 1993; Grey-Owl et al., 2009) support the data that Native American people are at a higher risk than Caucasian or other minorities for developing and being diagnosed with diabetes. Acton and colleagues (1993) found that Plains Indians,
including the Shoshone and Arapaho tribes, had a diagnosed diabetes rate of 3.6 times the national average and 12.5% of the population as being diagnosed with diabetes.

Capriccioso (2009) reported that 12% of the Wind River Reservation population is diagnosed with diabetes and that diabetes is the fourth leading cause of death among this population.

Cavanaugh et al. (2008) sought to find a cultural definition of health and diabetes by interviewing twenty Native American men. After conducting several interviews with Native American men, diabetes was culturally defined as a long term illness with feared complications ranging from kidney failure to amputations. One man in the study suggested, "...[Diabetes is] just one death sentence as far as I'm concerned" (p. 1037). Many of the men had friends or family members who had died due to this disease or its complications, thus the reason for a more pessimistic outlook. The men reported learning about diabetes from friends or family who had diabetes, through stories passed between people in the tribe, and in some instances from Indian Health Services or the employees who worked there. According to the Centers for Disease Control in 2006, diabetes was ranked number four on the leading causes of death for Native Americans and Alaskan Natives.

Diabetes treatment focuses heavily on dietary recommendations for diabetic patients. Nutritional guidelines published by the American Diabetes Association (ADA) are used to control weight and diabetes through dietary intake rather than the use of insulin alone. Following the dietary guidelines can help manage diabetes in a positive way (ADA, 2009). Yet in a study conducted by Eilat-Adar (2008), adherence to dietary guidelines by Native American populations with diabetes (as well as the entire U.S.
population) is low. The study revealed that intake of saturated fat and sodium was higher than recommended and the intake of dietary fiber was lower than recommended. Native American men attributed unhealthy eating habits to the high cost of healthy food and the low income rate of Native American people (Cavanaugh et al., 2008). Diabetes and its correlating illness, obesity, can also be negative factors in the development of chronic liver disease.

**Chronic Liver Disease.** Castor et al. (2006) identified the mortality rate of chronic liver disease (CLD) for Native Americans as 25.5 per 100,000 as compared to 10.4 per 100,000 for the entire U.S. population, representing a major health disparity. In addition, the Centers for Disease Control (2006) identifies chronic liver disease as the fifth leading cause of death afflicting Native Americans, making this health disparity a significant concern.

Chronic liver disease has many different etiologies: chronic hepatitis C, alcohol-related liver disease, nonalcoholic fatty liver disease, chronic hepatitis B, hemochromatosis, autoimmune hepatitis, undetermined etiology, and clinically recognized cirrhosis (Biale et al., 2008). According to Bialek et al. (2008), "In 2002, the proportion of deaths attributable to chronic liver disease was more than 4 times greater among American Indians and Alaska Natives than among the overall U.S. population." (p.849)

In a study on Al/AN’s by Scott and Garland (2008), it was noted that high rates of viral hepatitis and alcohol use were correlated to unexplained liver disease. The authors state: "Alcohol has long been recognized as the most important cause of cirrhosis and liver-related death in Al/AN and continues to be the most common cause of CLD."
However, non-alcoholic fatty liver disease is another common etiology that correlates to chronic liver disease. This etiology is directly correlated with, and is a common consequence of, obesity and type 2 diabetes (Scott & Garland, 2008). Thus the various etiologies leading to chronic liver disease are the result of more than one underlying factors.

**Underlying Factors Influencing Health Disparities**

**Socioeconomic Factors.** Socioeconomic factors are often underlying causes that negatively influence health disparities. American Indians/Alaskan Natives were identified by Castor, et al. (2006) as being twice as likely as the general population to be unemployed and living below the national poverty level. Sarche and Spicer (2008) further corroborate this: “More than one-quarter of the American Indian and Alaskan Native population is living in poverty, a rate that is more than double that of the general population and one that is even greater for certain tribal groups (e.g., approaching 40%).” (p.2)

Rurality is identified as another important barrier to healthcare access and cancer screening behaviors, which leads to poor health and chronic healthcare conditions, therefore the combination of poverty and rurality can be deadly (Muus et al., 2009; Sarche & Spicer, 2008). According to Palacios, Butterfly, and Strickland (2005):
AI/AN populations have the highest rates of depression, suicide, and diabetes of any ethnic minority in the US and are the most likely to lack prenatal care. Smoking and alcoholism are more prevalent among AI/AN than among Americans in general. Some of these problems are related to low socioeconomic status, poverty, limited education, high unemployment, and intergenerational pain (cultural heaviness) as a result of historical injustices and disenfranchisement. (p. 39)

Schlundt et al. (2004) states:

Economic inequalities between groups contribute to the development of health disparities by influencing access to societal resources, where one can afford to live, exposure to environmental hazards, and behavior. Stress associated with low socioeconomic status, living in inner city neighborhoods, and/or racism and racial discrimination may also contribute to group differences in behavior and health outcome. (p. 84)

**Substance Abuse.** The prevalence of alcohol and substance abuse in Native Americans is among the highest rate of use by any ethnicity, and also one of the most misunderstood illnesses affecting Native Americans. The use of alcohol, for example, is so extensive that Native Americans are five times more likely than Caucasians to die of alcohol related deaths (Office of Minority Health, 2009). However, statistics alone do not address underlying causes and concerns influencing substance abuse by Native Americans.

Young and Joe (2009) identify Native Americans as having the highest percentage rates of illicit drug use in comparison to other ethnic groups, with usage rates
higher for Native Americans of all age groups in relation to all age groups of other ethnicities. According to the information provided by Young and Joe (2009) Native Americans have higher rates of use for marijuana, cocaine, inhalants, hallucinogens, and non-medical use of prescription-type psychotherapeutics than all other ethnicities within the U.S. They also cite: "Data on the use of more addictive drugs also indicate high usage rates among AI/ANs compared to other groups." (p.

Szlemko, Wood, and Thurman (2006) found that alcohol use among Native American tribes varies, but as a whole Native Americans have a higher rate than the total alcohol use rates of the entire U.S. population. The authors discuss the unique culture of Native Americans and the historical and present disruption alcohol has caused within tribal cultures. Yet, there is no clear explanation as to why alcohol abuse among Native Americans tends to have a higher prevalence; however, there are studies that explain some possible theories. Caetano, Clark, and Tam (1998) reported that, although there is no reliable way to assess the underlying causes of drinking patterns among Native Americans due to the diversity of each tribe, there continue to be theories, such as the following:

Some theories focus on societal factors, such as poverty, unemployment, lack of opportunity, and lack of integration into either traditional Native American or Western culture. Other theories posit that Native Americans drink to cope with various negative emotions, including low self-esteem, anxiety, frustration, boredom, powerlessness, isolation, hopelessness, and despair. (p. 237)

Recent studies are in support of these theories and apply other theories of underlying factors as well. Garrett and Carroll (2000) identify historical factors, isolation,
generational differences, unemployment, poverty-level incomes, and coping methods as underlying concerns that can be attributed to the use of alcohol or other substances. French (2004) cited historical factors, such as limited contact with alcohol before the arrival of European settlers and therefore no norms to regulate drinking, as underlying causes related to the occurrence rate and problems associated with alcohol abuse.

Research to determine the causes of substance abuse is ongoing; however, prevention and treatment are concurrently being addressed. Traditional practices along with biomedical services are used in conjunction to treat substance abuse. Borkan, Culhane-Pera, and Goldman (2008) found that there are barriers to Native Americans receiving adequate care for substance abuse in mental health. Szlemko, Wood, and Thurman (2006) found that these barriers would include incorrect diagnoses, inaccessibility of Indian Health Services, or unused preventative measures. While prevention efforts may prove beneficial to one tribe, they might impinge on the culture of another. For example, the use of tobacco (e.g., smoking) may be problematic for one tribal culture, and a smoking cessation campaign emphasizing the harmful effects of tobacco would be an appropriate preventative strategy. On the other hand, the same “stop smoking” campaign could be inappropriate when used with a tribal culture using tobacco for ceremonial purposes.

**Obesity.** Manson, Skerrett, Greenland, and VanItallie (2004) describe obesity as a chronic life threatening condition that affects every racial and ethnic group of people. The United States population as a whole is becoming increasingly obese due to the large portions of food people consume and a concurrent decrease in physical activity (Manson et al., 2004). Linked to decreased quality of life, decreased ability for physical function,
premature deaths, and 90 billion dollars in healthcare costs annually, obesity is affecting many facets of life. Obesity is also known to be a precursor to many chronic illnesses such as cardiovascular disease, cancer, gallbladder disease and type II diabetes (Compher, 2006; Manson et al., 2004). This increasing epidemic is taking a toll on the people who have the disease, the economy, and the healthcare industry (Manson et al., 2004).

Smith, Bartee, Dorzynski, and Carr (2009) describe obesity as nationally impacting all racial and ethnic groups; however, Native American (NA) youth seem to be affected to an even greater extent than members of other ethnic groups. Obesity among Native American youth is 2 to 3 times higher than the national average. Childhood and youth obesity may be a problem that continues into young adulthood and, if not treated, affects people for most of their lives. Contributing factors to the NA obesity epidemic are theorized to include decreased activity level, genetics, and a decrease in the availability of healthy food choices due to the minimal incomes most Native American families have to rely on for sustenance (Smith et al., 2009).

Regarding physical activity, Smith et al. (2009), conducted a study to answer whether out-of-school periods, such as holidays and summer vacation, affect youth Body Mass Index (BMI) scores of Northern Arapaho and Eastern Shoshone youth. Approximately 60 percent of the youth in this study were at, or above, the 80th percentile BMI score for their age group. Though the study found no direct correlation between out-of-school periods and the increase in BMI, the fact that the students were obese with no regard to the season or out-of-school period indicates that there is an increased need for physical activity throughout the course of the year. However, access to physical activity
is complicated due to the isolated geographic location of the Wind River Reservation. If
direct access to physical activities is limited, it may also compound the obesity problem
on the reservation (Smith et al., 2009).

Jollie-Trottier, Holm, and McDonald (2008), in a search to identify risk factors
contributing to the obesity epidemic, found that over half of native children who
participated in their study were sedentary for two to five hours a day. Inactivity, body
dissatisfaction, and increased dieting were reported by the heavier children. Even though
the children had healthy food intentions, they may have made unhealthy food choices.
However, the authors suggested that the children’s healthy food intentions may have been
hindered due to a lack of access to healthy foods (Jollie-Trottier et al., 2008).

In a study conducted by Cunningham-Sabo, Bauer, Pareo, Phillips-Benally,
Roanhorse et al. (2008) perceived barriers to healthful eating were identified as the
availability and cost of food, preferences and habits in eating, time pressures, and a lack
of knowledge and education in nutrition. Enablers to healthy eating were as follows:
Schools and educational systems support, as well as support or modeling from a spouse
or friend. Manson et al. (2004) concur that the consumption of unhealthy foods may be
due to many different factors including education about healthy food choices and the
possibility of limited financial ability to buy healthy foods; consequently the obesity
epidemic is most likely due to a combination of factors (Manson et al., 2004).

Finally, regarding obesity; it is a precursor leading to various other illnesses
including type II diabetes, hypertension, and poor body image (Manson et al., 2004).
Both Manson and colleagues (2004) and Jollie-Trottier and colleagues (2008) point out
that the obesity epidemic needs to be addressed and the needs of the Native American population must be considered when addressing this health issue.

Due to the high mortality rates of chronic health concerns affecting Native Americans, it is imperative to learn about these health disparities as well as developing culturally appropriate strategies for addressing health concerns. When treating Native American patients, there are many things to consider and so models of treatment are identified and discussed.

**Models of Treatment**

Many intervention models are used to treat the various health disparities Native Americans face and the following passages examine some of the more well known methods found in the literature. Mentioned earlier, the Wellbriety movement (Coyhis & Simonelli, 2008) is a holistic program that attempts to intervene with health disparities such as cardiovascular disease, cancer, unintentional injuries, diabetes, and chronic liver disease. Wellbriety is a word meaning “...both sober and well...to a life of deeper wellness” (Coyhis & Simonelli, 2008, p. 1947). Wellbriety utilizes and promotes indigenous values and knowledge in healing. For example, the program emphasizes a journey of healing that contextualizes health disparities using concepts such as cultural oppression and suppression, consideration of the deep wounding of multiple historical traumas perpetrated against native cultures passed down through generations, pressures of assimilation that result in the disappearance of native identity, strengths, values, and customs; and disenfranchisement by the dominant culture in accessing resources and opportunities. Although the journey of healing recognizes past wrongs, it emphasizes
"...this is a journey that we must make ourselves in our communities as Native people” (Coyhis & Simonelli, 2008, p. 1944).

Other programs focus on prevention, such as the Medicine Wheel to decrease the growing trend of alcoholism (Szlemko, Wood, & Thurman, 2006) and its impact on occupational functioning. The Medicine Wheel is a concept from Native American culture and is derived from universal principles of sharing, caring, kindness, humility, trust, honesty, and respect (Montour, 2000). The Medicine Wheel is a set of symbols that constructs a harmonic world, as well as for each individual.

According to Conti (2006) the Medicine Wheel is used by many tribes to educate people on the balance of all natural structures. A typical Medicine Wheel has four sections each symbolizing a different significant area. Conti (2006) reports how the Medicine Wheel can be used as an educational technique by matching the four nutritional components of Native American customary food systems and further recognizes the use of Medicine Wheels as a preventative tool when working with populations affected by chronic health concerns, such as diabetes and obesity (Smith et al., 2009)

Another health enhancing strategy is the Circle of Life. Garrett and Carroll (2000) discuss the traditional Native American Circle of Life and how substance dependence is portrayed as a weakened or broken part of the circle. The continuous circle represents control, balance and harmony, and its symbolism is derived from traditional beliefs in life and the connection to nature (Garrett & Carroll, 2000). A broken circle is said to occur from straying from the balance and harmony of one’s self and all that it encompasses, including the creator. Garrett and Carroll (2000) suggest that many underlying factors contribute to the broken circle such as: historical factors, socioeconomic, psychological,
physiological, and acculturation factors. Another indigenous treatment model used to
 examines the modification of AA to incorporate Native American culture such as
 incorporating the Medicine Wheel and other healing strategies as a way to promote
 prevention and treatment.

 With the use of culturally appropriate educational programs, awareness of disease,
 health education, and increased participation in check-ups, the rate of health disparities
 might be lowered (Cavanaugh et al., 2008). For occupational therapists who will be
 working with Native American Indians, the significant rates of cardiovascular disease,
 cancer, unintentional injuries, diabetes, and chronic liver disease and their associated
 functional problems and mortality rates are very important to understand and consider
 when treating members of this population. Many illnesses can be prevented or can be
 treated effectively when the correct precautions and guidelines are communicated
 effectively and then followed by patients and clients. Occupational therapists will, at
 some point, have Native American patients who are in need of education and guidance
 regarding their life choices and, with the proper tools, occupational therapists will be able
 to provide culturally competent treatment for this population (Cavanaugh et al., 2008).

 For Wyoming occupational therapists, a necessary preface to treatment is to learn
 more about the two major tribal nations inhabiting the state. These nations are the Eastern
 Shoshone and Northern Arapaho inhabiting the Wind River Reservation and a description
 of each follows.

 Wind River Reservation

 The Eastern Shoshone and Northern Arapaho are two of the 562 federally
recognized tribes currently in the United States (U.S. Department of the Interior, 2009). The two tribes are located on the Wind River Indian Reservation centrally located in Wyoming. The reservation consists of 2.2 million acres, making it one of the largest reservations in the United States (Wind River Indian Reservation, 2008). Although both tribes are categorized as Plains Indians, they historically have held different cultural beliefs and continue to hold varying beliefs today (The Shoshone Indians, 2003).

The Eastern Shoshone and Northern Arapaho maintain strong ties to their spiritual heritage. Each tribe holds a very distinct spiritual heritage and each member holds even more distinct, personal spiritual beliefs. The following discussion will help practitioners learn more about providing effective, competent, and holistic treatment of the individual, considering both the body and mind. This discussion is intended to create an awareness of the similarities and unique tribal differences.

Eastern Shoshone. There are approximately 2,500 tribal members enrolled in the Eastern Shoshone tribe. The tribe did not always occupy the Wind River Valley, but originated in the Great Basin area of Utah and Nevada and the Rocky Mountains in the 1600s, and by the 1800s ranged from southwest Montana to southwest Wyoming along the eastern border of the Rocky Mountains. Like most plains tribes, the Shoshone were an itinerant tribe; in the year 1860 they relocated to a place called Warm Valley, currently known as the Wind River Valley, in search for food and to escape severe winters and hostile tribes (Wind River Indian Reservation, 2008). The Eastern Shoshone faced many struggles with new settlers moving across America along with the many battles to hold on to their identity. It was not until the Fort Bridger Treaty in 1868 that the reservation was established (Cole Trenholm & Carley, 1967) and the Eastern Shoshone had an
established and permanent home.

Currently, many of the Eastern Shoshone tribe inhabit the Wind River Reservation located in Wyoming. The reservation is shared with the Northern Arapaho tribe, though both tribes have separate governments or tribal councils within the reservation. The tribal councils jointly lead the reservation in law reform, law enforcement, and the utilization of resources. The population of the two tribes is approximately 7,882 people, which is about 21% of the population of Fremont County (U.S. Census Bureau, 2006-2008). This constitutes about one fifth of the population for Fremont County, which, although not large, is significant.

One unique aspect of the Eastern Shoshone is how they derived various pieces of their language, culture, and spirituality from other cultures such as the Basin, the Plateau, and the Plains nations (Eastern Shoshone Tribe, 2009). According to the Eastern Shoshone, they are proud people who participate in traditional practices including speaking their unique language of Shoshone, which is a numic language and a part of the larger Uto-Aztecan language family, which once encompassed Native American cultures extending from the Great Basin to Central Mexico (Wind River Indian Reservation, 2008).

Northern Arapaho. The Northern Arapaho tribe is considered to be Plains Indians in the cultural context but is distinct from other Plains Indians in their social and historical context. They speak a dialect of the Algonquian language, which further separates them from the traditional Plains Indian tribes (Wind River Indian Reservation, 2008). The Algonquians, whose territory ranged along the East coast of the U.S. into Canada, are the distant forefathers of the Arapaho tribe. The Algonquians lived in
wigwams or tents made of animal hide, and used canoes to travel the waters surrounding them. Although the Algonquian people were woodlands people, they share traditions, belong to the same linguistic family, and recognize the same higher power, *Man Above* (Cole Trenholm, 1986, p. 3). The exact way in which the Arapaho separated from the Algonquian tribe is unknown (Cole Trenholm, 1986).

The Arapaho occupied a territory ranging from the Cheyenne River in the north to eastern Colorado in the south, from the Black Hills in the east to the Rocky Mountains in the west at the beginning of the eighteenth century. Their traditional buffalo hunts would sometimes extend to Nebraska and Kansas. The Arapaho originally had a large territory that made it easy for them to move freely with the use of horses. The Arapaho people are traditional enemies of the Shoshone, Crows, and Utes (Cole Trenholm, 1986). The Northern Arapaho people were originally asked by the U.S. Government to join the Southern Arapaho on a reservation in Oklahoma. The Northern Arapaho were not pleased with this arrangement since a tribal leader by the name of Black Coal had gone to inspect the reservation in Oklahoma and found it filled with disease. Black Coal was determined to find a way for his people to stay in their traditional lands in Wyoming. A plan was devised to stay by having tribal warriors sign on with the U.S. Army to be scouts. Once proven to be good scouts and loyal to the Army, respect from the U.S. government ensued (Fowler, 2006). With the Army’s help in 1877, Black Coal was able to travel to Washington, DC, and succeeded in convincing President Hayes to allow his people to stay in Wyoming. In the spring of 1878, Black Coal and the Northern Arapaho people joined the Eastern Shoshone tribe on the Wind River Reservation in Wyoming (Fowler, 2006).
There are currently about 5,000 people enrolled in the Northern Arapaho tribe. Tribal members are working hard to retain their cultural identity and to preserve their language. In an attempt to educate more tribal members of their heritage, the Northern Arapaho and Eastern Shoshone tribes opened a tribal college on the reservation. The Wind River Tribal College teaches various subjects including the Arapaho language and the Shoshone language (Wind River Indian Reservation, 2008). In addition, the Wind River Reservation is the site of many ongoing technological and economic development programs, a native language radio station, and has its own press.

Native American tribal members are important members of society and have much to offer. Due to the rocky history between Caucasian Americans and Native American populations it is imperative to learn about their cultures and to challenge one's own perceptions and beliefs about the Native American population. To treat effectively and with the best interest of these patients in mind, an occupational therapist must become culturally competent.

Introduction to the Cultural Competency Guide

Framework. In order to facilitate cultural competence for the practitioner and weave in culturally applicable topics, the framework chosen for this project is the Cultural Competency Model, created by Roxie Black and Shirley Wells. Black and Wells (2007) describe the importance of cultural competency in the occupational therapy field this way:

... [I]t should be evident that occupational behavior and choice do not happen apart from cultural influences, which have many levels of influence.... All occupational therapists must make an effort to know their clients and how the
clients’ beliefs and values affect the way they view health, their own illness, their belief in recovery, and their understanding of both their role and the occupational therapist’s role in that process. (p. 13)

The Cultural Competency Model is a foundation to use for developing and evaluating a healthcare professional’s progression on the cultural competency continuum. The model is based upon self-exploration, knowledge, and skills. Self-exploration is used to reflect and find new avenues for treatment based upon past experience. Knowledge refers to the understanding of other cultures and the knowledge of how to seek out additional information. Skills are the strategies, techniques, and approaches a therapist must master for optimal interaction and communication with various cultures to improve healthcare delivery (Black & Wells, 2007).

In addition, program/project planning tools were utilized through the University of Wisconsin Program Extension Development and Evaluation website to create a logic model (Braveman, Engle, Arnold, & Rennenkemp, 2008). Logic models are useful for determining strategic and tactical designs for health program planning and evaluation (Keller & Bauerle, 2009), as well as a graphical communication tool that represents a program’s resources, activities, target audiences, and anticipated outcomes (Price, Alkema, & Frank, 2009), and for use in making subsequent program improvements (Page, Parker, & Renger, 2009).

**Purpose of the cultural competency guide.** The logic model provides a foundation that guided that creation of the product. Utilizing the logic model helped the authors stay focused on the situation and priorities as well as the desired outcomes. The situation and desired outcomes led the authors to create a cultural competency guide that
included the following: healthcare concerns, the tribes historical and present contexts, suggested patient and practitioner interactions, and other information as well.

The beginner’s guide is designed to facilitate an occupational therapy practitioner’s exploration of culturally competent treatment for the Northern Arapaho and Eastern Shoshone tribes for the occupational therapy practitioner. The guide includes a definition of cultural competency and its relevance to occupational therapy practitioners. Further descriptions of both the Northern Arapaho and Eastern Shoshone tribes’ culture and background are included, along with traditional healing and spirituality aspects that may be encountered when treating this population. Major healthcare concerns are discussed regarding these two tribes to provide important information for the OT’s. To address individual cultural differences for given patients, guidelines and a suggested interview format is provided as well.
CHAPTER III
METHODOLOGY

Overview of the Cultural Competency Guide and Relationship to the Literature

The authors decided to create a cultural competency guide for occupational therapists working with the Northern Arapaho and Eastern Shoshone tribes because the need for the product was amply demonstrated during the authors’ fieldwork experiences and later during the search for literature. During one fieldwork, for example, the second author noted how the reoccurrence of patients from the Wind River Reservation influenced how the occupational therapists implemented treatment (e.g., feelings of frustration and futility in treating). The experience led the second author to questions and inquiries regarding how the population of the Wind River Reservation could benefit from culturally competent care. The first author grew up on and near the Wind River Reservation, and hopes to return to living and working in the region. However, as a result of her occupational therapy education and fieldwork experiences she recognized a need to challenge her own perceptions and increase her own competencies in working with these tribal nations. Since no cultural competency training specific to the Eastern Shoshone and Northern Arapaho could be identified, creating the guide became a priority.

The U.S. Census Bureau (2006-2008) estimates the population of the Wind River Reservation, centrally located in Wyoming, as approximately 7,882 people. The reservation consists of both Northern Arapaho and Eastern Shoshone people. When working with Native Americans, healthcare workers may feel increased challenges in providing care due to the complex nature of the culture (Office of Minority Health,
The Native American population is unique in healthcare needs due to the multifaceted nature of the culture.

According to the Office of Minority Health (2009), the American Indian and Alaskan Native (AI/AN) populations are often diagnosed with chronic illnesses and are thus afflicted by major health disparities. Cardiovascular disease, cancer, unintentional injuries, diabetes, and chronic liver disease are identified as the top causes of death affecting American Indian and Alaskan Native (AI/AN) populations (Office of Minority Health, 2009; Castor et al., 2006). The healthcare disparities affecting this population are due to multifaceted and varied underlying factors.

Since these chronic illnesses and major health disparities frequently lead to or influence impairment in occupational functioning and activities of daily living, Occupational Therapists (OT’s) in Wyoming need to become competent in understanding the culture of the members of the Wind River Reservation in order to enhance quality healthcare to this population. Cultural competence is essential for providing quality healthcare in occupational therapy because it helps to build rapport and establish the provision of effective treatment (Black & Wells, 2007).

In choosing to create the product first, the authors became aware of some limitations during planning. Since the guide was not created collaboratively with any stakeholders the implementation of the guide should be done with caution. Further evaluation should be conducted first. In considering recommendations for evaluation, the authors believe it is important to have the product as something stakeholders can respond to in making improvements or validating content.
Description of Tools and Procedures

In order to organize the creation of the guide and promote results-based performance the authors chose to use a logic model as a project development tool. Please refer to Appendix B. The instrument utilized is a logic model that is the creation of the University of Wisconsin’s Extension Program Development (Taylor-Powell & Henert, 2008) which provides open source templates and planning tools. The logic model is a graphical model that describes the sequence of steps needed to create a program or product, including what the program/product is and what it will do. Creating logic models helps with the tasks of planning, implementing, evaluating, and communicating more effectively.

Included within the logic model are the following planning components: researching the situation and developing priorities, determining inputs needed to create the project, deciding on activities and targeted participants, developing outcomes, reviewing assumptions, considering external factors, and planning project evaluation. These components help to organize the product and provide a clear direction for planning. The model allows for the completion of a product, the evaluation of the product, and then revision as necessary, since it incorporates a feedback loop design and evaluation plan. The design also accommodates feed-forward mechanisms to gather information from stakeholder sources, experts, and research into situations and underlying factors. According to the University of Wisconsin website:

The UW-Extension logic model draws on experience with the USAID Log Frame (~1971) and the hierarchy of program effectiveness (Bennett, 1976; later with Rockwell, 1995), long a program evaluation framework in Cooperative Extension

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nationwide as well as work by Wholey, 1979, 1987; Mayeske, 1994; Reisman, 1994; United Way, 1996; Montague, 1997 and others.

A succinct model is shown in Figure 1.1

According to Taylor-Powell and Henert (2008), programs (viz. projects) are developed in response to a situation. A logic model can display the relationships among core elements, as well as bring attention and consideration to underlying assumptions, as well as situate the project in an environment of external factors. Regarding analysis of the situation, Taylor-Powell and Henert (2008) advises one should identify the originating problem, or issue, as well as consider where it is situated within a complex of sociopolitical, environmental and economic circumstances.

![Figure 1.1: Summary of University of Wisconsin Logic Model](image-url)
Process for Gathering Information and Developing the Guide

In the case of the current situation, the authors regarded the needs, cultural assets, symptoms, root causes, stakeholders, and priorities that needed to be addressed.

1. The needs were identified through the extensive literature review.

2. The Eastern Shoshone and Northern Arapaho experience symptoms of poor health through chronic illnesses such as cardiovascular disease, cancer, diabetes, and chronic liver disease as well as other significant health disparities including unintentional injuries.

3. Several theories describe the root causes of the disease burden which are complex and multi-factorial, such as ongoing oppression, lack of power and choice, genetics (nature vs. nurture), lack of information and informed choices, poor opportunities, isolation, and an insufficient health infrastructure.

4. Despite adversity, both the Northern Arapaho and Eastern Shoshone tribes display cultural assets described as resistance, resilience, and continuing participation in spirituality, ceremonies, rituals, bonds, and relationships that promote health and cultural survival.

5. The stakeholders were determined to be: Eastern Shoshone and Northern Arapaho tribes, IHS, Occupational Therapists in the Wind River Region, Students, and the UND OT Department.

6. The priority was to develop a cultural competency product because one does not exist regarding the Northern Arapaho and Eastern Shoshone Tribes for occupational therapists.
Assumptions are the beliefs one has about the program/project; the people involved and how one thinks the program/project will operate (Taylor-Powell & Henert, 2008). Faulty assumptions are often the reason for poor results, thus a logic model helps make one’s assumptions explicit and avoid such faults. In the current situation, the authors make two primary assumptions:

1. Wyoming requires culturally competent therapists to work with the Eastern Shoshone and Northern Arapahoe.

2. The Eastern Shoshone and Northern Arapahoe tribes share a disproportionate disease burden compared to other ethnic populations and will be supportive of a developing cultural competence guide for occupational therapists.

Inputs are resources that go into a program including staff time, materials, money, equipment, facilities, volunteer time (Taylor-Powell & Henert, 2008). The resources that went into the product included the authors’ and advisor’s time and energy, the time for researching the literature review, creating the product, and making recommendations for future evaluation of the product.

Outputs are the activities, products, and participation generated through the investment of resources and includes the goods and services delivered (Taylor-Powell & Henert, 2008). In the current situation, it was determined that an investment of resources be directed toward producing a cultural competency guide. Future activities are proposed that include evaluating the product and disseminating it.

Outcomes are the results or changes emanating from the program or project, such as changes in knowledge, awareness, skills, attitudes, opinions, aspirations, motivation, behavior, practice, decision-making, policies, social action, condition, or status and
The predicted outcomes of the cultural competence guide are: to learn about cultural competency and to become familiar with the Eastern Shoshone and Northern Arapaho (short term); to change attitudes, opinions, and beliefs towards the Northern Arapaho and Eastern Shoshone regarding health disparities (intermediate), to develop the skills, knowledge, and attitudes to provide culturally competent treatment (intermediate); and, ultimately to improve the health of Eastern Shoshone and Northern Arapaho people as well as increase occupational justice resulting in satisfying and healthful participation in daily life (long term).

External factors are influences that affect the program and over which there is little control (Taylor-Powell & Henert, 2008). Aspects external to this project that could influence the way the product is used include the following: we cannot control people’s individual choices, attitudes, and actions towards the Northern Arapaho and Eastern Shoshone; we cannot change everyone’s stereotypic beliefs and hard held assumptions; we cannot change the global effects of poverty, learned helplessness and/or all oppressive forces acting upon the culture; and, we cannot change policy and law today regarding these tribal nations.

As part of the logic model process, the authors considered the type of evaluation that could be utilized to give more validity to the product. The evaluation process is proposed to consist of engaging the stakeholders, focusing on the purpose of the product and its intended users, data collection and analysis, and the use of the data or research such as product revision. The authors described a plan in which the product could be
effectively evaluated. For further description please refer to the evaluation section in Appendix C.

Figure 1.2: Logic Model for Cultural Competency Guide
CHAPTER IV

PRODUCT

The purpose of this product is to provide a beginner’s cultural competency guide for occupational therapists in working with the Northern Arapaho and Eastern Shoshone tribes. Sections are devoted to describing cultural competency, the process of achieving cultural competency and the importance of competency in relation to the occupational therapy profession and client interaction and interventions. Native American demographic data is discussed in combination with the underlying factors that contribute to perceptions and occurrence of these health disparities such as stereotypes, socio-demographics, and racism, among others. The Northern Arapaho and Eastern Shoshone tribal histories and current status are explored. Following this section, suggestions for patient and practitioner interactions are identified. The very last portion of the guide is a resource section that provides additional sources to find information regarding the previous headings.

To provide the best possible treatments, occupational therapists need to be culturally competent. This capability helps establish rapport with patients and helps facilitate effective treatment techniques (Black and Wells, 2007). Awareness of other cultures and their histories ensures that we are providing treatment reflective of the occupational therapy process and the culture’s traditional practices.

Recognition of the cultural roots of Native Americans and significant differences between tribal practices is a very important component to providing quality, culturally sensitive treatment. The Native American culture is a uniquely dynamic group comprised of hundreds of tribes throughout the United States. Currently, there are over 500 tribes in
the United States today accounting for 1.9 million people (U.S. Department of the Interior, 2009).

The Northern Arapaho and Eastern Shoshone tribes are two tribes that need to be considered when beginning the journey of becoming a culturally competent practitioner working in Wyoming. Both of these tribes originate from entirely different backgrounds but share a home on the Wind River Reservation. A foundation for culturally sensitive and client-centered treatment can be achieved by developing cultural competency for these tribes.

There are many, diverse, and serious healthcare concerns among this population. The major healthcare concerns and health disparities of cardiovascular disease, cancer, diabetes, unintentional injuries, and chronic liver disease were chosen as the healthcare concerns to be focused on due to the identification of these as the top five causes of death among the Native American population (Centers for Disease Control, 2006). For example, Native Americans are five times more likely than Caucasians to die of alcohol related deaths demonstrating the high prevalence of alcoholism in Native Americans as being among the highest rate of any ethnicity (Office of Minority Health, 2009). These disparities should generally be underscored by noting the ongoing forces of cultural oppression that affect the relationship between health providers and Native American people (Cashin, 2001; Duran, Firehammer, & Gonzalez, 2008). Statistical information and occupational therapy treatment ideas or techniques are explored as well, for these healthcare concerns.

The authors based the cultural competency guide on the Cultural Competency Model created by Roxie Black and Shirley Wells, which can be found in Appendix A.
Regarding occupational therapy, this model describes the importance of cultural competency. Black and Wells (2007) state that:

...[O]ccupational behavior and choice do not happen apart from cultural influences...All occupational therapists must make an effort to know their clients and how the clients’ beliefs and values affect the way they view health, their own illness, their belief in recovery, and their understanding of both their role and the occupational therapist’s role in that process. (p. 13)

Such understanding will help occupational therapists develop and evaluate their progression on the cultural competency continuum. Self exploration, knowledge, and skills are the foundational approaches this model is based upon. Self exploration is used to reflect and find new avenues for treatment based upon past experience as well as new activities. Knowledge refers to the understanding of other cultures and the knowledge of how to seek out additional information. Skills are the strategies, techniques, and approaches a therapist must master for optimal interaction and communication with various cultures to improve healthcare delivery. Within the product a description of the process to achieving cultural competency is identified according to Black and Wells (2007).

The Northern Arapaho and Eastern Shoshone tribes require culturally competent occupational therapists. This cultural competency guide implements the following learning objectives to help the practitioner facilitate and increase cultural competency regarding the Northern Arapaho and Eastern Shoshone tribes:

1. Be able to define culturally competent care in the provision of OT services.

2. Understand the practitioners’ process of becoming culturally competent.
3. Develop increased awareness of the Northern Arapaho and Eastern Shoshone tribal histories.

4. Be familiar with Native American traditional health care practices.

5. Acknowledge prevalent health care issues among the tribes and underlying factors.

6. Incorporate the history of the tribes, traditional health care practices, and prevalent health care issues into cultural competent OT practice.

7. Identify strategies for providing and maintaining culturally competent practice with the tribes.

8. Identify local tribal resources for referral services and information.
CHAPTER V

CONCLUSION

Summary of the Purpose and Overview of the Cultural Competency Guide

The authors created a cultural competency guide for occupational therapists working with the Northern Arapaho and Easter Shoshone tribes because the need for the product was amply demonstrated during the authors’ own fieldwork experiences and later during the search for literature. Since no cultural competency training specific to the Easter Shoshone and Northern Arapaho could be identified, creating the guide became a priority.

The students designed the cultural competency guide to be a beginner’s guide into the culturally competent treatment of the Northern Arapaho and Eastern Shoshone tribes for the Wyoming occupational therapy practitioner. This product is a resource guide that contains discussions on demographics, myths and stereotypes, healthcare concerns, specific information regarding the Eastern Shoshone and Northern Arapaho tribes, and suggestions for therapists working with these Native American tribes. However, the resulting product should not be considered the only means through which someone should achieve cultural competency. The process is ongoing and constantly unfolding.

The guide is based upon the Cultural Competency Model written by Black and Wells (2007). The Cultural Competency Model approaches treatment form a cultural perspective both for the occupational therapist and the client. Black and Wells (2007) believe that in the confluence of cultural competency and mastery of new skills the occupational therapist can provide enhanced healthcare for differing cultures. This model
gives a very strategic approach to becoming culturally competent which is outlined within the product.

**Limitations of the Cultural Competency Guide**

While in the process of creating the product, the authors became aware of some limitations during planning. Since the guide was not created collaboratively with any stakeholders, implementation of the guide should be done with caution. Further evaluation should be conducted. In considering recommendations for evaluation, the authors believed it is important to have the product as something the stakeholders could respond to. While other models were also overviewed, only the Cultural Competency Model written by Black and Wells was specifically used throughout the process and creation of the product, which further limits the product.

**Measurement of the Cultural Competency Guide's Usefulness/Outcomes**

As part of the logic model process, the authors considered the type of evaluation that could be utilized to give more validity to the product. The future evaluative process should consist of engaging the stakeholders, focusing on the purpose of the product and its intended users, data collection and analysis, and the use of the data or research to revise the guide. Such evaluation could be conducted during focus groups, by expert reviewers, or other qualitative means. The authors propose a plan included with the product. For further description of the evaluation please refer to Appendix C.

**Recommendations for Future Action, Development and Research**

In order to promote acceptance and to assess the usefulness of the guide, it is suggested that future research be conducted where the guide serves as the topic during focus groups, interviews, and expert reviews which will help keep the research focused
and relevant to the topic. The authors also recommend workshops that discuss culturally
cOMPETENT care with these tribes and utilizing pre-post tests to assess learning. A cultural
consultant may also be sought to help consolidate further research and information which
can then be used to revise the guide based upon the results of focus groups, interviews,
expert reviews, and workshops.

Potential for further scholarly collaboration.

Further research can possibly be conducted by future student scholars as a new
scholarly project that would evaluate and enhance the guide. By utilizing the evaluation
methods the authors' suggested, the future student scholars would have the ability to
identify any areas that needed to be revised and would then have the opportunity to
update the cultural competency guide accordingly.

Proposal for Implementation of the Cultural Competency Guide

Implementation of the guide depends upon the acceptance it receives from experts
within the field, the Eastern Shoshone and Northern Arapaho tribes, and practicing
occupational therapists. Dissemination also depends upon available funding.

Clinical Practice Strengths

Clinical practice strengths of the guide include being user friendly,
comprehensive, and informative. A comprehensive approach was taken to ensure that the
guide had the most pertinent information, could be considered a quick reference and an
easy to use product. The guide is strengthened secondary to the use of an established
cultural competency model.
Conclusions

This guide will be a very useful resource to occupational therapists working in Wyoming. While it does have limitations, these can be addressed with future research and revisions can be made to make the guide even more useful and accurate. The guide will allow occupational therapy practitioners to become more culturally competent by reflecting and challenging their own perceptions and beliefs and will thus positively impact the quality of care the Eastern Shoshone and Northern Arapaho tribes receive.
APPENDIX A

A Cultural Competence Guide for Occupational Therapists: Addressing Major Health Issues of the Eastern Shoshone and Northern Arapaho Tribes
A Cultural Competence Guide for the Occupational Therapist

Addressing Major Health Issues of the Eastern Shoshone and Northern Arapaho Tribes

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Introduction

Purpose

The cultural competency guide has been created because there is a need for Wyoming occupational therapists and other health providers to gain cultural competence when working with minority populations, including the Eastern Shoshone and Northern Arapaho (Wyoming Health Council, n.d.). The following cultural competency guide focuses on increasing the practitioners' awareness of the cultural competence process, information about the two predominant Wyoming tribal nations, and issues of health disparities in the United States American Indian population.

Objectives:

- Define culturally competent care
- Understand cultural competency process
- Become aware of Northern Arapaho and Eastern Shoshone tribal histories
- Develop Familiarity with Native American health care practices
- Knowing about health care issues among the tribes
- Incorporating knowledge into practice
- Identify strategies for culturally competent practice
- Identify tribal resources

"...occupational behavior and choice do not happen apart from cultural influences ..."

Black and Wells (2007, p. 13)

Polacek and Martinez (2009) noted the significance of how culture correlates to the promotion of health, prevention or early detection of diseases, access to healthcare, and trust and treatment compliance. In other words, a practitioner cannot merely treat a disease process without understanding the meaning of the illness to the individual and his/her community. Awareness of other cultures and their histories, as well as working toward cultural competence,
ensures that occupational therapists are providing treatment reflective of, the occupational therapy process and congruent with or reflective of the culture’s traditional practices.

However, true recognition of the cultural roots of Native Americans includes knowing there are significant differences between and among tribal practices. Native American culture does not have one meaning, but has multiple meanings to the group that comprise a tribal nation and personal meanings to individuals. Native Americans come from uniquely dynamic groups comprised of hundreds of tribes throughout the United States. Currently, there are over 500 tribes in the United States accounting for 1.9 million people (U.S. Department of the Interior: Indian Affairs, 2009).

In Wyoming, the Northern Arapaho and Eastern Shoshone tribes are two tribes that have health care needs requiring culturally competent practitioners. Although both tribes originate from very different backgrounds, they now share a home on the Wind River Reservation. In the following sections of the cultural competence guide, additional information about the Eastern Shoshone and Northern Arapaho will highlight and amplify these differences.

In contrast, many large studies in the past have frequently aggregated Native Americans into statistical populations that find many diverse, and sometimes severely disproportionate, healthcare concerns among these populations that may or may not hold true for each tribal nation. For example, according to the U.S. Department of Health and
Human Services Office of Minority Health (2009), over half of Native American women are obese and they are much more likely than Caucasian women to be obese. Diabetes is 2.3 times more likely to occur in Native Americans than in Caucasians (Office of Minority Health, 2009). As a whole group, some of the leading causes of Native American death are related to heart disease, cancer, accidents, diabetes, and stroke. However, one should refrain from projecting aggregated data onto specific tribal nations, and especially onto individual and familial members of tribal nations. Again, such statistics may not hold true. Many underlying factors, such as poverty, geographic isolation, prejudice and oppression, access to health services, and food insecurity (among others), may be root causes that influence health status. The main point is that large data set information must always be considered in conjunction with other cultural and environmental factors on a local level or else stereotyping and myths are perpetuated over time.

The cultural competence guide attempts to present information that will assist occupational therapy practitioners in improving cultural competence and becoming discerning users of the data, statistics, and information about Native Americans and the Wyoming tribal nations. For the purposes of this guide health disparity is defined as:

“Health disparities are differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States.” (National Cancer Institute, 2009, para. 2)
The cultural competency guide is organized to provide Wyoming occupational therapists with some demographic information on Native American populations in general. However, information and examples from the Eastern Shoshone and Northern Arapaho nations are used whenever possible. Most importantly, the process of cultural competency is explored, and an example of a model of cultural competency for occupational therapy professionals is provided. Additionally, two other models of cultural competency are included as examples.

Next, some of the cultural aspects of Eastern Shoshone and Northern Arapaho are presented, such as tribal histories, cultural beliefs, spiritual practices, and contemporary contexts. Finally, the guide presents the healthcare concerns identified by credible health organizations found to be disproportionately affecting the tribes. Developing culturally competent approaches toward these illnesses is a primary goal of each chapter by revealing misconceptions, communicating accurate information, and exploring the underlying causes of health concerns. In addition, brief information about supplementary resources is provided in the guide, including Wyoming tribal health organizations, wellness programs, and treatment centers.

For the purposes of this guide, the terms American Indian and Native American will be used interchangeably. The former terminology is not the only way to describe native tribes, nor is one more correct than the other. Fleming (2006) explains that terms are used interchangeably by researchers and academics, but whenever possible one should try to use the name of the tribe when known.
Outcomes

In order to achieve improved health outcomes, the Northern Arapaho and Eastern Shoshone tribes require culturally competent health practitioners, including occupational therapists, who will be working with tribal members in schools, hospitals, rehabilitation, and community contexts. If the guide is successful in influencing an occupational therapists’ choice to become more competent in working with the Northern Arapaho and the Easter Shoshone, the following outcomes are anticipated:

Occupational Therapists will:

- Be able to define culturally competent care in the provision of OT services.
- Understand the practitioners’ process of becoming culturally competent.
- Develop increased awareness of the Northern Arapaho and Eastern Shoshone tribal histories.
- Be familiar with Native American traditional health care practices.
- Acknowledge prevalent health care issues among the tribes and underlying factors.
- Incorporate the history of the tribes, traditional health care practices, and prevalent health care issues into cultural competent OT practice.
- Identify strategies for providing and maintaining culturally competent practice with the tribes.
- Identify local tribal resources for referral services and information.
United States Demographics

Awareness and discerning use of various sources of U.S. demographical information on Native Americans can be helpful in introducing readers to major issues regarding health and treatment approaches.

General Trends

Currently, according to Russell and Chippewa (2004), the overall Native American population in the US is becoming more dilute and acculturated into the mainstream. Yet there are 563 federally recognized tribes (and over an additional 100 state recognized tribes) in the US comprising 2.4 million people (1% of total population) out of the total U.S. population of over 2.8 billion (U.S. Census Bureau, 2000-2008). If accounting for mixed race as a category, over 4.3 million Native Americans reside in the United States, or 1.5% of the total population. Twenty-two % of Native American people live on reservations while the rest of the population lives off the reservations.

In general, Native Americans tend to be younger than the total U.S. population, with a median age of 29 years, and a range of 26-39% under the age of 18. Seventy-three % of American Indians and Alaska Natives are living in family units,
versus 68% of the rest of households in America. English is the predominant language.

**Socioeconomics**

Living at or below the national poverty level, many Native American families struggle for day-to-day subsistence. A high rate of unemployment and few opportunities for employment are partial factors. However, even for the 75% of Native Americans able to find a job, wages are significantly lower compared to other U.S. wage earners (Russell & Chippewa, 2004). Native American men earn an average of $28,900 and Native American women earn $22,800 versus $37,100 for all U.S. men and $27,200 for all U.S. women (Ogunwole, 2006). Ten thousand dollars a year is a large difference in income, especially when living in poverty and struggling to survive every day.

According to the U.S. Census Bureau (2000-2008), American Indians and Alaska Natives owned a greater number of small or entrepreneurial businesses, even though socioeconomic status is low (U.S. Census Bureau, 2000-2008). Such self-employment trends may be indicative of a strong desirability for employment among tribal members. In Wyoming, there are currently about 500 Native American owned businesses. These businesses provide jobs to many local people and bring over 34.3 billion

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**Educational Status**

- 71% of Native Americans finish high school
- 17% of Native Americans attend college
- 11% of Native Americans have a bachelor's degree (Ogunwole, 2006)
dollars into the Wyoming economy (U.S. Census Bureau, 2000-2008).

The Wind River Indian Needs Determination Survey (WINDS-2) reports that 49% of the population of adults aged 18-54 are unemployed, while 46.4% of these people are seeking and unable to find work (Joint Business Council, 1999). Of those unemployed, 68.2% reported a willingness to leave the reservation to find work. Among those who have received job training 78.7% of the 39.7% of tribal members were able to find a job in the area in which they were trained. An additional 47.5% report a desire to receive job training (Joint Business Council, 1999).

**Education**

Although lagging in educational outcomes when compared to other groups, 71% of Native Americans do finish high school compared to 80% of the total U.S. population. Regarding college education, 11% of Native Americans earn a bachelor’s degree while, 24% of the total U.S. population earn a bachelor’s degree (Ogunwole, 2006). Educational status on the Wind River Indian Reservation is reported in the WINDS-2 (Joint Business Council, 1999). The report found that 37% of Wind River Indian Reservation residents have attended college and 4.9% of those attending college attained a bachelor’s degree while 17% attained an associate’s degree and 54.1% of those attending college did not attain any degree (Joint Business Council, 1999).

**Health concerns**

Health concerns are significant, many, and varied among this population. The disproportionately high rate of illness and injury disparities are very notable compared to the rates among the rest of the U.S. population. Since it is highly likely that occupational therapists in Wyoming will work with Native American patients or clients, it is
important to be knowledgeable regarding the Native American cultures and to have the ability to provide culturally sensitive treatment. The next chapter will describe a beginning process of developing cultural competency using a model from occupational therapists Black and Wells (2007).
Cultural Competency and the Occupational Therapist

Introduction

Occupational therapy is the holistic treatment of groups, communities, and of an individual's mind, body, and soul. Yet, culture is one aspect of a person that is often overlooked. Cultural competency is a set of knowledge-based behaviors and skills that influence an individual's ability to recognize the differences between cultural groups. Black and Wells (2007) state, "Culturally competent providers allow the consumer to receive interventions reflective of both the dominant culture of the health care system and the individual" (p. 27). Culturally competent therapists remain lifelong learners, open to new and expanding ideas, and have the ability to know when and how to ask questions of their patients.

Consideration of culturally competent care is incorporated into the American Occupational Therapy Association's (AOTA) main principles of

The Occupational Therapy Practice Framework (2008) describes culture as:

"Customs, beliefs, activity patterns, behavior standards, and expectations accepted by the society of which the client is a member. Includes ethnicity and values as well as political aspects, such as laws that affect access to resources and affirm personal rights. Also includes opportunities for education, employment, and economic support."
occupational therapy practice. The Occupational Therapy Practice Framework (American Occupational Therapy Association, 2008) also reflects culturally competent care by incorporating cultural aspects of spirituality within client factors. Cultural competence enhances the understanding of a culture and helps develop client-centered practice using meaningful occupations (Odawara, 2005).

Cultural competency is more than being aware of, sensitive to, or familiar with a culture; it is incorporating an understanding and applying knowledge of the culture to practice (Saha, Beach, & Cooper, 2008). Black and Wells (2007) suggest that the process for obtaining cultural competency includes developing a personal plan that emphasizes building a support system, creating specific goals and timelines with activities that engage the OT in cultural learning, and the implementation of the described goals. The Cultural Competence Model used in this guide consists of three main characteristics: self-exploration, cultural knowledge, and cultural skill. In the following sections, these concepts will be discussed in more detail in order to familiarize the

AOTA Practice Ethics Principle 1 states:

“Occupational therapy personnel shall demonstrate a concern for the safety and well-being of the recipients of their services. Occupational therapy personnel shall:

A. Provide services in a fair and equitable manner. They shall recognize and appreciate the cultural components of economics, geography, race, ethnicity, religious, and political factors, marital status, age, sexual orientation, gender identity, and disability of all recipients of their services.”
occupational therapist with the process of becoming culturally competent.

**Cultural Competence Model**

This guide is based on concepts of the Cultural Competency Model, created by Roxie Black and Shirley Wells. Regarding occupational therapy, the model describes the importance of cultural competency. Black and Wells state that:

...occupational behavior and choice do not happen apart from cultural influences....All occupational therapists must make an effort to know their clients and how the clients' beliefs and values affect the way they view health, their own illness, their belief in recovery, and their understanding of both their role and the occupational therapists role in that process. (2007, p. 13)

The Cultural Competency Model will help occupational therapists develop and evaluate individual progression in the cultural competency continuum.

In comparison, Balcazar, Suarez-Balcazar, and Taylor-Ritzler (2009) identified many similarities in various cultural competency models and created a synthesized model using the following concepts: critical awareness, cultural knowledge, skills development, and practice application. Similarly, Black and Wells (2007) identify self-exploration, knowledge, and skills as the foundational approaches upon which their model is based. Self-exploration is used to reflect and find new avenues
for treatment based upon one's past experience. Knowledge refers to the understanding of other cultures and the knowledge of how to seek out additional information. Skills are the strategies, techniques, and approaches a therapist must master for optimal interaction and communication with various cultures to improve healthcare delivery (Black and Wells, 2007).

Self-Exploration

The basic concept of self-exploration is to prepare oneself to gain cultural competence through exploring and challenging personal biases and prejudices regarding populations that are different from the therapist’s culture. First, therapists must have a clear understanding of what culture is before they are able to attend to cultural factors in care (Bonder, Martin, & Miracle, 2004). Bonder, Martin, and Miracle (2004) found common themes defining culture as “individuals’ actions, and their attributions of meaning and value to those actions” (p. 160). Defining culture is necessary so that occupational therapists can begin the cultural competency journey and identify misconceptions they may have about a culture.

The continuous cycle of self-exploration also requires therapists to reflect on the way they think about their own culture. Self-exploration and awareness allows a person to self-reflect on who they are culturally, ethnically, and racially. “Self-reflection and evaluation can ensure that the change enhances future therapeutic interactions” (Bonder, Martin, & Miracle, 2004). When reflecting one should ask the following questions:

- How do I perceive myself in terms of culture, race, ethnicity?
- How do I perceive others’ culture, race, and ethnicity?
- What do these perceptions mean to me?
How do my perceptions form my thoughts and actions in regard to my clients and their culture, race, and ethnic identity?

Once occupational therapists can answer these questions, they will begin to recognize how their own cultural identity, beliefs, and attitudes affect their clients. At this point one may realize that no one is the same, nor should they be treated as if they were the same. Occupational therapists need to treat patients and clients individually in order to be effective practitioners. Furthering this process, questioning one’s assumptions, stereotypes, and generalizations about culture should be explored.

**Stereotypes**

Stereotypes occur when assumptions are made that generalize or categorize a group of people based on observed characteristics or behaviors of one or some individuals from that group. “Inherent within the system of care definition are biases and assumptions that result in a culturally bound process for understanding a reality that is not necessarily shared by Native people” (Cross, Bartgis, & Fox, 2009). For example, a health practitioner may assume, based on principles of patient autonomy that the practitioner should speak privately, directly, and specifically to a patient. However, depending upon the patient’s culture it may also be appropriate to address the communication to an elder. Therefore, both parties may need to be in the room when discussing the illness.

Another issue with stereotyping in misrepresenting a group or culture is the way stereotyping can reinforce negative, positive, and false positive stereotypes. Fleming (2006) explains that even if a stereotype is positive “…it does not encompass the beliefs or practices of all
individuals” (p. 216). For example, we might assume most Native American people are very bound to their culture and practice traditional religious ceremonies. Some Native American people do practice their traditional religious ceremonies; however, some choose not to participate. Similarly, it would be a false positive stereotype to assume that all Native American people excel in arts or are exceptionally spiritual. The plain fact is that people are people, all with a broad range of capacities and vulnerabilities. Therefore, it is important to realize the differences between stereotypes and truth. If stereotypes are not challenged, they are reinforced, leading to serious negative outcomes. Stereotyping can create stigmatization, biases, discrimination, and unrealistic expectations among many other inappropriate attitudes of therapists in healthcare and vice versa.

Challenging Discrimination, Prejudice, Bias, and Racism

While the definitions of discrimination, prejudice, bias, and racism vary, they are all terms of negative thoughts, attitudes, and behaviors towards an individual or group. These thoughts and attitudes must be challenged during self-exploration. The following are some strategies to challenge negative thoughts, attitudes, and behaviors about Native Americans.

- Be willing to change, and do it.
- Confront your negative beliefs, attitudes, and thoughts and implement anti-discriminatory behaviors.
- Socialize with and get to know individuals from the Native American culture on and off the reservation.
- Respectfully attend and/or participate in cultural/traditional events.
Once one has obtained cultural and self-awareness through experience, reflection, and realization, the therapist should engage in the process of gaining cultural knowledge.

**Cultural Knowledge - How does learning increase cultural competence?**

Knowledge of culture is gained through a variety of means in order to recognize and employ culturally significant occupations (Odawara, 2005). This is the stage where one will begin to learn about culture, race, ethnicity, and other differences. Saha, Beach, and Cooper (2008) identify language barriers, history, and cultural norms of populations as aspects of culture that would be helpful to learn about. By becoming aware of these cultural aspects, one can begin to learn strategies to adapt and develop culturally sensitive interventions. Numerous ways are available to gain cultural knowledge including some of the examples from the self-awareness section on page 13. Achieving cultural competency includes learning about the history of a given population. History is important because history is a major influence on culture and culture is a significant consideration when treating patients, thus; the

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Indian Health Services (IHS) is a federal health program for American Indians and Alaska Natives. IHS offers websites, IHS.GOV and INFO.IHS.GOV, with relevant and current information regarding the status of Native Americans in the United States as a whole population. The goal of IHS is to "assure that comprehensive, culturally acceptable personal and public health services are available and accessible to American Indian and Alaska Native people" (Indian Health Services, 2009). The websites are a valuable resource to use in conjunction with other agencies on and off the reservation, to gain knowledge about the tribes and to increase awareness of current concerns among the Native American population as well as identify culturally appropriate treatment strategies.
history and current situation of any population is important to consider in facilitating best treatment. Black and Wells (2007) suggest acquiring knowledge through written resources, electronic sources, community resources and activities, conferences and workshops, and experiential activities.

Cultural Skills

Cultural skills refer to the ability of a practitioner to develop knowledge about strategies, techniques, and approaches for patient-practitioner interactions. Cultural skill includes the ability to apply cultural knowledge, adapt and adjust the therapeutic process when working with or talking to a member of another culture (Black & Wells, 2007).

Black and Wells (2007) emphasize the importance of incorporating culturally appropriate treatment interventions without relying heavily on written facts or generalizations. Suarez-Balcazar and Rodakowski (2007) identify the following as ways to apply and practice cultural competency skills:

- Adapt the practice so that it is readily available to meet the needs of each client; for example, use a tribal healer.
- Create a supportive environment; for example, hang tribal pictures or symbols in the clinic.
- Be active in the cultural community; for example, to Powwows in support of the tribal practices.
- Use informative materials the client will understand; for example, pictorial information instead of written information.
- Actively promote diversity in the clinical setting; for example, post fliers regarding cultural events in the waiting room.

During the process an occupational therapist will identify what changes will be needed to accommodate to the client’s needs. For the Wind River tribes this may include adjusting verbal or nonverbal communication styles, providing access to a tribal healer, allowing use of sacred materials, and any other cultural adaptations that may need to be incorporated into treatment interventions. Other adjustments, such as including family members in important decision-making regarding the illness, may be necessary. Finally, a cultural competency plan should be created which identifies that individual’s plan for becoming competent in regards to the three continuous steps of self-awareness, cultural knowledge, and cultural skills.

Developing cultural competence is an ongoing process. It requires dedication and the desire to be a lifelong learner. Two models of cultural competency are presented on page 20 to support the relevance of cultural competence and provide alternative ideas to gain cultural competency.
Additional Models of Cultural Competency in Healthcare

There are several cultural competency models used in healthcare to provide a foundation and improve clinical practice in a cultural context. Two such models are explored in this guide.

Campinha-Bacote's (2002) model of cultural competence in health care delivery presents cultural competency as a continuous process. This model of care is used as a guide for healthcare practitioners to provide culturally appropriate healthcare treatments (Campinha-Bacote, 2002). The model consists of five major constructs: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. Cultural awareness, cultural knowledge, and cultural skill are similarly linked to the characteristics of Black and Wells, model with generally the same definitions. According to Campinha-Bacote (2002) the constructs are defined in this way:

- Cultural awareness is a detailed look at one’s self and a thorough examination of one’s own cultural and professional background.
- Cultural knowledge is the process of looking for and achieving an accurate educational basis regarding diverse cultural and ethnic groups.
- Cultural skill is the skill to gather significant cultural facts regarding the client’s current situation in addition to accurately completing a culturally based physical assessment.
- Cultural encounter is the process that promotes direct engagement of the healthcare provider in cross-cultural engagement with clients from culturally diverse backgrounds.
• Cultural desire is the volition of the health practitioner to want to engage in the process of becoming culturally competent.

Cultural encounters and cultural desire are the two components that make the model of care unique from the cultural competency model of Black and Wells. The application of these strategies illustrates what is known in the profession as therapeutic use of self.

Balcazar, Suarez-Balcazar, and Taylor-Ritzler (2009) conducted a thorough literature review of cultural competency models from their own research and developed a proposed model for cultural competency. Their model is comprised of the four most frequently used dimensions they identified from the literature. The components of the model are critical awareness, cultural knowledge, skills development, and practice/application. Critical awareness is a similar component to the previously mentioned models as it is a means to reflect on personal biases of people from other races and cultures. According to Balcazar, Suarez-Balcazar, and Taylor-Ritzler (2009) cultural knowledge is the process of gaining information pertaining to history, cultural beliefs, values and everything that makes up the culture.

Skills development refers to the ability of a healthcare professional to exercise empathy, effective communication, and apply culturally sensitive practices when working with individuals from other cultures. Practice/application is the process of implementing all of the components of the model. Although the three models in this guide have similar components, each has unique perspectives that expand on the three foundational components of cultural awareness, knowledge, and skill. The three foundational components combine into skilled characteristics of occupational therapy known as therapeutic use of self.
Therapeutic Use of Self

For occupational therapists, cultural competency is a major component of practicing therapeutic use of self. Therapeutic use of self is the most effective skill an occupational therapist can have when working with any client. Therapeutic use of self is a skillful way for an occupational therapist to develop client-centered interventions and develop a collaborative relationship with clients by utilizing their own strengths and weaknesses to promote effective treatments. The skill of therapeutic use of self gives occupational therapists the ability to work with clients in varying contexts. This is especially important when working with clients who do not share beliefs, values, or attitudes regarding healthcare. Therapeutic use of self incorporates the characteristics of Black and Wells’ (2007) cultural competency model as it requires therapists to be aware of their own selves, the clients, and apply learned skills to treatment. In every aspect of treatment one must develop strategies to evaluate an individual’s abilities and potential outcomes. The following section explores how occupational therapists can measure their progress regarding cultural competency.

Evaluating Cultural Competency

It is important to self-evaluate when participating in the process of becoming culturally competent. Self-evaluation can consist of documenting thoughts and perceptions prior to learning about a culture as well as during the process of acquiring cultural knowledge. This can also be accomplished through assessments specifically developed to measure cultural competency. A brief overview of two of these assessments will be provided here.

The Cultural Competence Assessment Instrument—University of Illinois at Chicago (CCAI-UIC) was developed by Suarez-Balcazar et. al (as
cited in Balcazar, Suarez-Balcazar, & Taylor-Ritzler, 2009). The CCAI-UIC is a 24-item, four-point Likert scale, self-report designed to assess the awareness, knowledge, skills, and organizational support (Balcazar-Suarez, & Taylor-Ritzler, 2009). This scale is used to evaluate progress of cultural competency for occupational therapists.

Stanhope, Solomon, Pernell-Arnold, Sands, and Bourjolly (2005) describe another cultural competency assessment called The Cross Cultural Adaptability Scale (CCAS) created by Kelly and Meyers. The CCAS uses a six point-Likert scale and four subscales that consist of emotional resilience, flexibility and openness, perceptual acuity, and personal autonomy. The focus of the scale is on intercultural effectiveness, empathy, perception and accepting of difference, being non-judgmental, and the ability to form significant interaction outcomes (Stanhope, Solomon, Pernell-Arnold, Sands, & Bourjolly, 2005).

One foreseeable limitation in self-report assessments is the reliability of the outcomes (Stanhope, Solomon, Pernell-Arnold, Sands, & Bourjolly, 2005). In any self-report, whether intentionally or unintentionally, the results may be an inaccurate report of cultural competency. Stanhope, Solomon, Pernell-Arnold, Sands, and Bourjolly (2005) found that respondents may either over-or underestimate competency.

Links to self-assessment of cultural competence can be found on the following page.
Cultural Competence Self-Assessment Links:

- http://www.med.umich.edu/multicultural/ccp/assessment.html#assessment
- http://www.xculture.org/training/overview/cultural/assessment.html
- www.xculture.org/training/overview/cultural/programs.html
The population of the Wind River Reservation, centrally located in Wyoming, is approximately 7,882 people (U.S. Census Bureau, 2000-2008). Both the Northern Arapaho and Eastern Shoshone people live on the reservation. In terms of tribal concentration, most of the Eastern Shoshone are on the western side of the reservation, while the Northern Arapahoe are primarily in the east.

Due to the complex nature of the Native American culture, healthcare workers may feel increased challenges in providing care (Office of Minority Health, 2009). Alcoholism, obesity, and diabetes are chronic illnesses commonly diagnosed within the American Indian population (Office of Minority Health, 2009). Consequently, Occupational Therapists (OTs) should become culturally competent in understanding the culture of the members of the Wind River Reservation to provide quality healthcare to this population.

The most current information resources are somewhat limited. However, there are some information resources such as Indian newspapers and media, tribal websites, Indian Health Services, and the
Centers for Disease Control for current information about diagnosis rates, cultural trends, and specific tribal data.

Currently, the Wind River Tribes are engaged in several positive ventures, which are demonstrations of how the two tribes have built and continue to build sovereignty and community. One of the most recent endeavors are new casinos located on the reservation. These new ventures have not only increased revenue for the tribes, but also for the state of Wyoming (Indian Country News, 2010). The casinos include the Wind River Casino, the 789 Casino and Smoke Shop, the Little Wind Casino in Ethete, and the Shoshone Rose Casino located between Lander and Fort Washakie. The casinos provide Las Vegas style gambling as well as venues for professional entertainers. The casinos create jobs for the tribal members and offer the potential for growth as a tribal business (McNeel, 2008).

Another forward-reaching project on the reservation has been the creation and implementation of the Wind River radio station. The radio station plays traditional Native American music. In 2009 the Northern Arapaho tribe, by way of the Northern Arapaho Tribal Industries (NATI) organization, began a radio program discussing current news and events on and surrounding the Wind River Indian Reservation (Indian Country News, 2010). According to NATI, the radio programs have proved a success for the Wind River Tribes and have provided encouragement for future business or technological endeavors.

Additionally, the NATI organization is a “professional services firm” that offers a vast array of services to both federal agencies and additional consumers (Northern Arapaho Tribal Industries, 2008). The NATI website (2008) describes their services as: “information technology
and telecommunications solutions; program planning and evaluation, policy analysis, training and technical assistance, and business and economic development.” Currently, NATI is a diverse array of internet collaborations, providing such services as creating websites, web mastering, and other information technology consulting.

In an attempt to educate more tribal members of their heritage, the Northern Arapaho and Eastern Shoshone tribes opened a tribal college on the reservation. The Tribal College teaches various subjects including the Arapaho language and the Shoshone language (Wyoming’s Wind River Country.com, 2008).

High school athletics, especially basketball, is a source of tremendous community pride on the Wind River Reservation with increasing attendance every year (Joyce, 2010). Participation in basketball includes approximately 60 Wyoming Indian students each year, many with an increased opportunity to receive scholarships and continue the sport in college (Joyce, 2010). An event which holds great pride specifically for the Northern Arapaho tribe is the annual Sand Creek Massacre Spiritual Healing Run/Walk in Denver, Colorado; this is a commemoration of the 1864 massacre in which members of the Cheyenne and Arapaho tribes were killed by the Colorado militia (Berry, 2008). The members also have an active cattle ranch in Thermopolis, Wyoming,
Another encouraging project is the linguistic program created by the Eastern Shoshone tribe and the University of Wyoming. The program recently received a grant to fund a database that will include “digital recordings of words, sample phrases and sentences, transcriptions of the digital recordings and English translations” of the Eastern Shoshone language. In addition, linguistic anthropologists and a group of Eastern Shoshone elders will also utilize the digital recordings (Indian Country News, 2010).

In summary, such programs instill pride and encourage unity among the tribes of the Wind River Reservation, but only represent a small sample of the many positive and energetic ways members of both tribal nations are overcoming a long history of cultural oppression and forced dependency.
The Northern Arapaho tribe is considered a Plains Indians tribe in the cultural context, but is distinct from other Plains Indians in their social and historical context. They speak a dialect of the Algonquian language that further separates them from the traditional "Plains Indian" tribes (Wyoming's Wind River Country.com, 2008). The Algonquians, whose territory ranged along the east coast of the US into Canada, are the distant forbearers of the Arapaho tribe. During the 17th century, the Algonquians lived in wigwams or tents made of animal hide, and used canoes to travel the waterways surrounding them. Although the Algonquian people were woodlands people, they share traditions, belong to the same linguistic family, and recognize the same higher power, "Man Above," as the Arapaho (Cole Trenholm, 1986, p. 3). The exact way in which the Arapaho separated from the Algonquian tribe is unknown (Cole Trenholm, 1986).

Upon moving westward in the 18th century, the Arapaho occupied a territory ranging from the Cheyenne River in the north to eastern Colorado and from the Black Hills in the east to the Rocky Mountains in the west. The Arapaho's traditional buffalo hunts would sometimes extend to Nebraska and Kansas. The Arapaho originally had a large territory that made it easy for them to move freely with the use of horses.

The Arapaho people were historically traditional enemies with the Shoshone, Crows, and Utes (Cole Trenholm, 1986). The Northern Arapaho people were originally asked by the U.S. government to join the Southern Arapaho on a reservation in Oklahoma. The Northern Arapaho were not pleased with this arrangement since a tribal leader by the name of Black Coal had gone to inspect the reservation in Oklahoma and found
it filled with disease. Black Coal was determined to find a way for his people to stay in their native land of Wyoming. A plan was devised to stay by having tribal warriors sign on with the U.S. Army to be scouts. Once they proved their skills as scouts and regarded as loyal allies to the Army, respect from the U.S. government ensued (Fowler, 2006). With the Army's help in 1877, Black Coal was able to travel to Washington, DC, and succeeded in convincing President Hayes to allow the Arapaho people to stay in Wyoming. In the spring of 1878, Black Coal and the Northern Arapaho people joined the Eastern Shoshone tribe on the Wind River Reservation in Wyoming (Fowler, 2006).

The Northern Arapaho tribe's global approach to religion at this time consists of a combination of Christianity and traditional practices such as the Sundance Festival and sweat lodges (Cole Trenholm, 1986). The Northern Arapaho also participate in Powwows both for the public and those strictly for religious purposes. The tribe has acculturated or accommodated in many ways to Western traditions and medical practices.

For example, traditional medical practices and pharmaceutical practices within the Arapaho tribe include using a medicine man or healer to attend to a sick person. Acculturated practices from Western culture include uses such as hospitals, clinics, medicine, and others. The Northern Arapaho tend to use a combination of these practices when dealing with healthcare concerns. It is important for occupational therapists to understand that some patients may want to use a tribal healer in addition to the therapy the occupational therapists will provide. Working in a profession that requires holistic practice, OTs should utilize all the resources available that can provide holistic treatment. So the OT should consider asking patients their feelings on using tribal healers. The
OTA may want to contact IHS or ask patients if they know of a healer they would like to use.
The history of the Shoshone tells the story of who they have become (Stamm, 1999). There are three main Shoshone groups or bands known as the Eastern Shoshone, Western Shoshone, and Northern Shoshone (Wyoming's Wind River Country, 2008). The Shoshone came to the Great Plains area because of a drought in A.D. 1350 and then moved into what is now Wyoming during the 1600s (Stamm, 1999). The Eastern Shoshone culture is a combination of many other bands of Shoshone Indians and Plains Indians Tribes. The Eastern Shoshone's historical cultural traditions include the "Sundance," buffalo hunting, and other religious and spirituality aspects (Stamm, 1999).
The Eastern Shoshone band was a roaming tribe and eventually found a home in a place called “Warm Valley,” currently known as the Wind River Valley. They traveled to the valley in search of food and to escape severe winters and hostile tribes (Stamm, 1999). The Eastern Shoshone tribe is small in number but is of great significance in the history of the Western US. Books have been written about the history of their battles with other tribes and the struggles they faced as the U.S. government tried to gain control of their land; however, little is written about their current practices and beliefs. According to the Eastern Shoshone Tribe, (2009) many members of the tribe believe that it is their faith and strong traditional beliefs that sustain their existence.

Today many Eastern Shoshone tribal members practice some form of religion whether Christian, traditional, or a combination of beliefs that may include The “Sun Dance” was likely inherited from the plains tribes’ cosmology (Eastern Shoshone, n.d.). Please refer to the traditional healing section on page 52 to learn more about cosmology and the Sun Dance.

In 1840 a new Shoshone leader named Washakie became chief who was determined to preserve the Eastern Shoshone culture and ensure that his people had a home when the US government began creating treaties (Wyoming’s Wind River Country.com, 2008).

In 1868, the Fort Bridger Treaty was established. It decreed 2,774,400 acres of land as a reservation for the Eastern Shoshone (Stamm, 1999). Today the reservation is known as the Wind River Reservation and is home to the Eastern Shoshone and Northern Arapaho tribes (Eastern Shoshone, 2009).
The Eastern Shoshone culture is comprised of a combination of traditional Shoshone practices as well as influences from other cultures. For example, the Shoshone language is derived from the Central Numic language, a branch of the Uto-Aztecan Language affiliation (Eastern Shoshone, n.d.). The first half of the twentieth century showed cultural and demographic stabilization and innovation in religious institutions. Since 1945, there has been population growth and a general adaptation to mainstream White culture (Eastern Shoshone, n.d.). The Eastern Shoshone have also had to adapt to a growing Arapaho political dominance on the reservation.
Current Health Disparities Affecting Native Americans

The Office of Minority Health (2009) identifies the top five most fatal health disparities affecting Native Americans as cardiovascular disease, cancer, unintentional injuries, diabetes, and chronic liver disease, respectively. For the tribes located on the Wind River Reservation, the Wyoming Primary Care Association (2001) identifies the top five most fatal health disparities as cardiovascular disease, unintentional injuries, cancer, liver disease, and diabetes, further corroborating the importance of becoming familiar with these illnesses.

Cardiovascular Disease

Background

Cardiovascular disease is responsible for 1.4 million deaths in the US every year (Davis, Vinci, Okwuosa, Chase, & Huang, 2007). American Indians are even more likely than Caucasian Americans to be diagnosed with cardiovascular disease due to the high rate of underlying factors, such as obesity, hypertension, diabetes, and physical inactivity (Office of Minority Health, 2009). In fact, as stated by Graham, Guendelman, Leong, Hogan, and Dennison (2006), “American Indians/Alaska Natives have the highest percentage of premature deaths from heart disease and highest prevalence of heart disease and coronary heart disease” (p. 1580)

Such long-term disparities may be due to the lack of outpatient therapy received after a hospitalization or due to socioeconomic factors such as financial barriers. While there is great disparity affecting cardiovascular care, research has been conducted to evaluate effective
cardiovascular treatments for minority populations, such as educational programs and practitioner based programs that focus on improving quality of care by providing individualized treatment from doctors, nurses, and nutritionists (Davis et al., 2007).

Causes

Underlying factors and/or risk factors associated with cardiovascular disease include obesity, hypertension, smoking, diabetes, and physical inactivity (Davis et al., 2007). Graham et al. (2006) also identify overeating, inactivity, high blood pressure, smoking, obesity, type-2 diabetes, lack of exercise, and high cholesterol. The Office of Minority Health (2009) states, “American Indians/Alaska Native adults are 60% more likely to be obese than white adults, 30% more likely to have high blood pressure, and they are more likely to be current cigarette smokers than white adults.” Thus, a combination of multi-factorial underlying causes creates significant problems for Native American populations by contributing to the development of cardiovascular disease (Graham et al., 2006). The underlying factors are discussed in detail in the following section on page 42.

Cancer

Background

Cancer is the leading health disparity afflicting Native American populations. The Office of Minority Health (2009) identified American Indian/Alaska Native men as 60% more likely than Caucasian men to have liver cancer. They were also 1.6 times more likely to have stomach cancer and twice as likely to die from it (Wiggins, et al., 2008). Cancer is a disease with high mortality rates for any ethnicity or race; however, mortality rates for Native American men colorectal cancer in the
Northern Plains states, are 59% higher (than those for men of all races) and 48% higher for all ethnicities of U.S. men (Muus, et al., 2009).

In a study conducted in 2008, prostate, lung, colorectal, kidney, and urinary bladder were identified as the top five sites for male cancer in Native American regions, except for Alaska and the Southwest. In the same study, breast, colorectal, uterine, lung, and non-Hodgkin lymphoma were identified as the top five cancer sites in Native American females in the Pacific Coast and Plains states (including the Wind River Reservation) (Wiggins et al., 2008). Furthermore, American Indian women are 2.5 times more likely to have liver cancer and 40% more likely to have kidney/renal pelvis cancer as Caucasian women. These women also have a greater mortality rate due to these cancers (Office of Minority Health, 2009).

Causes

Underlying causes for the disparity in cancer rates and the associated mortality rates for the Native American populations are related to barriers in access to care or to cancer screening for the Native American population (Guadagnolo et al., 2009; Wiggins et al., 2008). Other barriers in access to care for this population include mistrust of healthcare professionals, dissatisfaction with healthcare experiences, and lack of healthcare related knowledge from the patients’ perspective. Guadagnolo et al. (2009) cites lack of cultural competency from healthcare providers also negatively contribute to the healthcare barriers faced by this population. Underlying health behaviors are also considered to put Native people at a high risk for being afflicted by cancer and are identified by Wiggins et al. (2008) as “tobacco abuse, obesity, physical inactivity, heavy alcohol consumption, dietary factors, and prevalence of
infectious agents that are believed to cause cancer” (p. 1146). Muus, et al., (2009) also identified obesity as a risk factor in their literature review, citing obesity as a negative influence on access to care and cancer screening behaviors. While this study recognizes that obesity and cancer screening behaviors have been associated with each other in other studies, Muus et al., (2009) did not find obesity to be related to colorectal cancer screenings.

Unintentional Injuries

Background

Unintentional injuries are the leading cause of death for people under 45, for all races in the US (Schlundt, Warren, & Miller, 2004). Yet, in a study by Pressley, Barlow, Kendig, and Paneth-Pollack (2007), it was recognized that unintentional injury rates for Native American children were the highest (28.0 per 100,000). The authors identify the types of unintentional injuries as motor-vehicle accidents, drowning, residential fires, suffocation, poisoning, and firearm related injuries. The authors identified that all of the above unintentional injury types, except residential fires and poisoning, were higher for Native American children as compared to those among other races in the US (Schlundt & et al., 2004).

Causes

While there are a variety of unintentional injuries, motor vehicle crashes represent the most frequent cause of unintentional injuries (Schlundt et al., 2004). Schlundt et al. (2004) identified various contributing factors to the high incidence of motor vehicle crashes: lack of motorcycle helmet usage, lack of seat belt use, drinking alcohol and driving, risky driving behavior, driver fatigue and distraction. These
underlying factors influence the rate of motor vehicle crashes, and unintentional injuries, for every race (Schlundt et al., 2004). However:

American Indians have higher mortality rates\textsuperscript{208} and injury rates in motor vehicle crashes than do non-Hispanic whites living in the same state. Similar findings have been reported for pedestrians, with death rates among American Indian pedestrians being 3 to 4 times higher than among white pedestrians in Arizona (Schlundt et al., 2004, p. 86).

The reason for this discrepancy in motor vehicle mortality rates was not directly identified in the study, but was linked to increased risky behaviors among native population and possibly low socioeconomic status and the resulting stress (Schlundt et al., 2004).

Unintentional injuries are considered preventable, regardless of poverty and associated conditions, when interventions are employed. However, for injury interventions to be successful, access to the interventions and monetary support must be in place. For instance, in an area with lower socioeconomic conditions there is likely to be fewer funds available, which correlates to having fewer programs and/or a lack of access to the programs that are in place (Pressley et al., 2007).
Diabetes

Background

Diabetes is a national health concern for all ethnic groups; however, Native Americans are at an even greater risk for developing and living with chronic diabetes. According to the National Center for Chronic Disease in 2005, diabetes was ranked number four on the leading causes of death for Native Americans and Alaskan Natives.

Cavanaugh, Taylor, Keim, Clutter, and Geraghty (2008) sought to find a cultural definition of health and diabetes by interviewing twenty Native American men. After conducting several interviews with Native American men, diabetes was culturally defined as a long-term illness with feared complications ranging from kidney failure to amputations. The results of Cavanaugh et al. (2008) study and the high death rate associated with diabetes illustrate a large need for education about diabetes prevention and treatment.

Causes

In addition to the typical causes of diabetes (e.g., genetics, obesity, diet, etc.), other culture specific causes may contribute to diabetes in American Indian populations. A study conducted by Eilat-Adar, et al. (2008) found that the adherence to dietary guidelines by Native American populations is low, as well as among the entire U.S. population with diabetes. The study revealed that intake of saturated fat and sodium was higher than recommended and the intake of dietary fiber was lower than recommended. Native American men attributed unhealthy eating habits to the high cost of healthy food and the low income rate of Native American people (Cavanaugh et al., 2008). The poor eating habits of Americans today, including Native Americans, is ultimately leading to
increased rates of diabetes. Additionally, Palacios, Butterfly, and Strickland (2005) suggest that the high rates of diabetes among American Indians are related to "...low socioeconomic status, poverty, limited education, high unemployment, and intergenerational pain (cultural heaviness) as a result of historical injustices and disenfranchisement." (p. 39)

**Chronic Liver Disease**

**Background**

Castor, et al. (2006) identified the mortality rate of chronic liver disease (CLD) for Native Americans as 25.5 per 100,000 as compared to 10.4 per 100,000 for the entire U.S. population. In addition, the Centers for Disease Control (2006) identify chronic liver disease as the fifth leading cause of death afflicting Native Americans, making this health disparity a significant concern.

Chronic liver disease has many different etiologies: chronic hepatitis C, alcohol-related liver disease, nonalcoholic fatty liver disease, chronic hepatitis B, hemochromatosis, autoimmune hepatitis, undetermined etiology, and clinically recognized cirrhosis (Bialek, et al., 2008). "In 2002, the proportion of deaths attributable to chronic liver disease was more than 4 times greater among American Indians and Alaska Natives than among the overall U.S. population." (Bialek et al., 2008, p. 849).
Causes

Due to varying etiologies, chronic liver disease has multiple underlying factors. In a study by Scott and Garland (2008), it was noted that high rates of viral hepatitis and alcohol use were correlated to unexplained liver disease. The authors state "Alcohol has long been recognized as the most important cause of cirrhosis and liver-related death in AI/AN [46] and continues to be the most common cause of CLD" (Scott & Garland, 2008, p. 4611). Non-alcoholic fatty liver disease is another common etiology that correlates to chronic liver disease. This etiology is a common consequence of obesity and type 2 diabetes (Scott & Garland, 2008).
Other chronic illnesses, underlying disparities, and health behaviors among American Indians contribute to serious health concerns among the population. For the purpose of this guide, historical oppression, socioeconomic factors, substance abuse, and obesity will be categorized as underlying health disparities. The following topics are not to be regarded as less severe than the previously mentioned major health disparities, only that they significantly contribute to the health concerns and higher mortality rates discussed above. In the following sections, these four underlying disparities will be examined further.

However, before discussing the factors influencing Native American health disparities, it is important to emphasize that most elements of cultural disparity, including aspects of powerlessness, marginalization, disenfranchisement, poor educational resources, low income, unemployment, mental health, and lack of food security are, underlain with roots in cultural oppression for Native Americans.

**Oppression**

According to Duran, Firehammer, and Gonzalez (2008), “Culture is part of the soul” and all people have experienced “some form of historical trauma that continues to cause confusion and suffering in the present” (p. 288). Examples of historical trauma could range from the personal culture (e.g., family history of domestic violence or sexual assault) to ethnic culture (e.g., genocide, slavery) or even national culture (e.g., 9/11, Oklahoma City Bombing). The point is, if historical trauma is not “effectively dealt with, each person, as well as her or his descendants, is
doomed to experience and perpetuate various forms of psychic and
spiritual suffering in the future” (Duran, Firehammer, & Gonzalez, 2008,
p. 288). One might have encouraged the authors to include the
physiological effects of stress and consequent stress-related physical
illnesses as aspects of ongoing cultural suffering. In her doctoral
dissertation, Cashin (2001) does explore how trauma and multi-
generational trauma, in fact, influence genetics, biology, neurobiology,
emotions, and capacities for healing.

Thus, the reader may want to carefully consider the extent to
which current ethnocentric practices (i.e., Western cultural paradigms)
including medicine, psychology, empirical science, and even occupational
therapy might be perpetuating oppression that ultimately influences the
disease and health status of Native Americans. Duran, Firehammer, and
Gonzalez (2008) state that, “In such a dynamic relationship between the
oppressed and the oppressor, the negative energy of oppression consumes
the lives of the human beings involved and creates a self-perpetuating
suffering” (p. 292).

Therefore, the reader is encouraged to assume a critical stance
when reviewing the literature and with especial awareness of one’s own
biases and judgments towards Native Americans, as well as that of the
researchers and scientists contributing to the body of research.

Socioeconomics

Socioeconomics plays a role in healthcare as Schlundt, Warren,
and Miller (2004) states economic inequalities between groups contribute
to the development of health disparities by influencing access to societal
resources. Socioeconomic factors significantly influence prevention,
found that health disparities that are a consequence of socioeconomic
status occur early in life and have long-term effects. Socioeconomic factors are often underlying causes that negatively influence health. American Indians/Alaskan Natives were identified by Castor et al. (2006) as twice as likely as the general population to be unemployed and living below the national poverty level. Sarche and Spicer’s (2008) study corroborate this:

More than one-quarter of the American Indian and Alaskan Native population is living in poverty, a rate that is more than double that of the general population and one that is even greater for certain tribal groups (e.g., approaching 40%) (p. 2)

Rurality is identified as another important barrier to healthcare access and cancer screening behaviors, which leads to poor health and chronic healthcare conditions; therefore, the combination of poverty and rurality can be deadly (Muus et al., 2009; Sarche & Spicer, 2008). People living in rural areas were also more likely to be without a college degree (Castor et al., 2006).

According to Palacios, Butterfly, and Strickland (2005):

AI/AN populations have the highest rates of depression, suicide, and diabetes of any ethnic minority in the US and are the most likely to lack prenatal care. Smoking and alcoholism are more prevalent among AI/AN than among Americans in general. Some of these problems are related to low socioeconomic status, poverty, limited education, high unemployment, and intergenerational pain (cultural heaviness) as a result of historical injustices and disenfranchisement. (p. 39)

Schlundt, Warren, and Miller (2004) state:
Economic inequalities between groups contribute to the development of health disparities by influencing access to societal resources, where one can afford to live, exposure to environmental hazards, and behavior. Stress associated with low socioeconomic status, living in inner city neighborhoods, and/or racism and racial discrimination may also contribute to group differences in behavior and health outcome. (p. 84)

Living at or below the national poverty level, many Native American families struggle for day-to-day subsistence. A high rate of unemployment and few opportunities for employment are partial factors. However, even for the 75% of Native Americans able to find a job, wages are significantly lower compared to those of other U.S. wage earners (Russell & Chippewa, 2004). Native American men earn an average of $28,900 and Native American women earn $22,800 versus $37,100 for all U.S. men and $27,200 for all U.S. women (Ogunwole, 2006).

Substance Abuse

Background

Substance abuse is a major health concern leading to other serious illnesses among Americans today. Tann, Yabiku, Okamoto, and Yanow (2007) suggest that the prevalence of alcoholism is directly correlated to the onset of diabetes and depression. However, common stereotypes about American Indians as “drunken Indians” must be challenged. The use of alcohol by American Indians is complex. In order to challenge stereotypes one must know the statistics of substance use among the populations and the history of substance use.

First, the mortality rates induced by alcohol are 550% higher than among other American groups (U.S. Department of Health and Human
Resources, 2009). Additionally, Native American alcohol use is among the highest rate of use by any ethnicity in America. Alcohol use is so high that Native Americans are five times more likely than Caucasians to die of alcohol related deaths (Office of Minority Health, 2009).

French (2004) stated that “alcoholism has registered as the single most serious health problem, accounting for the four leading causes of death among American Indians: accidents, cirrhosis of the liver, suicide and homicide.” Alcohol use among Native American tribes varies and this is important to note, because not all tribes nor members in a single tribe use alcohol. As a whole, Native Americans have a higher rate of alcohol use than the total alcohol use rates of the entire U.S. population (Szlemko, Wood, and Thurman, 2006). In a survey, 80% of adolescents from the Wind River Reservation considered themselves to be “drinkers” and found drinking to be an acceptable practice among peers (Cockerham, 1975).

Alcohol is not the only substance contributing to serious health concerns. Young and Joe (2009) identify Native Americans as having the highest percentage rates of illicit drug use in comparison to other ethnic groups, with usage rates higher for Native Americans of all age groups in relation to all age groups of other ethnicities. The prevalence of alcohol and substance abuse in Native Americans is among the highest rate of use by any ethnicity, and also one of the most misunderstood illnesses affecting Native Americans.
Wind River Indian Needs Determination Survey (WINDS-2) identifies that 62% of people on the reservation report they do not drink alcoholic beverages (Joint Business Council, 1999). The survey also reports, however, that 93.1% of people surveyed feel that drunk driving is common on the reservation (Joint Business Council, 1999). More than two out of three respondents, 66.2%, reported they had a substance abuse problem and reported knowing other adults, 25.5%, and other youth, 7.3%, who also had a substance abuse problem. It was also reported that 56.7% of those with substance abuse problems had sought treatment. Further, those surveyed identified that they felt drug abuse (76.5%), alcohol abuse (82.6%), school dropout (54.4%), and gang involvement (54.4%) were "big" issues (Joint Business Council, 1999).

Causes

Garrett and Carroll (2000) found that society’s perception of substance dependence among Native Americans only reinforces the stigma attached to the disease. Hissong (2002) speculates that alcohol was introduced to the Native Americans by European immigrants for various reasons, such as a means of trade or to inhibit the capabilities of
the culture. In regard to causes, Garrett and Carroll (2000) found the following:

- Historical factors may have included “exploitation, discrimination, and assimilation, and distribution of traditional cultural and familial patterns that resulted from such events.”
- Isolation results in “displacement from community and traditional roles, feeling cut off from sources of belonging and communal meaningfulness.” (p. 382)
- Generational splits as a result of the loss of tradition being passed on from elders to younger tribal members
- Socio-demographics displaying higher poverty, unemployment, and lack of or low education status.
- Inherent physiological difference causing inadequate absorption of sugars contributing to alcohol addiction.
- Coping mechanisms used to deal with feelings of inferior or powerlessness because of acculturation and identify confusion.

No matter how the use of alcohol began, the consumption of alcohol is still present today, with unfortunate consequences to the future of the culture (Garrett & Carroll, 2000). Today, traditional practices and biomedical services are used in conjunction to treat substance abuse.

**Obesity**

**Background**

Obesity is another underlying factor that can be influenced by alcohol and substance use and, in turn, influences health disparities such as cardiovascular disease and diabetes (Wiggins et al., 2008; Davis et al., 2007). Manson et al. (2004) describe obesity as a chronic life-threatening
condition that affects every racial and ethnic group of people. The United States population as a whole is becoming increasingly obese due to the excessive portions of food people consume and a concurrent decrease in physical activity (Manson, et al., 2004). Linked to decreased quality of life, decreased ability for physical function, premature deaths, and $90 billion in healthcare costs annually, obesity is attacking many facets of life. Obesity is also known to be a precursor to many chronic illnesses such as cardiovascular disease and type II diabetes (Manson et al., 2004). This increasing epidemic is taking a toll on the people afflicted by the disease, the economy, and the healthcare industry (Manson, et al., 2004). The Office of Minority Health (2009) states:

- American Indian/Alaska Native women are more likely than White women to be obese.
- Over half of American Indian/Alaska Native women are overweight.
- American Indian/Alaskan Natives are 1.6 times as likely to be obese as Non-Hispanic whites.
- American Indian or Alaska Native adults (30.4%) were as likely as Black adults (30.8%) and less likely than White adults (40.9%) and Asian adults (62.8%) to be a healthy weight.

Obesity can lead to various other illnesses including type II diabetes, hypertension, and poor body image, as well (Manson, et al., 2004). Both Jollie-Trottier, Holm, and McDonald (2008) and Manson et al. (2004) point out that the obesity epidemic needs to be addressed and the Native American population needs to be considered when addressing this health issue. Since obesity is a major influence on the occurrence of type II diabetes, the effects of obesity need to be addressed as well (Manson et al., 2004).
Causes

Similar to the underlying causes of diabetes, socioeconomic factors, rurality, and lack of access to healthcare play important roles in the cause of obesity among Native Americans. Other contributing factors to the Native American obesity epidemic include decreased activity level, genetics, and a decrease in the availability of healthy food choices. This is likely due to the minimal incomes many Native American families have to rely on for sustenance (Smith, Bartee, Dorozynski, & Carr, 2009).

Richards and Patterson (2006) suggest that genetics, such as metabolism rate, also plays a large role in obesity, namely have the consumption of unhealthy food occurs more among Native Americans.

In addition, the traditional diet for most Native Americans has changed from consisting of one rich in grains, fruits, and vegetables, to a diet that is filled with calories but lower amounts of nutrients (Compher, 2006). While physical activity is considered a necessary and healthy way to burn excess calories, many Native American people report barriers to participating in physical activity. These would include limited time, space, a lack of physical facilities, and equipment (Compher, 2006).
Stereotypes

Myths

"All Native Americans are drunks and are to blame for their alcohol use."

"Native Americans prefer to be called Native Americans."

"Native Americans get free money from the United States government."

"American Indians are an endangered race."

"All American Indians live on a reservation."

Facts

According to IHS, Native Americans have a 550% higher rate of alcoholism compared to other Americans, but not all Native Americans use alcohol. Alcoholism is a disease and is regarded as such in medical practice.

When possible use the specific tribe name. Terms such as American Indian, Native, Indian, and Aborigine are used interchangeably throughout literature.

Treaties between the federal government and the tribes were established to reimburse the tribes in exchange for giving up their land.

There are 563 federally recognized tribes in the US comprising 2.4 million people (US Census Bureau, 2000).

Only 22% of Native Americans live on reservations (Russell and Chippewa, 2004).

Information provided by: Fleming (2006); Indian Health Services (2009); Langer (2005); Russell and Chippewa (2004).
Native American Traditional Healing Practices

In general, many Native American people feel that people are a part of nature and a need for balance (or harmony) between people and the earth must be maintained (Galanti, 2004). The Great Spirit, as it is often called, is associated with the father or grandfather. In contrast, the earth is associated with mother or grandmother. Most tribal healers believe in a Great Spirit and do in fact worship him as their God. Furthermore, many healers try to experience his presence through the harmony of nature, life, and person (Cohen, 2003). Tribal healers are sometimes used in conjunction with Western medicine and many tribal members speak of or utilize the Old Ways in individual healing practice. To reap the benefits of traditional practices, Cichoke (2001) recommends that spirituality be included in any health promotion or traditional healing practices.
Sundance

The Northern Arapaho and Eastern Shoshone tribes participate in various rituals related to traditional healing. The Sundance is one of the rituals that remain in practice today. It is considered a sacred part of the retrospective cultures.

The Sundance Ritual is generally conducted during spring or summer. According to Franklin (1979) “the Sundance took place about once a year, when one man, the ‘pledger,’ announced that he had dreamed of the ceremony” (p. 100). Shamans conducted the ceremony, however, they first had to be purified by a sweat bath and fasting as well as learn the correct songs and rituals. The dancers were pierced through the skin of their chest or back, which was then tethered to a large pole in the center of the group. “The dancer pulled back on the tethers that were attached to him, when the skin broke, the dancer was finished and had fulfilled his duty. The dance lasted four days, in which the members prayed” (Franklin, 1979, p. 100).

The following is an explanation of beliefs regarding traditional healing:

- Native Americans have a belief that there is a Great Spirit and all forms of life were created by the Great Spirit using the elements of nature, thus explaining humans and nature as one.
- When balance is recognized and achieved, so is health; when it is not, there is illness.
- Elders and children are considered as sacred members of the tribe; both should be respected and considered in one’s actions.
- To live fully every person must find their purpose; tribal healers are there to assist in finding a person’s dreams and purpose.
- Nothing can be completely known and therefore the future remains a mystery.

Adapted from Cohen (2003, p. 37)
Cosmology:

Cichoke (2001) reports that generally Native Americans have a belief that there is a Great Spirit. The Great Spirit, using the elements of nature, created all forms of life, thus explaining why humans and nature are one. Many Native American people believe that the Great Spirit put every individual on this earth to serve a purpose (Cichoke, 2001).

Earth is Mother to all things and she provides everything humans need. While nature supplies the energy and force needed, energy must be returned for creating a balance in life (Cohen, 2003; Cichoke, 2001). When balance is achieved, so is health; when it is not, there is illness (Cohen, 2003).

Sweat Lodges

The Sweat Lodge Ceremony is the most geographically dispersed healing ceremony, with tribal use ranging from the Lakota to the Apache. Sweat lodges are used in conjunction with herbs to detoxify and cleanse the body. The sweat lodge can be made of many things but its basic structure is comprised of an outer wall that prohibits any light and a place in the middle to place hot rocks that have been warmed in a fire. The medicine man or shaman then pours water over the rocks to create steam and promote sweating. Sweat lodges are said to have at least nine health promoting functions:

1. The sweat lodge offers an opportunity to pray and ask forgiveness from the Creator.
2. Heat increases the body's enzymatic activity which helps fight infection and disease.
3. Sweating helps to detoxify the body by releasing internal toxins.
4. Increased body temperatures stimulate endocrine function.
5. Heat stimulates blood flow by dilating the blood vessels.

6. Moist air in the sweat lodge can help improve lung function by dilating clogged respiratory passages.

7. Steam helps to release negative ions that counteract the positive ions associated with stress and allergies.

8. Metabolic function is improved.

9. The sweat lodge provides a cleansing and regenerative experience similar to a rebirth (Cichoke, 2001).

Herbal Use

Herbs are used in a variety of ways, including topical agents and ingested agents. Herbs contain healing properties, and when combined in specific ways to formulate teas, salves, or tinctures, healing can be achieved. However, a belief in the Great Spirit is also necessary when using herbal healing power because healing can only occur with the help of the Great Spirit (Cichoke, 2001).
## Western Medical Practices Versus Traditional Native American Practices

<table>
<thead>
<tr>
<th>Contemporary Practices</th>
<th>Traditional Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Focus on the causes of the disease and curing the disease</td>
<td>- Focus on wellbeing and healing the person</td>
</tr>
<tr>
<td>- Diseases are of organic nature and with treatment should have quantifiable results</td>
<td>- Diseases are complex and outcomes may not be quantifiable</td>
</tr>
<tr>
<td>- Seek to eliminate the disease</td>
<td>- Seek to learn from the disease</td>
</tr>
<tr>
<td>- Investigate disease with intent to eliminate it</td>
<td>- Focus on all the contexts of what caused the disease</td>
</tr>
<tr>
<td>- Based on scientific theory</td>
<td>- Perception that healing is based on spiritual aspects</td>
</tr>
<tr>
<td>- Physician is an authority</td>
<td>- Traditional Healer is a health consultant and advisor</td>
</tr>
<tr>
<td>- Promote confidence in medication and technology</td>
<td>- Empowers patients</td>
</tr>
<tr>
<td>- Focus on family history</td>
<td>- Environmental health history</td>
</tr>
<tr>
<td>- Treatment focuses on a quick recovery or maintenance of the disease</td>
<td>- Treatment is intended to have a rapid cure or management of disease</td>
</tr>
</tbody>
</table>

Adapted from Cohen (2003, p. 307)
According to Palacious, Butterfly, and Strickland (2005), when working with a Native American patient, it is essential that an appropriate greeting be conducted. Therapists should identify themselves by name and position, and then greet the patient. Generally, Native American people like to be called by their first name, but it is always good to ask the patient how they would like to be addressed. When considering how to address a Native American individual it is also important to determine what term they use to describe their ethnicity. Not all Native American people like to be called Native American, but prefer to be identified by tribal affiliation. Thus, it is important to ask questions to become familiar with the patient. For example, a patient who is Northern Arapaho may want to be identified as a Northern Arapaho member rather than a Native American or American Indian (Palacious, Butterfly, & Strickland, 2005). Clinicians should also be aware of the tone of their voice so they do not offend the client. Appropriate tone of voice includes being calm, clear, and giving direct instructions or questions (Palacious, Butterfly, & Strickland, 2005).

Metaphors or stories that use cultural terms can often be effective in enhancing understanding of instructions since they provide concepts to which the individual can relate. For example, presenting diabetes as a battle the person can wage against the disease may greatly increase understanding. When presenting information to a Native American patient, do not regard long pauses or silence as a sign of not listening; rather they are often a sign of careful consideration of the information or question presented. Allow sufficient time for the individual to formulate an answer or pose a question (Galanti, 2004).
Direct eye contact with some Native American individuals may need to be avoided due to varying beliefs that are sometimes held by the individual or tribe. For example, for some, direct eye contact may be a sign of disrespect. The therapist should pay close attention to the patient’s nonverbal communication and use those nonverbal communications as a guide for the patient to therapist interactions. Remember to ask questions about pain and discomfort because some individuals may demonstrate stoicism in the face of pain or discomfort (Galanti, 2004).

**Therapists Working with Native Americans**

<table>
<thead>
<tr>
<th>Should NOT:</th>
<th>Should:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Stereotype</td>
<td>• Be open to the patient’s values</td>
</tr>
<tr>
<td>• Judge pain level by nonverbal cues</td>
<td>• Realize that not all patients understand or know the cause of their illness</td>
</tr>
<tr>
<td>• Assume limited eye contact is negative</td>
<td>• Ask patients what they feel caused their illness</td>
</tr>
<tr>
<td>• Expect patients to make decisions without family members</td>
<td>• Explain preventative health care and the importance of finishing a prescription even after the symptoms are gone</td>
</tr>
<tr>
<td></td>
<td>• Ask the patient if there are family members who should be included in treatments</td>
</tr>
<tr>
<td></td>
<td>• Respect a patient’s religious beliefs and include when or where appropriate</td>
</tr>
</tbody>
</table>

Adapted from Galanti (p. 219, 2004)
Native American patients will also have varying comfort levels with modesty regarding the body, ADL's, and personal space. Again, address the situation by paying close attention to nonverbal cues and by asking patients about their comfort level. Always consider each Native American patient to be an individual and do not assume that each member of the same tribe will have the same beliefs (Galanti, 2004).

Remember, the guide is simply a compilation of general suggestions for working with Native American patients. One must learn more about communicating through actual experiences of working with individuals, families, and groups.
Occupational Therapy Practice and Application

Occupational therapists working with Native American Indians with cancer, cardiovascular disease, unintentional injuries, diabetes, and chronic liver disease as well as other health conditions and associated functional problems must understand and consider how appropriate treatment can contribute to reducing health disparities, or even prevent health conditions. Occupational therapists will have Native American patients who are in need of education and guidance regarding their illnesses and with the proper tools occupational therapists will be able to provide culturally competent treatment for this population (Cavanaugh, et al., 2008).

Some examples of Native American driven public health approaches, upon which future practices can be modeled, are provided below.

Wellbriety

Coyhis and Simonelli (2008) address culture, recovery, and healing as going hand in hand for Native American people. Currently, there are movements aimed at healing the mind and body by incorporating traditional cultural perspectives along with Western medicine. One specific movement incorporating traditional practice is called the Wellbriety Movement. Wellbriety refers to being both sober and well. According to Coyhis and Simonelli (2008, p. 1930), “The Wellbriety Movement offers an ensemble of interconnected teachings that most tribal people worldwide recognize because their own local traditions are also rooted in holistic ways of life (White Bison, 2002), (Coyhis &
Simonelli, August 2006)." Coyis and Simonelli (2008) further discuss the teachings of the Wellbriety model through the deepest roots known as the four laws of change.

**The Four Laws of Change**

- **Change is from within:**
  - An internal desire for change.
  - Conscious effort to change.
  - Examination of one's roles in life.
  - All permanent changes are ignited from within.
- **In order for development to occur it must be preceded by a vision.**
  - "...an individual, family, or community must actively discover and share the thoughts, feelings, and images that can take them forward into a healthy future" (p. 1930).
  - No vision results in no change.
  - The vision must identify what a healthy life would look like from an individual, family and community perspective.
  - Visions ensure that the results of change will not be by accident.
  - Once the vision has been seen, an action plan will be provided by the spirit world.
- **A great learning must take place.**
  - All those around the individual must be involved in the change to make it last.
  - All members of a community—"baby, youth, adult, and elder"—must participate in simultaneous learning experiences to recover from the effects of traumatic situations (p. 1931)
  - Contemporary education must be present with spiritual healing.
- **You must create a healing forest model.**
  - Community health affects individual health and likewise.
  - "It means we must actively heal the community and its institutions at the same time an individual works on his or her own healing from alcohol and drugs or other unwell behaviors" (p. 1931).

(Coyhis and Simonelli, p. 1930-, 2008)
Medicine Wheel/Wellness Circle

The Medicine Wheel is derived from Native American culture and it may be used as a treatment method by occupational therapists working with Native American populations. The concept of the medicine wheel in treatment is a symbolic representation of the Native American culture through healing. Montour (2000) describes the medicine wheel as a circle containing lines that form a cross; the center of the cross is symbolic of “the Creator or self.” (p. 80) The circle represents the continuous cycle of life. The cross divides the circle into four parts, and these parts represent the “four primary forces or four great forces” and the four lines represent the “cardinal directions or four winds”. The basic arrangement of the wheel is always in sets of four (Montour, 2000).

For example, the four parts may represent areas in a person’s life. When disease or illness is present, the circle is damaged or one of the parts is disproportionate, which indicates the circle (person) is unbalanced. The medicine wheel can be used in a variety of ways in occupational therapy. The wheel can be used to explain illness, to show a person what illness does to their “circle,” and demonstrate how the
balance of one's life can be restored through treatment. The medicine wheel can illustrate client-centered care through incorporating the patient's beliefs with therapeutic practice. The medicine wheel can also be individualized and explained based on the person's occupational performance issues.

The wheel represents a gestalt so there is no one way of using the wheel. The wheel, for example, may be used to measure a person's progress through patient report. The medicine wheel is not for every patient but in some instances may serve as a culturally sensitive way to treat a patient in the Native American population. For example, it may be utilized as an analogy for self-care, community participation, or productivity (Montour, 2000).
CULTURALLY SENSITIVE INTERVIEW FORMAT

The following interview is designed to be utilized as a basic guide for patient evaluation. The tool is designed to promote cultural competency and to provide a culturally sensitive format in which to evaluate the patient. The interview format has been adapted from The Provider’s Guide to Quality and Culture (The Management Sciences for Health, 2010).

Patient information and perceptions of illness:

What do you call your illness/injury or problem?


What do you think caused your illness/injury? Why was it caused?


What does this illness/injury do to you? How long do you think it will last?


Do you have any fears about your illness/injury? What are they?


What treatments will you use? What will the treatments do?


Culture, Values, Communication:

Which tribe are you enrolled in?

What does your culture think about illness, birth, and death?

What does your culture think of mental illness?

How does your culture feel about expressing emotions?

How can I respect your privacy about your body?
Do you prefer your occupational therapist to be a man or woman, older or younger than you?

__________________________________________________________________________

How do you feel about working with an occupational therapist that is from a different cultural background than you?
__________________________________________________________________________

Would you like to seek care from a tribal healer in conjunction with therapy?
__________________________________________________________________________

Who are the healers in your community? Do you have a particular tribal healer you would like to work with?
__________________________________________________________________________

Are you comfortable with the eye contact we are making?
__________________________________________________________________________

Would you like any family members to be included in therapy with you? Who?
__________________________________________________________________________
Are there any spiritual practices, meaningful objects, or symbolic items you would like to be incorporated into therapy?

________________________________________

________________________________________

________________________________________

Do you understand why therapy is beneficial to you?

________________________________________

________________________________________

________________________________________

What foods do you eat?

________________________________________

________________________________________

________________________________________

How do you feel about your body size and weight?

________________________________________

________________________________________

________________________________________

Do you have a special diet? What things do you avoid eating or drinking?

________________________________________

________________________________________

________________________________________

Do you change your diet for any spiritual ceremonies?

________________________________________

________________________________________

________________________________________
Conclusion

Cultural competency is essential to an occupational therapy practitioner's ability to provide the best possible treatment to members of other ethnic groups. Occupational therapists need to be aware of other cultures and the history of those cultures to ensure that they are providing treatment that is reflective of the occupational therapy process and the culture's traditional practices.

Native American culture is comprised of many uniquely dynamic groups as shown throughout the guide. Native groups of peoples deserve to be understood and treated in a way that compliments their traditional ways of life. Taking into consideration the illnesses that often affect the tribal populations, an occupational therapist can design culturally and individually appropriate treatment sessions.

By using this guide, a base line understanding of Native Americans' specifically, the Northern Arapaho and Eastern Shoshone peoples' traditional healing practices, common illnesses, and culturally competent treatment can be achieved. For those desiring deeper information on culturally competent treatment, the authors suggest consulting Black and Wells (2007).
Tribal Resources

Arapaho
Programs Located at:
533 Ethete Rd.
Ethete, Wy 82520
(307) 332-6120
(307) 332-5006
(307) 856-3461

Arapaho Business Council
(307) 332-7543 FAX
arapahotribe@hotmail.com

Secretaries
(307) 332-7543 FAX
northernarapaho@msn.com
arapahotribe@hotmail.com

Human Resources
(307) 332-7543 FAX
bkline@northernarapaho.com

Enrollment
(307) 332-7543 FAX

Nutrition and Transportation
Ethete Senior Center
(307) 332-7152
(307) 332-7543 FAX

Black Coal Senior Center
(307) 857-2570
(307) 332-7543 FAX

Immersion
(307) 335-8729
(307) 332-7543 FAX

Arapaho Language and Culture Commission
(307) 330--5990 / (307) 858-3198

Wind River Tribal College
(307) 335-8243
866-701-8385 Toll Free
(307) 335-8148 FAX

With Eagles Wings
(307) 857-5940 / (307) 857-5928
(307) 857-5932 FAX
Business Development
(307) 332-6120 / (307) 856-3461
(307) 332-7543 FAX

Tribal Health
(307) 332-6836
(307) 335-7274 FAX
araphealth@wyoming.com

Diabetes Program
(307) 332-8035
(307) 332-0363 FAX
ahall@onewest.net

Community Health Representatives
Ethete Area
(307) 332-6569
(307) 332-7274 FAX
Arapahoe Area
(307) 856-8141
(307) 856-4477 FAX

White Buffalo Recovery Center
Omnibus (Youth Program)
(307) 857-1662 / (307) 857-1610
ARE (Adult Program)
(307) 856-0470

800-243-9290 Toll Free
(307) 857-1610 FAX

Work Force Investment Act
(307) 332-6320
(307) 332-9207 FAX
888-340-8178 Toll Free
cburson@wyoming.com

Ethete Child Care
(307) 335-9484

WIC
Arapahoe Area M, T, W, Th, F
(307) 857-2722
(877) 962-8942 Toll Free
(307) 856-9314 FAX

Ethete Area Tuesday Only
(307) 332-332-5941
(307) 856-5972 FAX
(877) 962-8942 Toll Free
wicdirector@wyoming.com

Boys and Girls Club
(307) 857-0545
(307) 857-5880 FAX
boysandgirls@onewest.net
Food Distribution  
(307) 856-9661 / (307) 856-6058  
(307) 856-6569 FAX  
narapahosdp@rmisp.com

Tribal Newsletter  
Wind River Children and Families/Welcome House  
(307) 856-5953  
wrclf@wyoming.com

Economic Development Commission  
*Great Plains Hall*  
(307) 857-3868  
(307) 857-1134 FAX  
naedc@tcinc.net

Tribal Committee  
Blue Sky Hall  
(307) 332-8548  
natc@wyoming.com

Arapahoe Ranch  
(307) 867-2342 - (307) 867-2567 (Cook House)  
(307) 867-2567 FAX  
arapahoe@tctwest.net

Arapaho Housing  
(307) 332-5318 / (307) 856-3315  
(307) 332-0230 FAX  
naha2@trib.com

Sky People Higher Education  
(307) 332-5286  
800-815-6795 Toll Free  
(307) 332-9104 FAX  
info@skypeopleed.org

Northern Arapaho Department of Social Services  
*Child Protection Services*  
(307) 857-2436  
(307) 856-9569 FAX  
*Childcare*  
(307) 857-2436  
(307) 856-9569 FAX  
*Native Employment Works*  
(307) 857-1692  
(307) 856-4108

*(Northern Arapaho Tribe, 2009)*
Shoshone

Health
Tribal Health Office
(307) 332-6805

Dialysis Center
(307) 332-9002

Enrollment Office
(307) 332-3908

Red Feather Voc-Rehab
(307) 332-0100

Recovery
(307) 332-2003

Eyeglass Program
(307) 332-7776

Sho-Rap Lodge/White Buffalo Healing Journey Center
(307) 332-2334

Education
Boys and Girls Club
(307) 332-2713
http://bgcest.com

Early Intervention
(307) 332-3516

Higher Education
(307) 332-3538

Learning Center
(307) 335-7639

Social Services
(307) 332-6591

Morning Star Care Center
(307) 332-6902

Senior Citizens Center and Elderly Assistance
(307) 332-8130

Golden Pathways
(Formerly General Assistance)
(307) 332-9627
<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian Child Welfare (ICWA)</td>
<td>(307) 332-2495</td>
</tr>
<tr>
<td>TANF / 477 Program</td>
<td>(307) 332-8052</td>
</tr>
<tr>
<td>Women, Infant, and Children (WIC)</td>
<td>(307) 332-6733</td>
</tr>
<tr>
<td>Natural Resources Culture Center</td>
<td>(307) 332-9106</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>(307) 332-3917</td>
</tr>
<tr>
<td>General Services</td>
<td>(307) 332-8144</td>
</tr>
<tr>
<td>Food Distribution</td>
<td>(307) 332-3087</td>
</tr>
<tr>
<td>Property and Supply</td>
<td>(307) 332-7837</td>
</tr>
<tr>
<td>Roads Department</td>
<td>(307) 332-4630</td>
</tr>
<tr>
<td>Fleet Manager</td>
<td>(307) 349-0124</td>
</tr>
<tr>
<td>Rocky Mountain Hall</td>
<td>(307) 332-2737</td>
</tr>
<tr>
<td>Rocky Mountain Weight Room</td>
<td>(307) 332-0342</td>
</tr>
<tr>
<td>Gaming Commission</td>
<td>(307) 332-3567</td>
</tr>
<tr>
<td>Legal Services</td>
<td>(307) 335-8249</td>
</tr>
<tr>
<td>Office of Attorney General</td>
<td>(307) 335-8249</td>
</tr>
<tr>
<td>Other Programs</td>
<td></td>
</tr>
<tr>
<td>Public Relations</td>
<td>(307) 335-3532</td>
</tr>
<tr>
<td>Homeland Security</td>
<td>(307) 332-2027</td>
</tr>
<tr>
<td>Housing Authority</td>
<td>(307) 332-5832</td>
</tr>
<tr>
<td>Security Office (Housing)</td>
<td><a href="http://www.esha-wyo.org">http://www.esha-wyo.org</a></td>
</tr>
<tr>
<td></td>
<td>(307) 332-3379</td>
</tr>
</tbody>
</table>
Workforce Investment Act
(WIA)
(307) 332-7254
References


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http://erc.msh.org


McNeel, J. (2008). *Eastern Shoshone is set to open Shoshone Rose Casino.* Retrieved from Indian Country Today website:
http://www.indiancountrytoday.com


APPENDIX B

Logic Model
Logic Model

Project: A Cultural Competency Guide

Situation: Needs: During Level I fieldwork experiences in the Wind River region, it was noted that the Eastern Shoshone and Northern Arapaho are afflicted by many diseases. Through an extensive literature review it was determined that there were no cultural competency guides available for these tribes. It was also noted that Native Americans including the Northern Arapaho and Eastern Shoshone tribes suffer from chronic illnesses and health disparities.

Cultural Assets: The Northern Arapaho and Eastern Shoshone tribes are both resistant to assimilation and resilient despite oppression. They display their resiliency through spirituality, ceremonies, rituals, bonds, and relationships.

Symptoms: Native Americans including the Northern Arapaho and Eastern Shoshone tribes have high mortality rates of cardiovascular disease, cancer, unintentional injuries, diabetes, and chronic liver disease. These health disparities have deeply rooted and varied causes.

Root Causes: A lack of power, choices, genetics (nature vs. nurture), information, informed choices, opportunities, isolation, and an insufficient infrastructure.

Stakeholders: Eastern Shoshone and Northern Arapaho tribes, IHS, Occupational Therapists in the Wind River Region, Students, UND OT Department

Priorities: It is important to develop a cultural competency product because one does not exist regarding the Northern Arapaho and Eastern Shoshone Tribes.

Assumptions
The product is needed.
Wyoming occupational therapists want to learn about the Northern Arapaho and Eastern Shoshone.
The Eastern Shoshone and Northern Arapaho tribes will be supportive of the product.

External Factors
We cannot control people’s individual choices, attitudes, and actions towards the Northern Arapaho and Eastern Shoshone.
We cannot change everyone's stereotypic beliefs and assumptions.
We cannot change the global effects of poverty, learned helplessness and/or all oppressive forces.
We cannot change policy and law today regarding these tribal nations.

Inputs
- Student’s Time
- Student’s Energy
- Advisor’s Time
- Advisor’s Energy
- Literature Review
- Research Time
- Priority
- Assessing Future Partners

Outputs
- The development of A Cultural Competency Guide for the Occupational Therapy Practitioner
- The completion of an extensive literature review
- Wyoming Occupational Therapists
- UND OT Department
- Future Student Scholars

Outcomes
- To learn about Cultural Competency
- To become familiar with the Eastern Shoshone and Northern Arapaho
- To educate occupational therapists about health disparities affecting the Native American population
- To increase knowledge, skills, and client-centeredness within treatments
- To increase culturally competent decision making towards these tribal nations
- Improve the health of Eastern Shoshone and Northern Arapaho people.

Evaluation: Please See the Following Page
APPENDIX C

Evaluation of the Cultural Competence Guide
Steps in Product Evaluation

1. Engage stakeholders

2. Focus
   - Describe program-logic model
   - Define purpose
   - Determine use/users
   - Determine key questions
   - Select indicators
   - Determine design

3. Collect data
   - Identify sources
   - Select method(s)
   - Pilot test
   - Set schedule
   - Determine sample

4. Analyze & interpret
   - Process data
   - Analyze
   - Interpret data
   - What did you learn?
   - What are the limitations?

5. Use
   - Share findings and lessons learned
   - Use in decision making
   - Determine next steps

Standards of evaluation:
- Utility
- Feasibility
- Propriety
- Accuracy
Engage Stakeholders

Who should be involved?

Eastern Shoshone and Northern Arapaho tribes, Experts in the field, IHS providers, Occupational Therapists in the Wind River Region, Students, UND OT Department, and Dr. Carla Wilhite

How might they be engaged?

Focus groups, interviews, workshops, educational programs, surveys

Focus the Evaluation

What are you going to evaluate? Describe product (logic model).

The cultural competency guide for occupational therapists working with the Northern Arapaho and Eastern Shoshone tribes.

What is the purpose of the evaluation?

The evaluation will review the various components of the product to see that the information is both correct and accurate in relation to the standards of experts in the area and the tribal nations. The evaluation will seek to identify if any components are missing or lacking.

Who will use the evaluation? How will they use it?

<table>
<thead>
<tr>
<th>Who/users</th>
<th>How will they use the information?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Student Scholars</td>
<td>Revise the product</td>
</tr>
<tr>
<td>Dr. Carla Wilhite or Student Advisor</td>
<td>Expand the product, gain funding for dissemination of the product</td>
</tr>
<tr>
<td>UND OT Department</td>
<td>Reference for library</td>
</tr>
</tbody>
</table>

What questions will the evaluation seek to answer?

In regards to experts in the tribal relations, did the product include all necessary components?

In regards to the Northern Arapaho and Eastern Shoshone, was the information in the product accurate and relevant?

Is the guide easy to use? Have your opinions, attitudes, knowledge, and skills been changed?
### What information do you need to answer the questions?

<table>
<thead>
<tr>
<th>What I wish to know</th>
<th>Indicators – How will I know it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal feelings and attitudes toward the product</td>
<td>Surveys, Focus Group, Interviews</td>
</tr>
<tr>
<td>Feedback from experts</td>
<td>Surveys, Focus Groups, Interviews</td>
</tr>
<tr>
<td>Feedback from Wyoming Occupational Therapists</td>
<td>Surveys, Focus Groups, Interviews, Pre/Post Tests</td>
</tr>
</tbody>
</table>

### When is the evaluation needed?

Upon dissemination and use of the product.

### What evaluation design will you use?

Mixed methods

### Collect the information

#### What sources of information will you use?

- **Existing information**: Literature Review
- **People**: Experts, Eastern Shoshone and Northern Arapaho, Wyoming Occupational Therapists
- **Pictorial records and observations**: Level I Fieldwork Experiences

#### What data collection method(s) will you use?

- **Survey**
- **Interview**
- **Observation**
- **Group techniques**
- **Case study**
- **Tests**
- **Photos, videos**
- **Document review**
- **Testimonials**
- **Expert panel**
- **Simulated problems or situations**
- **Journal, log, diary**
- **Unobtrusive measures**
- **Other: Focus Groups, Pre/Post Tests**
Instrumentation: What is needed to record the information?

Develop a pre-post test workshop survey, develop open-ended focus group questions, develop open-ended interview questions for expert panel

When will you collect data for each method you’ve chosen?

<table>
<thead>
<tr>
<th>Method</th>
<th>Before product</th>
<th>During product</th>
<th>Immediately after</th>
<th>Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Review</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>People</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Observations</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Will a sample be used?

No \[\square\]  
Yes [X] If yes, describe the procedure you will use.  
Snowball sampling, purposive sampling

Analyse and Interpret

How will the data be analyzed?

Data analysis methods:  
Qualitative Data: Nvivo  Quantitative Data: SPSS

Who responsible:  
Future Student Scholars, Dr. Carla Wilhite or other student Advisor, UND OT Department
Use the Information

How will the evaluation be communicated and shared?

<table>
<thead>
<tr>
<th>To whom</th>
<th>When/where/how to present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Scholarly Students</td>
<td>To be determined</td>
</tr>
<tr>
<td>UND OT Department</td>
<td>To be determined</td>
</tr>
<tr>
<td>Dr. Carla Wilhite</td>
<td>To be determined</td>
</tr>
</tbody>
</table>

Next steps?

To be determined upon completion of the evaluation.

Manage the evaluation

- Human subject’s protection
- Management chart
- Timeline
- Responsibilities
- Budget

Standards

- Utility
- Feasibility
- Propriety
- Accuracy
REFERENCES


doi:10.1097/MCG.0b013e318054492a


55


doi:10.3200/GENP.133.4.435-451


http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html


