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Developing an occupational therapy program in a rural reservation community serving the Navajo Native Americans

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BOSTON UNIVERSITY
SARGENT COLLEGE OF HEALTH AND REHABILITATION SCIENCES

Doctoral Project

**DEVELOPING AN OCCUPATIONAL THERAPY PROGRAM
IN A RURAL RESERVATION COMMUNITY SERVING
THE NAVAJO NATIVE AMERICANS**

by

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SAMORA CASIMIR**

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ABSTRACT

Background: This doctoral project describes an occupational therapy clinic created by this author within an outpatient health center located on a rural reservation serving the Navajo Native-American community residents. This was the center's first occupational therapy program. Occupational therapy services included community outreach activities and innovative approaches that were inclusive, culturally appropriate, and client-centered.

Problem: Some challenges occurred during the implementation of the occupational therapy program such as: client resistance, cultural differences, lack of public transportation to the reservation, little to no awareness of occupational therapy, and limited funds and resources.

Methodology: A thorough literature review on developing healthcare programs in rural areas was performed to collect relevant information on current methods and approaches. Moreover, programs that incorporated cultural orientation programs and awareness was taken into consideration to develop the occupational therapy program and its activities. This facilitated building a positive rapport and relationship with the Navajo community residents.

Results: Innovative approaches were developed to help reduce some of the barriers. Four key program elements were chosen to focus on developing a sustainable and culturally appropriate operating occupational therapy clinic to serve the Navajo Native Americans living on a rural reservation community. Collaboration with pertinent stakeholders, integration of some of the population's cultural values, conveying cultural respect, and including community outreach events helped the development and operation of the new occupational therapy program.

Implications: The development of the new occupational therapy clinic provided several occasions for the clinician to integrate culturally-based activities when providing services to an underserved community. It was able to set an example for future occupational therapy practitioners to create an academic course (and/or internship) to educate students about providing occupational therapy services to an indigenous population.

Keywords: Native-Americans AND Occupational therapy, Navajo tribe, healthcare services AND rural areas, community health, cultural humility/awareness, challenges, healthcare interpersonal skills, cultural competence, and rural health.

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CHAPTER ONE – Introduction

Chapter 1: Introduction

Developing an Occupational Therapy Program in a Rural Reservation Community Serving the Navajo Native Americans describes this author's doctoral project. The new occupational therapy program was created within an outpatient health center located on a rural reservation land in the southwest four corners region of the United States. This was the outpatient health center's first occupational therapy clinic. The skilled occupational therapy services were intended to be delivered in person by this occupational therapy practitioner and some of the services included innovative approaches that were culturally-appropriate, inclusive, and client-centered.

Background

Access to healthcare services is a major concern for many Indigenous communities. Being affected by limited resources, isolated geographic location, lack of suitable healthcare staffing, inadequate infrastructure, and cultural barriers present to be pertinent barriers. (White & Beagan, 2020). Several government agencies and organizations have stepped in to help and provide services to these Indigenous populations. The United States Public Health Service (USPHS) Commissioned Corps are uniformed-service well-trained and highly qualified public health professionals. Our mission is to deliver to the nation numerous public health promotion and disease prevention programs and to advance public health science. In addition to our passion of public health service, we also serve the disadvantaged and underprivileged populations (USPHS, 2022).

The Indian Health Services (IHS) agency is one of the many agencies where many PHS Officers are stationed and work to help implement and deliver their specialty of services within medical clinics, outpatient health centers and community hospitals. Many of these facilities are located on rural and isolated reservation land where the Native Americans and Alaska Natives live. The goal and mission of these government agencies are to ensure comprehensive and culturally appropriate personal and public health services to the American Indians and Alaska Native communities (IHS, n.d.). Most of the health clinics and the community hospital centers were able to provide physical, mental, social, and some spiritual services. However, some clinics were unfortunately only able to provide basic medical services without subspecialties and specific health services such as occupational therapy, speech therapy, podiatry, dermatology, and respiratory therapy services just to name a few. Prior to 2018, occupational therapy services were not available at this outpatient health center on the Navajo Native American reservation in Red Mesa, AZ. Specifically, this project examines the poor accessibility and lack of awareness of occupational therapy needs and services among the Navajo Native Americans living on the reservation.

The Problem and Contributing Factors

During the development of the occupational therapy clinic, this author experienced some hardships and barriers that made the implementation of the program difficult. There are many obstacles that hinder and delay the process of the development of a successful occupational therapy program. The outcome desired is to see if these issues can be identified and addressed in regards to finding out how and, even if, they

could be eliminated in order for the development and operation of an effective occupational therapy program. These issues were related to client awareness, recruitment, education and client participation. Therapists have reported a general lack of awareness by clients, families and service providers around the role and scope of occupational therapy (Pidgeon, 2015). This author addressed the problem of increasing awareness and accessibility to occupational therapy services among the Navajo Native-Americans within a specified area. This author used various teaching techniques and methods to educate and treat patients of their functional performance deficits and enhance their awareness of how engaging in occupational therapy could assist them. Occupational therapy is such a subspecialty, it is rare to find an occupational therapist in some parts of the area. “Access to specialist visiting teams (both medical and in specialist fields of occupational therapy) are limited in remote areas” (Pidgeon, 2015, p. 5). The core assumptions of occupational therapy are also not necessarily shared by Indigenous communities. “The separation of person from environment, the focus on the individual rather than the collective, the divisions of productivity/self-care/leisure, the desirability of autonomy and occupational balance-these are Western notions” (White & Beagan, 2020, p. 201).

This doctoral project describes the development of an occupational therapy program within an outpatient health clinic setting located on a rural reservation land serving the Navajo Native-American community. It comprises the implementation of the occupational therapy services, the various activities of the program, desired outcomes, and some of the challenges this occupational therapist endured. It then presents an

innovative approach to alleviating these problems including: (1) enhancing the reservation Navajo community's awareness of how engaging in occupational therapy can assist them; (2) educating the clients of their functional performance deficits and (3) developing and implementing culturally-relevant occupational therapy interventions for these clients.

The outcome desired of this project is to optimize the operation of the new occupational therapy program within the outpatient health clinic. The goals are to: educate the Navajo community about occupational therapy, show them the various treatment options, increase the patient caseload and the patient footprint within the clinic, and ultimately, see a reduction in patients missing their appointments. Moreover, the clients will also benefit from extensive education about occupational therapy services and its accessibility at designated clinics. This clinician will also educate the Navajo clients about incorporating their healing beliefs and traditions into their occupational therapy treatment sessions and how it can help them achieve their goals. A key strategy to accomplish this goal is by being culturally sensitive, having respect, and taking the time to develop trust and a relationship with the client and the Navajo community. "For meaningful client-centered occupational therapy practice, it is essential to strive continually for an understanding of the influences of culture on identity and behaviors" (AJOT, 2020, p. 3). For example, incorporating their beliefs and traditions into their healing process, utilizing occupational therapy treatment sessions into developing life skills and coping strategies to help minimize pain and produce function.

The Navajo Native Americans are kind people, quiet, humble, and hold an

immense pride for their culture, heritage, land, and family. The Four Corners area is a large designated area where the borders of Utah, Colorado, Arizona and New Mexico meet. Most of the Navajo people reside within the Four Corners area where the reservation spans over 27,000 miles of desert land. The area is mostly dry, rural, and isolated from civilization. The area is uninhabited but many individuals find the beauty in it. The different shaped rock and mountain formations are strangely intriguing and captivating by sight. The Navajo people have even named each mountain with great meaning and can tell a story behind its formation. The quietness is peaceful, forces one to slow down, and can be therapeutic.

Despite the reservation's rare beauty and calmness, there are some disadvantages and problems when it comes to healthcare. Since the Navajo reservation is so large, more than two-thirds of the population have to drive 30 miles or more to gain access to a grocery store or medical care. "Historically, Indian Health Service (IHS) facilities are located in geographically isolated areas on the reservation" (Adakai et al., 2018, p. 1315). Most of the medical centers and health clinics on the reservation are extremely distant from one another and are not able to provide trauma and emergency services. "People living in remote locations, particularly in less populated countries such as Australia, experience poorer health compared to people living in cities. Consequently, improving timely access to effective primary health care services to address the health disparity is a government priority" (Carey et al., 2018, p. 2).

This problem matters because access to healthcare services is a major concern for Indigenous communities such as the Navajo Native Americans. This is due to the socio-

economic disproportions, detached geographic location, lack of suitable infrastructure and staffing, and cultural barriers (White & Beagan, 2020). Moreover, due to the isolated reservation land, American Indians experience a disproportionate burden of variety of chronic diseases and patterns of mortality that are linked to behavioral risk factors. Such risk factors include heavy alcohol use, tobacco use, poor diet, physical inactivity, obesity, diabetes, high cholesterol, high blood pressure, low employment, and poor access to healthcare. “Native people in the United States continue to have high prevalence estimates of health behaviors that might contribute to excess deaths from chronic diseases, injuries, and cancer” (Cobb et al., 2014, p. 487). Additional barriers preventing some of the American Indians from having access to medical providers are lengthy travel time to an IHS facility, lack of or limited access to transportation, long wait times, limited range of services, and delay in preventive screening and early treatment for detrimental health conditions (Adakai et al., 2018).

Arizona has the third largest population of American Indians in the United States. According to Adakai et al. (2018), “Compared with other racial/ethnic groups, American Indians/Alaska Native (AI/AN) have a lower life expectancy, lower quality of life, and are disproportionately affected by many chronic conditions” (p. 1314). Some of the consequences, in addition to the above mentioned are, high rates of mortality due to chronic illnesses and diseases, disability, overall poor general health, medical mistrust, lack of awareness of mental health services, and fear of their culture being devalued and assimilated into Westernized beliefs and values. This problem falls in the domain of occupational therapy because occupational therapy practitioners are well-positioned to

include the perspectives of Native populations. We are trained to support, advance and collaborate with the client and their families. “Developing awareness of alternative views and perspectives can help to create more equitable therapeutic environments to better assess the needs of Indigenous clients” (White & Beagan, 2020, p. 207). It is imperative to determine what methods, resources, and various service programs can be effective in reducing some of these health disparities and show improvement in their overall health conditions.

Contributing factors

One of the major causes and contributing factors of the lack of occupational therapy and other healthcare services within the Navajo reservation is the remote and secluded area. Being so far removed from more urbanized communities has restricted the Native Americans growth and limited their overall access. Various government departments and agencies purposely place healthcare clinics on the reservation to provide several healthcare services to the Native American people. Specifically, Indian Health Services (IHS) is responsible for providing federal comprehensive public health services that are available, accessible, and culturally-appropriate to the American Indian and Alaska Native communities (IHS, n.d.) In a study conducted by VanLeit (2003), “Many rural New Mexicans are poor and rural communities are typically underserved by health care providers and systems” (p. 17). Usually, the more isolated, smaller, and poorer the community is, the more difficult it is to retain health care workers.

According to the U.S. Census Bureau, rural is defined as an area outside of an urbanized area with less than 50,000 people. This author noticed and learned throughout

this experience that in rural areas such as the Native American reservations, the medical clinics have a difficult time keeping healthcare providers at the designated rural clinic that needs the most help. It is hard to keep the medical providers especially if they are not from the area, have never been exposed to the reservation community, and are not culturally sensitive to the needs of the clients. Health clinics and hospital centers located on the reservation are situated so far apart from civilization, it also makes it hard to employ and retain healthcare clinicians for a long period of time. Due to this circumstance, there is a high-turnover rate and low staffing at these rural reservation clinics. “Another likely contributing factor for the high percentage of AI/AN persons reporting no personal doctor was the high turnover rate of providers, particularly in facilities in remote regions of the country” (Cobb et al., 2014, p. 487). Rural healthcare consists of hard-to-reach populations where there are too few healthcare providers to meet the needs of the residents. Communication, cultural differences, and medical mistrust are compounding factors that hinder the medical provider from “staying-put” and delivering their healthcare service.

Another cause to the problem is the lack of sustainable healthcare programs that were successfully implemented from a previous clinician. For example, at my designated outpatient health center, a smoking cessation program was implemented by a nurse practitioner and a diabetes foot-care program was initiated by a podiatrist. However, once both of these providers’ contracts were up, they resigned, and their programs ended and were never re-established. Even more dire, if a facility cannot maintain and provide basic medical care, treatment resources, and hospital services, closure will eventually occur.

Ultimately, the community residents living on the reservation suffer the most and can go years without basic medical care. Moreover, if a client attends a specific program routinely, and the program does not resume, this causes lack of trust and poor interest from the client to achieve their health goal. “Lack of information about an uneasy situation that may be reinforced by negative encounters with insensitive health care providers continues to foster mistrust, which in turn increases dissatisfaction among Native American patients” (Canales et al., 2011, p. 896).

In addition to the shortage of health professionals working in rural areas, there is also the poor education level and lack of knowledge the rural residents have about the occupational therapy profession and other pertinent health care services. Some individuals may not be aware of their healthcare benefits nor are they aware of occupational therapy services and how it can help them in their daily life skills. “People from low socio-economic groups not only tend to have poorer health outcomes when compared to people from more affluent backgrounds, but also have poorer outcomes following interventions” (Coupe et al., 2018, p. 2). Typically, individuals of the lower socio-economic class sit at the lower end of income level and educational fulfillment. Furthermore, “people in rural communities often have high rates of chronic conditions, accompanied by increased prevalence of problem health behaviors including smoking, obesity, and lack of exercise” (Daniels, et al 2007, p. 62).

A majority of the time and effort during this author’s experience working on the Navajo reservation was advocating for the occupational therapy profession and educating the clients, and even staff, about occupational therapy and the services that can be

provided. According to the AOTA (2020b) Occupational Therapy Practice Framework “Occupational Therapy is defined as the therapeutic use of everyday life occupations with persons, groups, or populations (i.e., the client) for the purpose of enhancing or enabling participation. Occupational therapy practitioners use their knowledge of the transactional relationship among the client, their engagement in valuable occupations, and the context to design occupation-based intervention plans” (p. 1).

Another major contributing factor of the problem is due to the remote location of the outpatient health center and the poverty-level. Some of the Navajo community reservation residents do not have transportation. Public transportation on the reservation remains to be nonexistent, nor are there rideshare services that are commonly used in more urbanized areas. Hitch-hiking was very common among the residents on the reservation. This was very shocking to this author as many individuals, even in the city, rely on public transportation to get to their medical appointments among other necessary engagements. Fortunately, there is free auto transportation to medical appointments provided by Medicare. The residents who qualify for this program have to make less than a certain amount per year and can only use the free transportation services to their medical appointments, to the grocery store, and/or religious services. In addition to the limited transportation, some individuals may make their appointments just a few times or perhaps only once and have poor follow-through due to not having transportation to return for their follow-up care appointments.

Lastly, a great deal of Native-Americans believe in their own traditional healing methods rather than adapting and acclimating to the use of Westernized medicine. The

Navajo Native American healing practices consists of focus on: family, growth, community resiliency, acknowledging the elders and their ancestors for guidance, and balance (Goodkind et al., 2011). During my experience living on the Navajo reservation, this author encountered many community residents who invited me to their healing ceremonies to celebrate a birth or a death of a family member. Many of the Navajo community residents also engage in healing practices that is contradictory to what is recommended by their primary medical provider. For example, some of their healing practices included fire, encasing oneself in a sweat-lodge, fasting, isolation so that they can hear clearly from their higher power and/or ancestors. “In another study of traditional health practices, 70% of urban Native primary care patients reported that they often participated in traditional health practices, including taking herbal medicine, smudging (a purification practice that involves burning a bundle of dried herbs such as sage), and participating in healing or sweat-lodge ceremonies. Their participation was predicted by strength of cultural affiliation with Native culture” (Bassett et al., 2012, p.19). Some of their healing techniques and approaches are conflicting to the Westernized medicine, especially in regards to typical rehab-medicine methods. This was very difficult for this occupational therapy practitioner. Nevertheless, nothing was forced; this clinician instead provided much education, a culmination of both practices, and respect for one another.

Solutions

Developing awareness, educating, implementing alternative cultural appropriate methods and perspectives can help create a more reasonable and unbiased therapeutic environment to better assess the needs of the Navajo community residents. As an

occupational therapy practitioner, this author is trained and well-positioned to provide support and promote collaboration with the client to establish a positive rapport. In addition, research proves, “Indigenous populations should be guided by community-based approaches, where in Indigenous communities determine priorities and outcomes that are of direct benefit to them” (White & Beagan, 2020, p. 207).

For these reasons, this author developed the occupational therapy clinic based on four program elements, (1) Cultural Competence, (2) Education (Staff and Clients), (3) Community Outreach, and (4) Development of Client-based programs. These program elements were chosen to focus on the sustainability of the occupational therapy clinic and the application of culturally relevant strategies to achieve the goal of a successful operating occupational therapy program.

Cultural Competence

In an effort to achieve the goals of developing the occupational therapy clinic, this clinician engaged in a lengthy cultural competence training prior to onboarding and seeing patients. It was required that all new staff enroll in and participate in the new employee orientation to the outpatient health center. This orientation included extensive education and cultural competency training to help the new staff understand the Navajo Native Americans. During the 2-week new employee orientation, healthcare providers learned to avoid stereotypes, use of the preferred communication style when speaking with Navajo patients (especially the Navajo elders), and to avoid medical jargon. The cultural competence training prepared the new employees to be aware of our biases, enabled us to critically-think, and to be more mindful and culturally sensitive towards the

Navajo community as a whole.

According to de Peralta et al. (2019), “In the context of a culturally competent health care system, providers must foster respect for the cultures of individuals from diverse backgrounds, as well as promote efforts to understand the needs of the population they serve” (p. 1104). Indian Health Services embraces and takes pride in maintaining a standard for their healthcare providers to deliver services in a professional and respectable manner that is compatible with clients’ cultural health beliefs and practices. Using a Navajo interpreter and/or family member that can help translate to English was a helpful tool that displayed optimal respect towards the Navajo clients.

Furthermore, in an effort to ensure this clinician was practicing cultural competency, a needs-assessment was completed through collaboration with a senior occupational therapy provider located at another reservation community hospital. This occupational therapy practitioner provided assistance, guidance, mentorship, and offered useful tools to work with the Navajo community residents. For example, the use of health literacy documents to include pictures and translation of English to the Navajo language of Dine’ was utilized to ensure the Navajo clients understood the information given to them. The occupational therapy mentor also provided direction on the development process of the occupational therapy clinic and encouraged the utilization of various and effective measures that were cultural appropriate in improving health outcomes among the Navajo clients. “Education to promote cultural awareness is expected to improve health outcomes by enhancing the providers’ knowledge, skills, and attitudes toward clients and by developing their ability to provide culturally responsive and effective

services, leading to increased satisfaction among clients (AOTA, 2020b, p. 3).

Education (to Staff and Clients)

In order to guarantee the development of the occupational therapy program within the outpatient health clinic operated well, this clinician planned to educate the Navajo community residents and the healthcare staff about occupational therapy and the services that were implemented and delivered to the Navajo clients. This was an imperative process as this occupational therapy practitioner required approval and buy-in from the key stakeholders. The key stakeholders were the chief of the rehabilitation department, the lead medical director of the outpatient health center, and the Navajo tribal leader. This occupational therapy practitioner needed their support and cooperation in order to receive more financial resources, equipment and supplies to run and manage the new occupational therapy clinic. An educational in-service/presentation was delivered to the key stakeholders and the outpatient healthcare providers to inform them about this therapists' educational background, previous work experience and the specific skills this clinician could provide to their patients. Hosting an educational presentation and in-service about the new occupational therapy program and the services provided enhanced their understanding about the occupational therapy profession.

In addition to the educational presentation, there was an expectation of an increase in patient referrals to the occupational therapy clinic and the ability to help more people. "To help clients achieve desired outcomes, occupational therapy practitioners facilitate interactions among the client, his or her environments and contexts, and the occupations in which he or she engages" (AOTA 2014, p. s11). In the event of an

increase in patient caseload and footprint, this occupational therapy clinician planned to educate the clients more so by creating a huge board outside of the clinic with information about occupational therapy and the services provided, utilizing health literacy brochures to give to the patients, and ultimately, developing a rapport with the clients to help build trust. Using several educational teaching methods did not only help build a relationship with the Navajo clients, but helped this clinician to select appropriate assessment procedures, help to receive feedback, and identify reachable learning outcomes and activities. Due to the language and cultural barrier, appropriate use of visual aids within the clients' literacy level facilitated the delivery and learning of the educational material to be most effective and triggers a behavioral change. "For meaningful client-centered occupational therapy practice, it is essential to strive continually for an understanding of the influences of culture on identity and behaviors" (AOTA, 2020a, p. 3).

Community Outreach

Another intervention this clinician utilized to connect with the Navajo community residents and clients was by engaging in multiple community outreach activities. Being engaged in community-based activities allowed this practitioner to educate the reservation residents about the new occupational therapy program at the outpatient health center. Participating in community outreach activities was actually the most favorable intervention from this author. It allowed this author a chance to connect with the Navajo community residents, enjoy the outdoor elements within their natural environment, and learn more about the Navajo culture. For example, this occupational therapy practitioner

participated in numerous community outreach activities such as: school health fairs, Navajo senior day at the community center, 5k walk-a-thons, hiking events, farmer's markets, and yard sales. "Community-based interventions aim to work in partnership with communities to address priorities" (Jernigan et al., 2018, p. S65). It is important to recognize and promote strength-based intervention approaches within the Navajo Native communities to help build trust and develop a relationship.

A health promotion and wellness program were also developed and implemented by this occupational therapy practitioner. It was called Cycle Well: Group Indoor Cycling and Healthy Living Program. Cycle Well was a community-based health and wellness program proposed to help the clients increase their physical activity, prevent obesity, make healthier food choices, improve their mood, and feel supported within a group setting. "It is, therefore, crucial to build time into projects to work closely with the community so that the intervention is culturally-centered, a community priority, and perceived by community members to hold real value and promise for improving Native health" (Jernigan et al., 2018, p. S67). The ultimate goal of Cycle Well: Group Indoor Cycling and Healthy Living Program was to promote a healthier lifestyle through cultural awareness and have the clients engage in community group physical activity.

Development of Client-Based Programs

The Health Belief model was chosen to be the foundational framework for the development of the new occupational therapy program. The Health Belief Model is a theoretical model used to "explain change and maintenance of health-related behaviors and as a guiding framework for health behavior interventions" (Champion & Skinner,

2008). The Health Belief Model can be used at the individual level and at the community level. It has evolved gradually through continued research and responses to multiple public health concerns.

Moreover, the use of the Community-Based Participatory Research (CBPR) approach has been universally adopted and utilized among various indigenous populations. CBPR ensures collaboration, communication, open-dialogue and bi-directional learning between the provider and client. Enhanced surveillance measures at the community and client-level can raise awareness about the client's needs and the overall health challenges faced by Navajo population. This author anticipated applying client-based programs will be instrumental to improving the health and mindset of the Navajo community living on the reservation. Overcoming resistance, building trust, working with community partnerships, and listening to the Navajo tribal leaders' input were some of the proposed interventions this author used to create the new occupational therapy program.

Consistent with the CBPR approach, fostering a partnership with the key stakeholders, the Navajo tribal leader and the Navajo community residents was imperative. Implementation of the new occupational therapy program to serve the Navajo clients required a strong vision, goals to be executed, and a strong foundation of theoretical constructs. In the next chapter, this author provides application of theoretical frameworks to help formulate and influence the development of the occupational therapy clinic.

CHAPTER TWO – Project Theoretical and Evidence Base

Theoretical Grounding

The Health Belief Model was used to provide a foundation and framework for my project. The Health Belief Model is a theoretical model used to explain and understand individual changes and their health behaviors. “The Health Belief Model (HBM) addresses the individual’s perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act barriers, cues to action, and self-efficacy” (Glanz & Rimer, 1997, p. 23).

A group of U.S. Public Health Service social psychologists developed the Health Belief Model in the 1950’s. They used this framework to explain the extensive disappointment of why people did not participate in programs to prevent and detect disease. “To find an answer, social psychologists examined what was encouraging or discouraging people from participating in the programs” (Glanz & Rimer, 1997). They hypothesized what influenced people’s readiness to act was their beliefs if they were susceptible, or not, to the disease and their opinions of the benefits of trying to avoid it. Fortunately, the Health Belief Model has evolved gradually through continued research and response to multiple public health concerns. It has developed and is being utilized to support interventions to help change health behavior (Champion & Skinner, 2008).

The Health Belief Model (HBM) has six concepts that influence people’s decisions about whether to take action to prevent, screen for, and control illness. They are Perceived susceptibility, Perceived severity, Perceived benefits, Perceived barriers, Cues to action and Self-efficacy (Glanz & Rimer, 1997). Perceived susceptibility is the belief

about getting a disease and Perceived severity is the belief about how serious a condition or disease is and its effects. Perceived benefits are the belief of the advised action to reduce the risk or seriousness of the condition and Perceived barriers is the belief about the psychological costs of taking action. Cues to action is the strategies used to activate readiness to change and Self-efficacy is the confidence in one's ability to take action. (Champion & Skinner, 2008). "Together, the six constructs of the HBM provide a useful framework for designing both short-term and long-term behavior change strategies" (Glanz & Rimer, 1997, p. 13).

The Health Belief Model can be used to understand the lack of awareness of occupational therapy services and needs among the Navajo Native Americans living on a rural reservation area and guide the solution of enhancing their awareness and education about engaging in occupational therapy services. The Health Belief Model was chosen because it is best suited for addressing problem behaviors that evoke health concerns (e.g., unmonitored diabetes blood sugar levels, heart disease and the high prevalence of obesity among the Navajo Native American youth). Moreover, the Health Belief model can be used at the individual client level as well as at the community level (Glanz & Rimer, 1997). This occupational therapy practitioner wanted clients to understand and take initiative in reducing their own health risks by taking action. "Recognizing that an individual's behavior is affected by a wider context, many organizations implementing public health promotion and prevention strategies employ a multilevel framework often referred to as the social ecological model that includes factors beyond the individual level" (Green et al., 2020, p. 213).

Evidence that supports the Visual Model

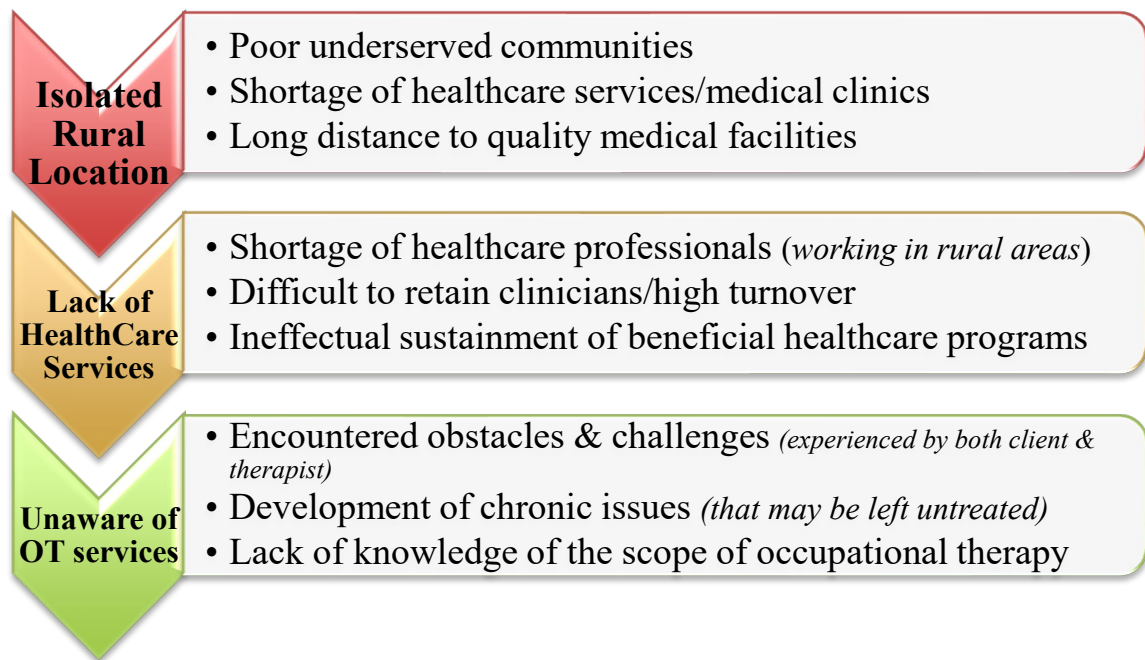
The visual model below displays the key contributing factors that cause and/or influence the problem. The American Indians have long suffered as indigenous people and their education and health has consistently rated lowest within the country. “Native people in the United States continue to have high prevalence estimates of health behaviors that might contribute to excess deaths from chronic diseases, injuries, and cancer” (Cobb et al., 2014, p. S487). The top tier of the visual model, isolated rural location, is what is believed to be the core problem and the three adjacent issues, poor underserved communities, shortage of healthcare services and the long distance to quality medical facilities are the effects of living in an isolated rural location.

Furthermore, residents who live in an isolated rural area experience great difficulty receiving medical care and gaining access to it. They also have limited to no insurance coverage and are in desperate need for essential healthcare services such as primary care, long-term care, oral health-care, and public health services. As indicated in the 2nd tier of the visual model, lack of healthcare services, there is an extreme shortage of healthcare providers making it very difficult to retain and keep healthcare workers staffed. One of the most common complaints heard from the Navajo Native American clients, has been having to repeat their complaints, or story, multiple times to different providers due to the high turnover. “Rural communities have difficulty creating, recruiting, and sustaining an adequate healthcare workforce” (Daniels, et al., 2007, p. 62).

Finally, the third tier displays the outcome of being unaware of occupational therapy services and to include the profession. The people living on the reservation are unfamiliar

and lack the basic knowledge of our services, nor do they know what and how we can serve them. For that reason, individuals living on the reservation who maybe experiencing chronic medical issues fail to seek occupational therapy services. For example, individuals suffering from carpal tunnel pain, triggering finger and hand arthritic joint pain. These are just a few examples of some of the challenges of being uninformed of occupational therapy services. The therapist could also experience challenges such as poor intervention outcomes due to the client's chronic issues left untreated.

Figure 2.1



Literature Search

A literature search was conducted in order to evaluate the factors that contribute to the lack of awareness of occupational therapy services and needs among the Navajo

tribe of Native-Americans in a rural reservation area. The literature review was directed by these five guiding questions:

- 1) Is there evidence that an isolated rural location impacts the treatment of chronic conditions?
- 2) Is there evidence that rural locations impact the recruitment of medical/healthcare programs and professionals, including occupational therapy?
- 3) Is there evidence that rural locations impact the sustainability of medical/healthcare programs and professionals, including occupational therapy?
- 4) Is there evidence of client characteristics that impact the working relationship between the Navajo Native American population and medical/healthcare professionals? (trust, awareness, education, health literacy, to know and understand about different healthcare services).
- 5) Is there evidence of healthcare professional characteristics that impact the working relationship between the Navajo Native American population and medical/healthcare professionals? (i.e. cultural awareness, cultural competence and cultural sensitivity).

To locate evidence, Google Scholar, BU Mugar Library search, and PubMed was utilized. Thirteen research articles were selected for this literature review and of these, four were systematic reviews and one meta-analysis. In addition to literature search, my experience with working on a Navajo Native American reservation and developing occupational therapy services in an outpatient health clinic located in a rural area will also be documented and shared. This author's first-hand knowledge and involvement

with this project was a great learning experience and opportunity.

Is there evidence that an isolated rural location impacts the treatment of chronic conditions?

To explore the relationship between isolated rural location and its effects on the treatment of chronic conditions, the Boston University Mugar Library search was used along with key search terms such as “health disparities”, “challenges”, “healthcare”, and “rural area”. According to a review article by Smith et al., (2008), communities of rural locations generally exhibit a larger prevalence of less healthy behaviors compared to those of urban areas. For example, these populations may be less likely to use preventive screening services, exercise regularly, and/or wear a safety belt. Smith et al. (2008) also report access to healthcare services, including detection, screening, treatment, diagnostic, and management resources, is more difficult for people living in rural areas. “Access to services is an important determinant of health outcomes for both ill-health treatment and preventive care. Treatment of injuries is often impeded by long-distances emergency services must travel to reach and convey injured people, by restricted diagnostic capacity and by delayed treatment or incomplete surgical capabilities in rural areas” (Smith et al., 2008, p. 57). Additionally, individuals living in remote rural areas have higher rates of diabetes, decreased chances of surviving cancer and other adverse health outcomes also due to poorer access to healthcare services.

Based on a systematic review by Carey et al., (2018), when primary care services were on a visiting schedule, there was a reduction in waiting time, improvement in diabetes management, and reduction in hospitalizations and lower mortality. Although,

occupational therapy services currently are not included in primary health care services, the data shows an improvement in health outcomes of those individuals living in remote areas when healthcare services were implemented on a visiting schedule basis. Perhaps the area is so remote, certain healthcare services were only available on a strict schedule. This could have possibly encouraged the client to not miss their appointment time due to its limitation and quick-to-fill up schedule. “Visiting services are an important component of the delivery of primary health care services to isolated remote and rural communities. In order to ensure residents of remote communities are receiving the best possible primary health care it is important that evaluations of these visiting services are conducted systematically and routinely” (Carey et al., 2018, p. 476). Nevertheless, in the event of structured visiting services, treatment of chronic conditions can help achieve better health outcomes and help meet community health needs.

Is there evidence that rural locations impact the recruitment of medical/healthcare programs and professionals, including occupational therapy? Is there evidence that rural locations impact the sustainability of medical/healthcare programs and professionals, including occupational therapy?

Many research articles were explored to find quality evidence on the impact of recruitment and sustainability of healthcare workers, to include occupational therapists, working in rural locations. This author decided to report on the findings of these two questions together as the research found addresses both recruitment and sustainability. BU Mugar library search, Google scholar and the National Institute of Health (NIH) library were used. Key search terms such as: “recruitment of healthcare workers” AND

“rural communities”, “recruitment of healthcare workers AND remote areas”, “rural healthcare challenges”, and “difficulties faced sustaining healthcare programs in remote areas” were applied. According to the Merriam-Webster dictionary (2022), rural is defined as countryside, geographical area that is located outside of a town or city and remote is defined as places that are out of the way or considerably secluded from civilization.

Many remote communities across the globe face such great hurdles and challenges of not receiving basic healthcare and medical needs such as clean water, a safe hospital/clinic infrastructure, essential vaccinations, medical supplies, and vital medications. This issue is one that is encountered in many parts of the world and even within the United States. The people of the rural communities are the ones that suffer ultimately due to the inability to receive basic healthcare services and needs.

In addition to the medical and healthcare barriers encountered within rural and remote areas, there is a shortage of healthcare workers that impact medical and healthcare access to the people of the community. Limited to insufficient healthcare services and healthcare providers are commonly associated with third-world/poor countries. However, even as developed as the United States is, there are many areas, particularly low-income and rural communities, that experience limited to absent quality healthcare programs, services and healthcare providers. According to rural health info, “A shortage of healthcare professionals in rural areas of the U.S. can restrict access to healthcare by limiting the supply of available services. As of September 2022, 65.6% of Primary Care Health Professional Shortage Areas (HPSAs) were located in rural areas” (Rural Health

Information Hub, n.d.).

Specifically, individuals living in rural and remote areas that are underdeveloped suffer greatly from poor access to quality healthcare services and programs. “Compared with citizens in urban areas, rural citizens are more often economically and socially disadvantaged. Conversely, sufficient health care delivery requires sophisticated technology, is expensive and depends on a qualified workforce” (Weinhold & Gurtner, 2014, p. 202). If it is difficult for a hospital and/or clinic to retain healthcare workers, then consequently, it is difficult for the patients to receive good quality care. The healthcare workers maybe overworked, experiencing increased levels of stress and pressure to manage their work duties, to include patient care. This consequently leads to the healthcare professional leaving the job.

The lack of healthcare professionals working in rural, remote areas are due to multiple reasons such as the hospital/clinic work site is too isolated (geographical location), poor working conditions, weak infrastructure, unfinished roads, underdeveloped towns, low job satisfaction, and lack of financial resources to support and sustain the program or service. According to Malema and Muthelo’s (2018) literature review, “Personnel support issues affect healthcare workers and their families such as living conditions, availability of electricity, proper sanitation, access to schools and telecommunication. The review highlights that these need to be addressed to enhance retention, together with professional support in the form of career development and creation of senior positions in rural institutions” (p. 3).

Additionally, other pertinent factors that impact recruitment and sustainability of

medical/healthcare programs and professionals working in remote and rural areas are: unavailable career growth, economic stagnation, unsafe living conditions (housing quarters for the employee are unsatisfactory), heavy workload, access restrictions, lack of government support, high rates of chronic illnesses, and sometimes even hospital closure due to declining community population and/or depletion of hospital funds. “Main work challenges pertained to overall workload, a lack of training and support regarding a serious case mix to be managed on their own, adverse working conditions, issues related to the local communities, and the impact of postings on nurses’ private life. Poor working conditions and perceived lack of recognition emerged as the main demotivating factors” (Jaeger et al., 2018, p. 1). All of these factors impact the recruitment and sustainability of healthcare services and professionals, to include occupational therapists, working in rural locations.

Access to healthcare services and programs should become a major concern for individuals living in rural remote areas. In this author’s experience, trying to survive takes precedence over chronic pain that an individual has been dealing with for many years. It doesn’t become serious until there is an acute, life-threatening issue. “Accessing culturally relevant and timely healthcare services is problematic and everyday survival may take priority over seeking services such as occupational therapy” (White & Beagan, 2020, p. 201). Not many people are aware of the occupational therapy profession and gaining access to an occupational therapist practicing in a rural area can even be more difficult to obtain. According White and Beagan (2020), “Core assumptions of occupational therapy are not necessarily shared by Indigenous people-nor by other

cultures” (p. 201). This is clearly a negative impact on the people living in rural communities and a limitation of the profession.

Is there evidence of client characteristics that impact the working relationship between the Navajo Native American population and medical/healthcare professionals? (trust, awareness, education, health literacy, to know and understand about different healthcare services)

In order to investigate the various client characteristics that influence the working relationship between the Navajo Native American population and other non-Native medical professionals, this author used the BU Mugar library and the NIH library search and applied several key search terms such as “medical mistrust AND Native American”, “health literacy AND Native Americans”, “health disparities AND Native-Americans”.

Based on the long history of generational trauma, the Native Americans have reported having medical mistrust when seeking medical care among a Westernized society. Certain cultural values and beliefs are viewed differently which has caused a major disconnect. This is due to lack of understanding of their clinical condition, the limited ability to negotiate clinical health systems and lack of knowledge of current technologies. From my experience working on the reservation, the clients would usually complain about the lack of certain medical services, long wait times, constantly repeating their story, the ever-changing of their health providers, and resources being unavailable on the reservation versus the medical facilities in bigger, more populated cities. The medical mistrust is also due to “lack of cultural awareness on the part of the physician and other health care professionals and inadequate understanding of the patients’ personal

beliefs” (Canales et al., 2011, p. 896).

Another reason for mistrust from the Native Americans among non-Native American healthcare providers because of the history of intentionally imposing Westernized values, medical systems and beliefs of care upon individuals, families, and communities. “Many American Indian and Alaska Native (AI/AN) peoples have learned to distrust the people who came to their land as colonizers and the institutions they created, as a result of oppressive actions and policies, numerous treaties that have been violated, and promises that have been broken” (Goodkind et al., 2011, p. 453). It has also been reported by several community members, if more medical providers were Native-American, they would be more receptive to the health care administered due to cultural appropriateness, cultural respect and sensitivity.

Non-Native healthcare providers are considered to be threatening or not worthy of trust. (Canales et al., 2011, p. 897). The mistrust is a result of negative doctor visits and healthcare experiences. “The doctor didn’t let me explain my story; He just gave me pain meds to help me; I do not believe in taking pills” per some of my clients’ complaints. These are some examples of what was communicated to me during my therapeutic sessions. My clients would share their personal experiences about their appointments with few doctors, nurses and other healthcare medical providers. “Although the experiences varied, the underlying current was that trust cannot be presupposed; it must be earned by health professionals over time, through demonstration of efficacious and compassionate care” (Canales et al., 2011, p. 900).

Is there evidence of healthcare professional characteristics that impact the working relationship between the Navajo Native American population and medical/healthcare professionals? (i.e., cultural awareness, cultural competence and cultural sensitivity)

To best study the healthcare professional characteristics that impact the working relationship between the Navajo Native American population and the healthcare professional, the BU Mugar library and the NIH library were used and key search terms such as “cultural competence among healthcare workers”, “historical trauma AND American Indians” were included.

As a healthcare practitioner, it is imperative to be knowledgeable, and at the most, culturally aware and sensitive when providing services to culturally-diverse patients. It is our jobs as healthcare workers to orient, learn and be educated about the various cultures and norms of the population we provide our services to. A systematic review of literature shows there is poor patient adherence when the healthcare provider is not culturally competent which also impacts patient satisfaction. Beach et al. (2005) define cultural competence as “the ability of individuals to establish effective interpersonal and working relationships that supersede cultural differences by recognizing the importance of social and cultural influences on patients, considering how these factors interact, and devising interventions that take these issues into account” (p. 357).

Beach et al. (2005) explains, “Cultural competence training shows promise as a strategy for improving the knowledge, attitudes, and skills of health professionals” and that it ultimately “improves patient adherence to therapy, health outcomes and equity of services across racial and ethnic groups is lacking” (p. 356). Despite healthcare clinicians

doing their best to be culturally aware, there are still many issues that seem to cause mistrust. For example, based on this author's experience working with the Navajo Native American reservation, many providers were not Native American and if the client did not speak English, there was clearly a language barrier. Some providers were not culturally aware nor competent of the culture of the tribe and there is an unfortunate infliction of Westernized values on the patient. This caused mistrust and produced a bad experience for the patient.

CHAPTER THREE – Overview of Current Approaches and Methods

A thorough literature review on developing healthcare programs in rural areas was performed to collect relevant information on current methods and approaches. In addition, programs that incorporated cultural orientation programs and awareness were also taken into consideration to reveal the impact these programs have on building positive rapport with the rural community residents. The following five questions served as a guide for the literature searches:

- 1) Is there evidence implementation of a cultural orientation program impacts better service provision to the clients?
- 2) Is there evidence that practicing with cultural humility and awareness impacts effective service provision?
- 3) Is there evidence that engaging in various community outreach programs will impact the relationship between the healthcare provider and the rural community residents?
- 4) Is there evidence that an established rehab department, primary care department and/or healthcare service department impacts the referrals to the occupational therapy service/clinic?
- 5) Is there evidence that practicing well sound (or appropriate) interpersonal skills impacts the service providers ability to work well with others?

The evidence gathered from these literature searches were used to support and strengthen the findings and reflective practices during this author's work experience on the American Indian reservation. Searches were attentively concentrated on key words

such as: cultural competence, cultural orientation programs, cultural humility/awareness, healthcare service provision, healthcare interpersonal skills, community outreach programs, community health, occupational therapy, Native Americans, rural health, and rural areas. Searches were repeated across several databases including PsycINFO, PubMed, CINAHL, and ProQuest. Journals related to occupational therapy, community health, and public health were also utilized to locate additional helpful articles of relevance.

The searches were expanded to include rural community residents and not only Native Americans; community outreach programs and not only healthcare programs; cultural humility and awareness and not only cultural competence. Multiple evidence-based literature was analyzed and an educational guide for occupational therapy clinicians on learning how to become more aware of their own biases, to practice cultural humility and incorporate effective teaching instructional strategies in their daily practice. With the purpose of compiling some of the articles' similarities, common themes are described and evaluated to determine what methods worked and what did not.

Theme 1: Cultural Competence

Given the complexity of culture and human behaviors, it is important to provide a brief description and definition of cultural competence along with an overview of cultural sensitivity, cultural awareness, trust-building, and communication. Culture shapes our identity, influences how we think, feel and act towards others. As healthcare professionals, it is vital to treat clients of diverse backgrounds and cultures with respect, fairness and sensitivity. It is not feasible to study every culture and traditional customs

associated with people of different races, ethnic groups, countries, and religion. “The key to developing cultural competence and cultural intelligence is focusing on the patient and displaying respect sensitivity, composure, partnership, honesty, acumen, curiosity, and tolerance, and a positive attitude towards them” (Majda et al., 2021, p. 7).

Focusing on the client and their cultural traditions and values also leads to building trust with the client. This will have a positive impact on the client and the healthcare provider. “Cultural competence has been defined as a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations” (AOTA, 2020a, p. 2).

A number of articles obtained reveal the significance of healthcare workers take an immense effort in homing in on their cultural competency and sensitivity towards residents of different cultures than their own, more specifically for this project, Native Americans. This is because healthcare workers that take a more culturally sensitive approach towards their patients draw them in, build a positive rapport and trust with their patients, ultimately providing the best care that they can. “Skillful care for culturally different patient requires cultural competencies and cultural intelligence to ensure good quality of care and cultural safety” (Majda et al., 2021, p.1).

The results from this research confirm the positive impact medical professionals can have with individuals of other cultures and backgrounds on their cultural competence and intelligence. Skillful treatment of patients who are different in terms of culture, ethnicity, and/or religion requires appropriate preparation. They indicate the need for

training in acquiring cultural competencies and developing cultural intelligence, especially among nurses to increase diversity efforts. Although this study did not indicate if the area studied was rural or not, it still stands that educating medical professionals on cultural intelligence and cultural competencies is extremely imperative when providing medical/healthcare services. The impact is ultimately positive and beneficial for both parties, the provider and the patient.

Patients' trust in the healthcare provider is a high contributing factor in racial-ethnic health disparities and is associated with medical compliance and adherence to treatment recommendations. Simonds and colleagues (2013) state, "Patients who strongly identified with an American Indian cultural identity had significantly lower institutional trust compared to those self-identifying less strongly" (p. 500). The Native Americans involved in this study were of the Cherokee nation in northeastern Oklahoma. Previous studies involving this tribe found that American Indian identity influences medical communication and is associated with lower satisfaction with medical/healthcare worker interaction. "Contemporary efforts to render healthcare more patient-centered and culturally appropriate frequently focus on enhancing providers' cultural competency, and we commend such efforts" (Simonds et al., 2013, p. 504). This research implies high clinical relevance in regards to this author's experience working on the Navajo Native American reservation. The intense focus of improving my own cultural awareness and competency to build a positive and trustworthy rapport especially with the elderly population was extremely imperative.

Ensuring medical and healthcare access to individuals who live in the most rural

and remote areas is already a complex, multi-faceted healthcare challenge. “Facilitating access to healthcare requires application of and respect for cultural differences” (Coombs et al., 2022, p. 1). Their study, “A qualitative study of rural healthcare providers’ views of social, cultural, and programmatic barriers to healthcare access”, examines the less scrutinized barriers to healthcare access, particularly in rural-specific areas, to understand its origin and the implications for resolution (Coombs et al., 2022).

In addition to this challenge, fragmented communication and lack of cultural sensitivity impairs the rural healthcare system. Culturally appropriate medical and healthcare delivery is especially vital to individuals of all minority populations and especially to those living in rural areas. Systematic and individual efforts to acquire culturally appropriate skills and obtain cultural humility is, at best, the beginning of alleviating some of the barriers to healthcare access. “Cultural competence is achieved through a plethora of trainings designed to expose providers to different cultures’ beliefs and values but induces risk of stereotyping and stigmatizing a patient’s views. Therefore, cultural humility is the preferred idea, by which providers reflect and gain open-ended appreciation for a patient’s culture” (Coombs et al., 2022, p. 11).

Theme 2: Community Outreach Programs

This author found a great amount of evidence-based research articles that focused on community outreach programs and interventions and its effect on health disparities among the community residents. This author chose studies that addressed the interaction and communication changes that made an impact on the relationship between the healthcare provider and the rural community residents. For example, Jernigan et al.,

(2018) highlight the significance of multi-level and community-level interventions, major contributors and causes of health disparities among the Native American communities.

“These types of interventions employ multiple approaches to address the various levels of influence contributing to a problem, ideally creating environments conducive to sustaining individual behavioral change. Thus, multi-level interventions are thought to hold the greatest promise of improving health” (Jernigan et al., 2018, p. S65).

What worked well in this research study were the many intervention studies implemented and the innovative methods to develop culturally-centered appropriate programs. “Interventions that promote stable and supportive parental relationships, prosocial adult role models and peer groups, self-efficacy in social relations, bonding with school and conventional society, and cultural and spiritual involvement have all been associated with abstinence from substance abuse” (Jernigan et al., 2018, p. S72).

Incorporating tribal leaders in the organizational policies and plans and utilizing community centers for wellness groups and cultural practices were all positive and meaningful methods to effectively reach the residents living in rural communities. “Interventions that recognize and promote these strength-based approaches and community assets, particularly those that are culturally centered and grounded in Indigenous theories and ways of knowing hold the greatest promise for effecting positive change within Native communities” (Jernigan et al., 2018, p. S72).

This study is fairly current and is very relevant to the experiences encountered working on the Navajo Native American reservation. Reading through the various multi-level intervention programs they used was beneficial and this author utilized some of

these approaches. For example, being inclusive, incorporating health and wellness programs, using already existing community-resources, refining others to amplify its use and value. Becoming more involved in the community outreach programs to build a positive working relationship with tribal leaders was also effective to gain their trust, honor their cultural differences, and gain their influence on the rural community residents.

The researchers of the study, *Effects of a Community Outreach Program for Maternal Health and Family Planning in Tigray, Ethiopia*, examined the effects of a community outreach program on maternal health to include, women's knowledge about pregnancy, childbirth, postpartum care, institutional childbirth, contraceptive use, and family-planning. Self-report questionnaire surveys using face-to-face interviews was the method chosen. The 2.5-year community outreach program was developed based on Rogers' diffusion of innovation theory. It consisted of mass-media use and health education for lay women in the Tigray community, along with training of health care providers (Bang et al., 2018).

Some areas, especially the sub-Saharan parts of Africa are very remote and rural communities with low resources. This article was chosen to highlight some of the similarities and benefits of integrating community outreach programs within rural areas and its impact on the residents and the healthcare providers. Bang et al. (2018) stated, "The community outreach program and health care professional training effectively improved knowledge and behaviors regarding maternal health in Ethiopian women. Mass media and interpersonal communication channels for health education maybe useful

health interventions in developing countries” (p. 223).

The similarities of this outreach program and the community outreach programs utilized on the Navajo Native American reservation communities are the affordability and accessibility of the programs to the residents. Along with the use of various mass-media communications channels such as, the Navajo radio station, the Navajo community Facebook page and other social-media outlets. Posters, flyers and highway billboards signs are placed strategically on the reservation near storefronts and/or near gas stations where there is high volume of movement to help educate the residents of any pertinent and relevant healthcare matters. The results of this study support the crucial need for effective use of various community outreach programs to empower and educate the residents of impoverished rural communities. This will in turn strengthen the communication and healthcare literacy education delivered to the client by the healthcare provider. For example, wearing facial mask properly, washing of hands and social distance during the outbreak of the COVID pandemic in 2020.

Group gardening in a Native American Community: A collaborative approach is a study intended to distinguish the influences across social-ecological levels that promote or hinder the implementation of community gardens and the use of locally grown foods on a reservation. A secondary goal was to assess the viability of implementing a gardening group program for Native American adults & the potential of collecting health outcome measures (Brown et al., 2020). “Major factors influencing using locally grown food and community gardens that emerged from nine interviews included knowledge/experience, self-efficacy, Elders, traditional ways, community values,

generational gaps, and local tribal policies” (Brown et al., 2020, p. 611).

The researchers used the Community-Based Participatory Approach (CBPR) and the Social-Ecological Model (SEM) of health behavior. They accomplished developing and implementing a practical gardening group program for the Native American adults where the tribal health staff collect program measures. Gardening has been proven to be therapeutic, improves mental health, incorporates physical activity, social skills and most of all, encourages healthy nutritional eating habits. “Building on this research, a community garden-focused study on the Navajo reservation used individual and social constructs from the social-cognitive theory paired with community input to guide a gardening intervention to improve consumption of fruits and vegetables among residents” (Brown et al., 2020, p. 612).

Group gardening is a culmination of a healthy promoting activity with connection to nutritious fruits and vegetables, integration of the community, and the environment. While working on the reservation, this idea came across my mind to start a similar program focused on healthy eating, community gardening to include some of their traditional Navajo foods and still maintain a healthy wholesome diet. This author did not get to establish this program there were so many ideas and other projects that took precedence and had already been established to begin. In addition, this author was also uncertain of the continuity, attendance, interest from the clients, and most of all lack of rain to upkeep the garden. Nonetheless, the Brown et al. (2020) research study is a great example of the effective use of a community outreach program having a positive impact on merging relationship between the client and the healthcare provider. “We

accomplished our primary objective of identifying various influences across social-ecological levels that promote or hinder the implementation of community gardens and the use of locally grown foods on the reservation. Stakeholders held positive views toward community gardens and identified gardening as a healthy activity and a way for people to work together” (Brown et al., 2020, p. 619).

This author found one study in particular that identified barriers and challenges serving underprivileged populations in a rural area. Connell et al., (2019) describe in their paper, “Barriers to healthcare seeking and provision among African American adults in the rural Mississippi Delta region: Community and provider perspectives”, the differences emerged in perceptions of interpersonal barriers between community members and healthcare providers. These difficulties were broadly categorized as structural and interpersonal with the various groups identifying structural barriers to include poverty, lack of healthcare insurance, and rurality. “Community members and the volunteer community health advisors (CHA) fears of serious medical diagnosis, stigma, medical distrust, and racism emerged as factors inhibiting health care utilization” (Connell et al., 2019, p. 636).

Some areas of the south in the United States have a high rate of poverty compared to some other regions of the U.S. In the Connell et al. (2019) study, the rural areas of Mississippi are investigated as far as healthcare professional shortages, healthcare access and utilization, and the barriers that prohibit the community residents from receiving quality healthcare. Here are a few examples: lack of public and/or private transportation, fear, medical mistrust, lack of medical insurance, poverty, lack of medical specialists, and

racism. “Medical distrust has been reported as a structural barrier to preventive health screenings as well as to healthcare seeking and access among minority groups. However, in our study community participants described their distrust towards providers based on their interpersonal experiences with those who appeared impersonal or racially biased in the treatment options and care they provided” (Connell et al., 2019, p. 642).

Although Connell et al. (2019) did not implement a specific community outreach program to their rural community residents of Mississippi, they did suggest some strong recommendations on how future researchers and healthcare providers can reach out to these residents and merge that bridge of communication and service provision. The healthcare providers and their staff need to continuously communicate with their patients to help lessen feelings of discrimination and disrespect. Emphasis should be placed on community health education in the rural areas, numerous effective approaches to understand and address negative stigmas, developing culturally sensitive messages that have a positive impact and encourage the rural community residents seen healthcare services. “Raising awareness among providers of patients’ perception in order to address them to the extent possible during patient encounters is also an important step in reducing delays in seeking health care and thus health disparities in the region” (Connell et al., 2019, p. 643).

Theme 3: Developing Interpersonal Skills

Developing interpersonal skills is an essential skill that all healthcare providers should obtain in order to learn how to work well with others. The American Occupational Therapy Association established a guide for occupational therapy practitioners to follow

and discover different strategies and resources to enhance interpersonal skills along with learning how to be culturally sensitive. “Future practitioners must learn how to provide culturally appropriate care characterized by awareness, humility, and dexterity in client interactions. This guide offers information strategies, and resources for enhancing learner knowledge, skills, and attitudes through intentional and effective curriculum design practices” (AOTA, 2020a, p. 1).

Why does this matter? Developing interpersonal skills matters because occupational therapists specialize in working with individuals of all ages and races to help them engage and fulfill meaningful occupations. Working in a rural area with individuals who more than likely have multiple health disparities, of diverse backgrounds, and from an impoverished area, can prepare the therapist to be culturally sensitive and tailor their approach differently towards the client. “Occupational therapy practitioners are trained to evaluate and treat people, groups, and populations who face barriers to participation in daily life activities. Occupational therapy practitioners and educators must keep the needs of other identities (e.g., those based on socioeconomic status [SES], gender, religion, and sexual orientation) in mind as they work collaboratively with clients, families, communities, and populations” (AOTA, 2020a, p. 1).

One of the key resources this guide provides is the Culture Emergent Model. “The Culture Emergent Model provides a valuable, holistic approach for occupational therapy practitioners to recognize and address the needs of clients. The model proposes that culture shapes occupational choices, priorities, values, behavior, and social

participation and that culture emerges through observation, communication, and actions” (AOTA, 2020a, p. 3). This model brings emphasis and attention to the client, reassuring that the occupational therapy practitioner should recognize and focus on the client’s unique background, their culture and expression of cultural identity.

The Culture Emergent Model also urges the clinician to practice self-awareness of one’s own stereotypes, misconceptions, and to pay careful attention to the clients’ feelings and attitudes. “The Culture Emergent Model is a self-reflection on one’s own cultural influences and biases. In occupational therapy education, it is essential to convey the importance and complexity of culture; they must embrace that uncertainty along with lifelong curiosity and humility” (AOTA, 2020a, p. 4).

This author chose to elaborate and discuss this model because self-reflection of how we treat others is vital in our daily life. Practicing self-awareness, gaining general knowledge and education of social determinants that affect various populations can impact how we treat individuals of different background than ourselves. “Education to promote cultural awareness is expected to improve health outcomes by enhancing the providers’ knowledge, skills, and attitudes towards clients and by developing their ability to provide culturally responsive and effective services, leading to increases satisfaction among clients” (AOTA, 2020a, p. 3). Developing interpersonal skills, identifying multiple learning resources, activities, and different teaching strategies is a good start that will have a direct impact on improving client outcomes and service provision.

Another beneficial resource and instructional strategy that has proven to help healthcare providers develop interpersonal skills is compassion training. According to

Houston, E., “compassion training involves training the mind to develop specific skills in order to relate to others and to ourselves, and making a conscious effort to think and act in a compassionate manner” (2019). Some examples of compassion training are: self-kindness, being mindful of others, common humanity, being kind towards others, relaxing your own judgements, practice active listening, generosity and thoughtfulness, healing from your own trauma, and practicing patience and presence. Sinclair and colleagues (2016) describe in their study, “Participants also provided recommendations for compassion training, including developing an interpersonal relationship with patients, seeing the patient as a person, and developing a human connection” (p. 1).

Compassion training is connected to developing interpersonal skills. Sinclair et al. (2016) explain that compassion training is a key first step towards the further development of core healthcare competency. Compassion training has imparted and inscribed in certain educational domains such as psychology, social work and theology; It is now being recognized for its positive impact in the healthcare field. “As its significance becomes increasingly recognized in enhancing quality patient care, wellbeing and overall quality of life, compassion and compassionate care are emerging as a competency that healthcare providers are expected to deliver” (Sinclair et al., 2016, p. 2).

The participants in this study described a few core elements the healthcare provider had to embody and follow in order to practice compassion training: build a relationship with the patient, understand the patient as a human being, and develop a human connection. (Sinclair et al., 2016). The research participants also identified the

importance of the healthcare provider homing in on their life experiences, developing trust, dialogue and showing genuine interest in the person in their care. “As a result, patients stressed the necessity for healthcare providers to receive training in the development of interpersonal skills in order for compassion to flourish” (Sinclair et al., 2016, p.5).

Conclusion:

These findings are from reliable resources with evidence-based data providing support to the common themes and questions of this project. Implementation of a cultural orientation program, utilizing cultural sensitivity and humility, engaging in community outreach programs, and practicing well-sound interpersonal skills all strongly impact the service provision of the healthcare provider. Application of this information to the program development and working collaboratively with the clients, families, clinic leadership, and the tribal directors is best suited to address the success of the occupational therapy clinic to meet the needs of the patients.

CHAPTER FOUR – Description of the Proposed Program

The people and populations occupational therapy practitioners serve are continually becoming more diverse throughout the country and globe. Recognizing and educating ourselves about the various health disparities among the individuals and cultures we serve is imperative for the profession to thrive. Occupational therapy interventions must be inclusive, equitable and beneficial to the client and their families. According to AOTA (2020a), “Occupational therapy practitioners must be equipped to inculcate habits of cultural awareness, humility, and dexterity in future practitioners, scientists, educators, and leaders” (p. 11).

In this chapter, the author thoroughly explains her vision, goals, and experiences when developing an occupational therapy-based intervention program in an outpatient health center located on an American Indian reservation serving the Navajo tribe. This project examines the implementation of occupational therapy services, the various activities of the program, desired outcomes, and highlights some of the examples the clinician accomplished. Furthermore, this clinician also underlines some of the challenges faced during the operation of the clinic. For example, the poor accessibility to the clinic due to the remote location, limited transportation, the lack of awareness and education of the Navajo residents, and the lack of resources to furnish the occupational therapy clinic. Knowing these obstacles, this chapter presents an innovative approach to start alleviating some of these problems: (1) increasing the Navajo reservation community’s awareness of how engaging in occupational therapy services can benefit them, (2) educating the clients of their functional performance deficits and, (3) applying cultural-relevant interventions

and treatment sessions to keep the client engaged.

The four main program elements driving the organization of the occupational therapy program are: (1) Cultural Competence Training; (2) Education (Staff & Clients); (3) Community Outreach, and (4) Development of Client-Based Programs. These program elements are chosen to focus on sustainability and culturally appropriate measures to achieve the goal of a successful functioning occupational therapy clinic. These four program elements are based on the theoretical framework of the Health Belief Model (HBM). “The Health Belief Model has been one of the most widely used conceptual frameworks in health behavior research, both to explain change and maintenance of health-related behaviors and as a guiding framework for health behavior interventions” (Champion & Skinner, 2008, p. 1). The Health Belief Model comprises of a few theories that individuals will act to prevent, screen for, or to control illness conditions. If the condition has the potential to cause serious consequences to the individual, it is up to them to find a course of action to help reduce the severity of the condition (Champion & Skinner, 2008).

This author chose the Health Belief Model to validate and support the program elements of the occupational therapy clinic. “Community context and needs must be considered. Sufficient time must be allocated to collaborate with tribal entities and with within systems that all too often operate within environments of scarce resources, insufficient infrastructure, and a history of distrust of outside researchers” (Whitesell et al., 2020, p. S9). Moreover, incorporating program elements that are meaningful to honor the Navajo tribe voices, and their cultural practices is beneficial to all of the reservation

community residents.

Program Design

The name of this author's program is "Developing an Occupational Therapy Program in a Rural Reservation Community Serving the Navajo Native Americans". The program is intended to be delivered in-person by this author, a registered and licensed occupational therapy practitioner. This author is the only occupational therapist at the outpatient health clinic to provide face-to-face clinical care occupational therapy services to the clients referred. The outpatient health clinic is located in a remote and isolated area within the southwest region of the United States, called the Four Corners region where the states: UT, CO, NM, and AZ meet (See Appendix A, *Figures 4.1–4.4*, map of the Four Corners region). The outpatient health center was built back in 2010, intentionally on an Indian reservation to serve the Navajo tribe Native Americans that reside there. The outpatient health clinic has other operating clinics/departments such as: pharmacy, optometry, general dentistry, internal medicine, social work, behavioral health, and a rehabilitation medicine department, which only had physical therapy services prior to the addition of the occupational therapy clinic. The addition of the occupational therapy clinic and programming in 2018 was intended to help the Navajo residents who have functional performance and mobility deficits that affect their daily life.

The occupational therapy clinic is an intervention-based program designed to serve the Navajo tribe Native Americans on their reservation land. The clinic provides physical rehabilitation services to address orthopedic injuries, exclusively upper extremity related disorders, along with productive aging, work-hardening/re-integration,

wheelchair mobility, driving rehabilitation, and health and wellness. However, the breadth and depth of the new occupational therapy clinic go beyond traditional rehabilitation practices. The key program elements are: (1) Cultural Competence Training; (2) Education (Staff & Clients); (3) Community Outreach; and (4) Development of Client-Based Programs.

Development of an occupational therapy program is critical to the outpatient health clinic. It is located in a remote and distant area with limited development of urbanized resources. There is a larger community hospital on the reservation however there is still a high need of pertinent medical and healthcare services that this dire population and community needs. The community residents living on the reservation are not aware of their healthcare benefits, nor of what occupational therapy is and how it can help them in their daily life skills. “People from low socio-economic groups not only trend to have poorer health outcomes when compared to people from more affluent backgrounds, but also have poorer outcomes following interventions” (Coupe et al., 2018, p. 2). One of the approaches this author utilizes to fill the knowledge gap is to educate the clients and the larger community about the program and how it can benefit them. According to AOTA’s Occupational Therapy Practice Framework (2017), “Occupational therapy practitioners use their knowledge of the transactional relationship among the person, his or her engagement in valuable occupations, and the context to design occupation-based intervention plans that facilitate change or growth in client factors (body functions, body structures, values, beliefs, and spirituality) and skills (motor, process, and social interaction) needed for successful participation” (S1).

Program Element: *Cultural Competence Training*

As part of the new employee orientation to the outpatient health center, extensive education and training efforts are issued to new staff to help understand the Navajo tribe Native American's historical background and trauma this indigenous population had to endure. Learning how to be culturally sensitive and aware is highly promoted so that we, the healthcare providers, could deliver and ensure good quality patient care services. According to Majda et al. (2021), "Skillful treatment of patients who are different in terms of culture, ethnicity, or religion requires preparation. Medical professionals should acquire and develop basic cultural competencies and cultural intelligence already during their studies" (p. 3). During the 2-week new employee orientation, healthcare providers learn to avoid stereotypes, give instructions slowly to the patients, and to avoid medical jargons. Using a Navajo interpreter and/or a family member that can translate to English is also recommended in case the patient does not speak English nor understand the clinician. The orientation, which comprised of the cultural competence training, is prepared to help the new employees be aware of our own biases, enable us to critically-think, and to increase our knowledge and awareness.

This author set the foundation of an outpatient occupational therapy clinic that could serve the needs of the clients. It is important to utilize health literacy documents by translating educational information from English to their native Navajo language. It is also vital to be very intentional about building a positive rapport with the client by being open and culturally sensitive about their cultural traditions, their view on family, food, and their daily occupations. Additionally, treating the clients with safe use of different

teaching methods is essential to receive the best outcome, reinforce healthy behavioral changes, and ensure the client returns for further follow-up treatment sessions.

“Improving cultural competencies is mentioned as part of the solution when it comes to reducing disparities” (Majda et al., 2021, p. 8).

In addition to cultural competence training, it is imperative to practice being compassionate towards the clients that attend the occupational therapy clinic and to all reservation community residents. Because of their historical hardship, generational trauma, and their many health disparities, developing a human connection and interpersonal relationship would benefit their experience. “In addition to training healthcare providers in actively listening and seeking to understand the broader meaning that clinical information had on patients’ lives, compassionate person-centered communication required healthcare providers to not simply engage the patient as a person but to see themselves as a person within the clinical encounter” (Sinclair et al., 2016, p. 6).

Through a lengthy work experience of being an occupational therapist, this author has learned the insight, psycho-social clinical skills, and the importance of cultivating compassionate feelings towards clients. Addressing their rehab-medical needs along with addressing the larger scope of how their illness and/or disability affects their daily life will add value.

Program Element: *Education & Methods to Recruit*

In order to ensure successful operation of the occupational therapy clinic, this author needed buy-in, cooperation and approval from several key stakeholders including:

the chief of rehabilitation medicine department, the lead medical provider of the outpatient health center, and the health center's government agency sponsor. These major stakeholders were able to approve funds for the clinic, operation of the clinic, and recruit patients to attend the clinic. These key stakeholders also supported the progress of the occupational therapy program because of their knowledge and awareness of the need and value of occupational therapy serving the community members living on the reservation. "Paying attention to stakeholders in evaluation practice is a strategy that has gained prominence for both practical and ethical reasons. The accumulated evidence demonstrates that attention to and involvement of key stakeholders enhances the design and implementation of evaluation and the use of evaluation results in decision making" (Newcomer et al., 2015, p. 37).

Another successful method to recruit clients into the new occupational therapy clinic was to provide an educational in-service/presentation to the other healthcare providers within the outpatient health center. This author scheduled a 30-45-minute in-service to inform the staff members about this clinician's educational background, previous rehab work experience, and the specific skills this clinician can provide to the patients attending the occupational therapy program. The educational presentation allowed the healthcare providers to ask questions regarding their patient's rehabilitation needs, the common disabilities and injuries they encounter, and how the new occupational therapy clinic can benefit their patients. This was an opportunity to educate others about the broad scope of the profession, how health disparities can be reduced among this disadvantaged population, and work collaboratively with the client and their

families to achieve goals.

The Navajo tribal leader wanted the medical providers and the healthcare services we provided to be culturally sensitive and aware of the on-going chronic medical illnesses this population has endured. “The historical experiences of Native Americans- epidemic disease, removal and restriction to reservations, and forced assimilation and urbanization-have shaped the contemporary health disparities of these populations” (Jernigan et al., 2018, p. S66). This occupational therapist reassured the tribal leader that cultural humility would be practiced, along with choosing various teaching methods, translating the reading material into the Navajo language, and taking a holistic approach to address the needs of the clients. The client’s cultural values and traditions would also be incorporated into treatment sessions.

Program Element: *Community Outreach*

In addition to receiving patient referrals from the medical providers, engaging in several community outreach activities to educate the community residents was beneficial to the new program. Building a rapport and connecting with the Navajo people living on the reservation was just as critical as providing care for them. This practitioner enjoyed engaging in numerous community outreach activities such as: school health fairs, community center senior day, 5k walk-a-thons, hiking events, farmer’s markets, and even yard sales. A health promotion and wellness program also was developed and implemented by this occupational therapist. It is called Cycle Well: Group Indoor Cycling and Healthy Living Program. This program showed the clients the benefits of participating in indoor cycling and how enjoyable it is. Cycle Well is a community-based

health and wellness program proposed to help the participants increase their physical activity, prevent obesity, make healthier food choices, improve their mood, and feel supported within a group setting. The ultimate goal is to promote a healthier lifestyle through cultural awareness and engaging in community group physical activity. (See Appendix A, *Figure 4.5* for the Cycle Well Editorial Newsletter for more details).

Another community outreach activity this author engaged in was a high school's college career fair. The high school is located on the Navajo reservation near the Utah border and the career fair was scheduled to be an all-day event from 7:30am–3:30pm located inside of the school's gym auditorium. The goal of participating in this event was to educate the high school students about countless healthcare related professions, the benefits, the college requirements, and the various places of employment once the college degree is achieved. This occupational therapist setup the space and table with rehab-related occupational therapy tools and instruments commonly used. For example: splints, splint material, kinesiotape, TheraBand, and different adaptive equipment devices commonly issued to patients. The items were set up on the table for the students to touch, look at, and ask questions. In addition to the items, this clinician created a low-literacy brochure (for students to take) with information about occupational therapy to educate them about the profession, what college courses are required, and how long it generally takes to complete school. (See Appendix A, *Figure 4.6* for the low-literacy occupational therapy brochure).

Moreover, this clinician also presented an educational presentation at the reservation community center on senior day about occupational therapy and its new clinic

at the outpatient health center on the reservation. There were approximately 30-40 Navajo senior citizens present there and the presentation was planned for during their lunchtime from 12–2pm. Similarly, to the high school outreach event, this author had a designated space and table to display several occupational therapy instruments and adaptive equipment. A brochure was tailored for the seniors to take and read about the new occupational therapy clinic at the outpatient health center. This clinician also brought enough items to give away to the seniors to entice them, build rapport, regain trust so that they felt welcome to ask this clinician questions and come to the clinic.

By engaging in multiple community outreach activities, this practitioner ensured that more of the community residents were informed of the new occupational therapy program and that they would also share with their family members. Intervening at a community level offers more connection, interaction, awareness, and understanding of the Navajo Native Americans. “It is essential to continue developing multilevel intervention studies that address the complex social determinants of health disparities among the Natives. Secondly, multilevel interventions need to be sustainable. The sustainability of an intervention is enhanced by cultural relevance and community support, which in turn makes it easy to disseminate” (Jernigan et al., 2018, p. S71).

Program Element: *Development of Client-Based Programs*

In addition to engaging in community outreach activities, this clinician implemented a health and wellness program to help clients incorporate exercise into their day-to-day routine. Cycle Well: Group Indoor Cycling & Healthy Living is a health promotion and wellness program developed to help the Navajo residents combat obesity

and other ongoing generational chronic medial diseases such as, type II diabetes, hypertension, high cholesterol, stroke risk factors, and heart disease. “Several studies suggest that Native American youths have a higher prevalence of obesity than the general United States population. Additionally, research suggests that obesity may persist into adulthood and increase the risk of chronic diseases including heart disease, increased blood pressure, and type 2 diabetes, thus making it a major public health concern” (Fila & Smith, p. 1). Indoor cycling (also known as Spinning® or Spin for short) is an aerobic exercise performed on a stationary bike in which the operator can adjust the resistance to their level and make it more challenging. Indoor cycling has been proven to help individuals lose weight, lower stress levels, improve sleep, and enhance mood.

Furthermore, a healthy eating/living portion to the cycling class was comprised of nutrition-based educational tips to help the participants make wiser food choices and promote a healthier lifestyle. Practicing cultural sensitivity, the facilitator invited a Navajo-speaking nutritionist to help reinforce the nutrition section of the program and help recruit more individuals to the program. The Navajo-speaking nutritionist was able to provide education to the participants, helped them find healthier options in the grocery store, and taught them different and healthier ways to cook and prepare some of their traditional foods. Collaborating with a Navajo-speaking nutritionist enhanced the program’s cultural awareness, imparted respect for the members, and encouraged them to live a healthier lifestyle. “Programs developed and administrated primarily by native staff were described less frequently as cultural adaptation. In contrast, non-native authors may have perceived cultural adaptation as a significant characteristic of the program and felt

compelled to describe the process. The most sustainable strategy was offering regular physical activity or exercise classes led by trained local instructors. As noted by increasing numbers of public health practitioners, the use of community-based participatory research may be one approach to change social norms governing physical activity coupled with scientifically sound evaluation” (Teufel-Shone et al., 2009).

Cycle Well: Group Indoor Cycling and Healthy Living was created for the Navajo community residents, adults and children over 12 years old with medical clearance to participate in this health promotion and wellness program. The program setting was within the community wellness gym inside of the outpatient health center located on the Navajo reservation. Cycle Well was free and open to all staff employees; the classes were held every Tuesday and Thursday from 5–6pm. The first 40 minutes were indoor cycling and the remaining 20 minutes of the class was dedicated to the nutritional educational in-service. The facilitator used various strategies to recruit individuals to participate in the Cycle Well program. The facilitator distributed flyers within the outpatient health center, sent out emails to invite the staff members, used the community center on the reservation, social media announcements, and word of mouth.

The Navajo community have newsletters that are printed out and posted up at the reservation community center, the senior day-care center, the local gas station, the outpatient health clinic, and even inside of the reservation grocery store. This author created a newsletter about the Cycle Well program that was easy to read, understand, and included pictures that are inviting and fun. (See Appendix A, *Figure 4.5* for the Cycle Well program placed in the Navajo Community Editorial Newsletter).

The Community Engagement Theory was used to guide the foundation and progression of the Cycle Well program because the framework is often applied among public health professions and community leaders to help improve the health of disadvantaged populations and/or minimize health disparities. The Community Engagement Theory involves several concepts to include empowerment, community capacity and participation (See Appendix A, *Figure 4.7* for the Community Engagement Theory). It was a natural process to utilize this framework to structure the Cycle Well program because it focuses on community building, integration of knowledge and action and most importantly respect for cultural diversity and humility. “Community engagement has been advanced as a useful strategy for improving people’s health and as a means of enabling people who lack power to gain control over their lives — and thereby improve their own health” (Brunton et al., 2017, p. 944)

Indoor cycling is one of the most-practiced forms of aerobic exercise in multiple fitness centers across the country. Individuals of all ages, with medical clearance from their primary care doctor, can engage in this easy physical activity, regardless of their physical conditioning level. The combination of indoor cycling and following a healthy diet is recommended to help individuals lose weight, lower cholesterol, reduce blood pressure, and improve mood. Refer to Table 4.1 regarding the predisposing and reinforcing factors (See Appendix A, *Table 4.1*). Cycle Well can help individuals with these medical issues. Furthermore, the Cycle Well program is designed to encourage the participants to be part of a community, hold oneself and others accountable; to motivate and inspire others in the class. Group exercise has been proven to provide social support,

be around like-minded people, and encouragement. The program content idea is that the participants will gravitate towards the healthy exercise behaviors of those around them.

Basis

In order for this author's program to launch and continue on evidence-based sound research, the clinician gathered information that would allow the occupational therapy clinic to thrive, a research design that incorporated both formative and summative research methodology. The Health Belief Model was used to provide a foundation and framework for the occupational therapy clinic and this project. The Health Belief Model is a theoretical model used to describe and understand individual changes and their health behaviors. "The Health Belief Model (HBM) addresses the individual's perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act barriers, cues to action, and self-efficacy" (Glanz & Rimer, 1997, p. 23). Fortunately, the Health Belief Model can be used at the individual level and at the community level. It has also evolved gradually through continued research and responses to multiple public health concerns.

Another literature that supports the implementation of innovative practices among indigenous communities is based on the Whitesell et al., (2020) application of rigorous intervention science. It allowed the clinician to involve several efforts of creating health equity approaches, despite the Native American's history of medical mistrust. "The promising practices profiled include new strategies in (a) community partnerships, engagement, and capacity building; (b) integration of indigenous and academic

perspectives; (c) alignment of interventions with indigenous cultural values and practices; and (d) implementation and evaluation of multilevel interventions responsive to complex cultural contexts” (Whitesell et al., 2020, p. S5). This article was very helpful as it mentions relevant policy and systems. For example, honoring cultural practices and local voices (i.e., Navajo tribal leader) in order to be effective, engage the community residents to help regain their trust.

Moreover, the use of the community-based participatory research (CBPR) approach often has been adopted and utilized among indigenous populations. CBPR ensures collaboration, communication, open-dialogue and bi-directional learning between the provider and client. “The foundational principles of CBPR maintain research relationships with an eye toward equity, community input, and mutual respect and recognize different perspectives and ways of knowing. One key element includes the rejection of privileging western over indigenous methods and practices, and instead, building on the strengths of both traditions in gathering trustworthy evidence” (Whitesell et al., 2020, S7). Overcoming resistance, building trust, working in partnership, and listening to the tribal leaders and community input are some of the key methods this author used to build a relationship with the clients.

Program Evaluation

The purpose of evaluating the occupational therapy services was to optimize the operation of the clinic’s first occupational therapy department. It was primarily exploratory. It was necessary to receive feedback from the clients and staff in regards to ways to improve the program’s service provision. This formative input helped the

program developer to mitigate obstacles that may have hinder the community members' participation and attendance. Standardized testing was administered along with a scorable survey, Likert style, 0-10 rated items. Formative research was carried out by issuing open-ended survey questions to the clients and staff, and by conducting semi-structured interviews. Open-ended survey questions, ten short Likert-style questionnaires and semi-structured interviews were delivered to the client face-to-face on their last day of a treatment session. For example, here are some of the open-ended questions:

- What can be done to improve the program?
- What did you like the least or best about your sessions?
- Do you feel like you have made any gains from your occupational therapy session in your ability to function safely in your daily life activities? If so, how?
- How would you describe your experience?
- What problems get in the way most of you coming to your therapy appointment?
- If you could choose one barrier to remove, which one would it be?

The survey questions were clear, brief and include Likert-style survey questions with the use numerical 0-to-10 rating in which only the end points are defined. For example, research participants could rate their level of satisfaction with service provision or accessibility, 0 being "*Not at all Satisfied*" and 10 being "*Completely Satisfied*". A Navajo speaking interpreter was also available if needed.

A summative design approach was used to gather data on client retention rate, number of client caseload, footprint, number of evaluations, and number of follow-up appointments completed. Some preliminary summative outcomes data were collected to

determine the magnitude of positive changes in dependent variable of interest, including skilled clinical evaluation of strength, range of motion, and function. The Goal Attainment Scale, an individualized approach to goal-setting with a client, was issued to assess the changes in their goal-setting and how it impacted their treatments. Standardized assessments and pre- and post-measurements were taken via the skilled use of goniometers and dynamometers regarding any orthopedic and musculoskeletal issues. “Mixed method approaches in evaluation are very common, and that means that both quantitative and qualitative data are used, and quantitative and qualitative data collection methods are used in combination” (Newcomer et al. 2015, p. 12).

To ensure enrollment of participants, there were no restrictions of individuals referred to the occupational therapy program. It was open to all qualified individuals requiring occupational therapy services and who had a consult/referral from their physician and/or nurse practitioner. Participants who are under the age of 12 years old were excluded from the program as the clinic was not set up for pediatric patients. Pediatrics were also not included in the author’s program evaluation research due to confidentiality issues. Every client was assigned a random number for identification purposes and a spreadsheet was used to connect each person with his or her code secured in a safe place. In order to ensure confidentiality, the client’s name, social security number, or any other identifiers obtained from their medical record were not used.

Objectives and Expected Outcome

One of the key objectives regarding the development of an occupational therapy program was to serve the underserved Navajo tribe Native Americans. This clinician is

trained to provide quality patient care and occupational therapy services to people of all ages, races, ethnic, and cultural backgrounds. As an occupational therapist, the main goal is to evaluate and treat clients who face multiple physical and/or mental barriers that hinder them from participating in their daily life activities and occupational roles. Due to the sensitive nature and historical trauma of the Native American population, this clinician practiced cultural humility and awareness. According to American Occupational Therapy Association (2020), “For meaningful client-centered occupational therapy practice, it is essential to strive continually for an understanding of the influences of culture on identity and behaviors” (p. 3).

Another desired outcome from the interventions delivered to the clients was an increase in referrals and attendance. This was accomplished by educating the patients of occupational therapy services, the benefits of engaging in their treatment sessions, and by educating the neighboring communities about the program and its value. Continuation of the patient referrals to the occupational therapy clinic was manifested by quarterly educational presentations to the medical providers and other healthcare workers. Continuous education about the program was accomplished by attending community health seminars, presenting at the Senior day-care centers and the local reservation high schools during their college and career exhibitions.

Potential Barriers and Challenges

The American Indians have long suffered as indigenous people. There are many challenges they face that hamper them from receiving medical and health care services. Particularly, living in a remote area, poverty, low-literacy level, poor financial resources,

overall poor health, low-employment rate, and lack of transportation are some of the few areas that have been affected. “Native people in the United States continue to have high prevalence estimates of health behaviors that might contribute to excess deaths from chronic diseases, injuries, and cancer” (Cobb et al., 2014, p. S487). Here are some examples of the barriers and challenges of developing an occupational therapy program within an outpatient health clinic that is located in a remote rural area: poor and underserved community, shortage of healthcare providers, isolated rural location, high turnover and difficulty to retain clinicians, and ineffectual sustainment of beneficial healthcare programs. The outpatient health center is also very secluded and small.

According to the World Health Organization (WHO) 2012, “There is a close relationship between poverty, ill-health and limitations in access to health services...Poverty and reduced access to good quality services are intertwined” (Grut et al., 2012, p. 1–2). Furthermore, individuals who live within a remote, rural area experience great difficulty receiving medical care and gaining access to it. They may also have limited to no insurance coverage and are in desperate need for essential healthcare services such as primary care, long-term care, oral healthcare, and public health services, just to name a few. Lack of healthcare services causes an extreme shortage of healthcare providers making it very difficult to retain healthcare workers staffed. One of the biggest complaints this author heard from the Navajo Native American patients was that they had to repeat their story, or complaints, multiple times to different providers due to the high turnover. “Rural communities have difficulty creating, recruiting, and sustaining an adequate healthcare workforce” (Daniels et al., 2007, p. 62). This also contributes to

medical mistrust. According to Majda et al. (2021), “Language barriers, socio-economic conditions, religious values, and cultural practices can be an obstacle to delivering high-quality care to an increasingly diverse patient population” (p. 8).

Development of an occupational therapy program is critical because of the high need and the potential benefits the community residents can gain. Particularly, this author found that the Navajo Native Americans living on the reservation were not even aware of what occupational therapy is and how it could help them in their daily life tasks. “People from low socio-economic groups not only tend to have poorer health outcomes when compared to people from more affluent backgrounds, but also have poorer outcomes following interventions” (Coupe et al., 2018, p. 2). Another challenge faced is the long-distance and seclusion of the outpatient health clinic. There is a lack of public transportation (i.e., city buses, taxis, or ride-share companies) and many clients miss nor follow-through with their medical appointments. Lastly, another potential barrier is the sustainability of the occupational therapy program within the outpatient health center.

Summary/Conclusion

In summary, the development of an occupational therapy program in a rural community setting serving the Navajo Native American population is a fascinating and an interesting experience. There are obstacles of cultural differences, medical mistrust, and poor patient follow-through. Despite these trials, there are great learning opportunities to grow professionally and clinically. Providing occupational therapy services to this population granted this clinician a way to connect with the clients, be a positive influence, learn to be more culturally sensitive and aware, and complete an

inspiring task. Engaging in various community outreach events and developing the Cycle Well: Group Indoor Cycling and Healthy Living Program is this author's favorite. It allows this clinician to think outside of the box, make positive connections with the clients and community residents, and educate them about the mission of the new occupational therapy program.

In the light of all the research and information gathered, the ultimate goal is to have and sustain an operational and equipped occupational therapy clinic to serve the Navajo community members living on the remote reservation. There will be difficulties that need to be addressed however throughout time, resources, and more community involvement, some of these challenges can be reduced and eventually eliminated.

CHAPTER FIVE – Program Evaluation Research Plan

Program Scenario and Stakeholders

This chapter describes this author’s program evaluation for “Developing an Occupational Therapy Program in a Rural Reservation Community Serving the Navajo Native Americans”. The new occupational therapy clinic was created within an outpatient health center located on a rural reservation land serving the Navajo Native Americans. The outpatient health clinic is located on a remote and isolated area within the southwest region of the United States on an Indian reservation serving the underserved Navajo tribe Native Americans. The program was intended to be delivered in-person by this author, a registered and licensed occupational therapy practitioner, who was the sole occupational therapist at the outpatient health clinic to provide client-based services to clients referred. The clients were referred to the new occupational therapy clinic by their primary medical providers and/or by their intermediate healthcare providers at the clinic (i.e. nurse practitioners and/or physician assistants). Additional clients were referred by the physical therapists within the rehabilitation department.

The new occupational therapy program includes: (1) an occupational therapy clinic that provides client-based services and (2) engagement in diverse, inclusive community-outreach activities. Moreover, this project discovered some of the difficulties experienced during the implementation of the occupational therapy program. Some of these difficulties were identified as barriers the Navajo Native Americans had to endure. For example: poverty, low-literacy levels, inadequate finances, limited public transportation, many health challenges, limited resources, and patient resistance.

According to the World Health Organization (WHO), “There is a close relationship between poverty, ill-health and limitations in access to health services. Poverty and reduced access to good quality health services are intertwined” (Grut et al., 2012, p. 1–2). Regardless, the goal of the occupational therapist was to operate a successful clinic and serve the Navajo community residents notwithstanding of the obstacles and challenges.

The intended users of this program were the Navajo Native Americans that live on the reservation. The occupational therapy practitioner and the clinic was primarily for adults with occupational therapy needs, orthopedic disorders, neurological deficits, needs for work-hardening and community re-integration. The clinic was not specialized for pediatrics however the occupational therapist was willing to see children with orthopedic needs. The chief of the rehabilitation department, the lead medical provider of the outpatient health center, the Navajo Tribal leader, and the health center’s government agency sponsor were the major stakeholders. These stakeholders were vital because they were able to support this author’s new occupational therapy program by improving the community residents’ access to healthcare, improving their access to specialized rehabilitation needs, engaging them in community involvement, and most importantly, helping to promote their health and well-being through prevention of further disease.

According to the World Federation of Occupational Therapy (WFOT, 2010), the main goal of occupational therapy is to promote health and well-being through enabling individuals with or at-risk of disability to engage in life-sustaining and health-promoting occupations. It achieves this goal through the facilitation of daily activities that promote physical and psychological well-being such as self-care and vocational tasks.

“Occupational therapists (Ots) involvement in the community would assist with identifying community-specific determinants of the burden of disease. Ots need to partner with the community to develop and implement health promotion programmes to ensure sustainable culturally relevant intervention that addresses the identified problems or health behaviors” (Van Wyk et al., 2017, p. 10).

Innovative approaches were developed to help reduce some of the barriers such as: (1) increasing the awareness and education of the Navajo community residents about the new occupational therapy program; (2) applying, effective, culturally-relevant measures and interventions into occupational therapy treatment sessions; (3) educating the clients about their functional performance deficits, and (4) engaging in community-based outreach events. One of the most effective ways to accomplish these goals was by being culturally sensitive, culturally-aware, having respect, and taking the time to develop trust and rapport with community residents. Identifying and educating ourselves about the clients’ health disparities and culture is crucial for the profession to thrive.

Figure 5.1

Case Example Illustrating Successful Occupational Therapy Intervention for a Member of the Navajo Community

Regina, a 52-year-old female member of the Navajo community complains of low back pain, bilateral wrist pain, and left elbow pain, as she has worked as a housekeeper for the past 20 years. She had been attending physical therapy for her low back pain but has never tended to her elbow and wrist pain. At the initiation of the occupational therapy clinic, Sheila received a referral that allowed her to receive occupational therapy services

to help her manage her upper extremity pain. She completed her occupational therapy home exercise program, adhered to joint protection principles during her daily activities, and wore her nighttime wrists splints daily. Moreover, she was vigilant in applying what she learned about body mechanics and activity modification techniques to her daily job tasks, which improved her physical capabilities. Sheila made some positive gains from the program and was committed to doing what was necessary to continue to improve her overall function.

As shown above, by having Sheila receive and participate in occupational therapy services, she was allowed to keep her job which decreases the rate of unemployment. Sheila is also now well-informed about occupational therapy services and the other healthcare specialties provided at the outpatient health clinic which will increase the use of her medical benefits. Moreover, engaging with Sheila exposed her to broadening her attitude and acceptance towards receiving a form of westernized medicine and therapy services.

Vision

The key vision of the development of the occupational therapy clinic was to serve the Navajo community residents living on the reservation. This clinician is trained to provide quality patient care and occupational therapy services to people of all ages, races, ethnic, and cultural backgrounds. As an occupational therapist, the main goal is to evaluate and treat patients who face multiple physical and/or mental barriers that hinder them from participating in their daily life activities and occupational roles. Due to the

sensitive nature and historical trauma of the Native American population, this clinician practiced cultural humility and awareness. According to American Occupational Therapy Association, “For meaningful client-centered occupational therapy practice, it is essential to strive continually for an understanding of the influences of culture on identity and behaviors” (AOTAA, 2020, p. 3).

Another desired outcome from the interventions delivered to the clients was to have an increase in patient referrals and attendance. This was accomplished by educating the patients and their families of occupational therapy services, the benefits of engaging in their treatment sessions, and by educating the neighboring communities about the program and its value. Continuation of the patient referrals to the occupational therapy clinic was manifested by quarterly educational presentations to the medical providers and other healthcare workers. Continuous education about the program was accomplished by attending community health seminars, presenting at the Senior day-care centers and the local reservation high schools during their college and career exhibitions.

One of the long-term goals for the ongoing development of the occupational therapy program was to try to eliminate, or at least reduce, some of the obstacles the Navajo community faced when trying to attend to their health. For example, availability of a shuttle bus to transport individuals from the reservation to the outpatient health clinic for their medical appointments would help ensure attendance. Another long-term goal was to educate the neighboring communities about occupational therapy as a healthcare benefit and help enhance their understanding about the services that occupational therapy provided. Additionally, improving the retention rate was another long-term goal. Due to

various circumstances such as distance and transportation, many clients did not follow-through with their medical appointments. One way to facilitate a better retention rate was to contact the client two to three days ahead of time prior to their appointment and remind them of the date and time of their appointment. Postcards or letters were mailed out so that the client can have a written reminder of their follow-up appointment.

Engagement of Stakeholders

Achievement of buy-in from the stakeholders who were likely to provide support, financial resources and even active involvement, in the development and completion of the occupational therapy clinic was essential. They were more equipped financially to assist with reducing some of the obstacles and challenges that hinder the growth of the program. “Stakeholders are included when there are good and prudent reasons to do so, but not when their involvement is impractical, unnecessary, or imprudent; To ensure buy-in by key stakeholders, the evaluation should align with and address their interests and concerns” (Newcomer et al. 2015, p. 46). Some of the steps this author planned to take to ensure buy-in and stimulate cooperation of the stakeholders was to find a common ground and agreement on the program’s purpose. The collaboration of the stakeholders and the author needed to be aligned to assure the occupational therapy clinic would be useful, meaningful, and applicable to the sensitive population being served.

Another technique to ensure buy-in and promote cooperation of the stakeholders was to provide a purpose network diagram that displayed the goals and outcomes of the occupational therapy clinic. Providing a visual diagram of the occupational therapy clinic and its purpose to aid the Navajo community members helped to clarify the program’s

objective and encourage the stakeholders' engagement efforts. "Creating a purpose network diagram can be very helpful...A purpose network (or hierarchy) diagram indicates the various inter-related purposes that the evaluation might serve" (Newcomer et al. 2015, p. 46). Not to mention, including the Navajo tribal leaders and elders in the development of the new occupational therapy program ensured buy-in and invited their cooperation. This was done by arranging a community meeting with the tribal leaders and elders to share the vision and goals of the new occupational therapy program. Listening and receiving feedback from the tribal leaders on what could be done to help eliminate or lessen some of the obstacles was very beneficial.

In order to ensure successful operation of the occupational therapy clinic, this author needed buy-in, cooperation and approval from several key stakeholders including: the chief of rehabilitation medicine department, the lead medical provider of the outpatient health center, and the health center's government agency sponsor. These major stakeholders were able to approve funds for the clinic, operation of the clinic, and recruit patients to attend the clinic. These key stakeholders also supported the progress of the occupational therapy program because of their knowledge and awareness of the need and value of occupational therapy serving the community members living on the reservation. "Paying attention to stakeholders in evaluation practice is a strategy that has gained prominence for both practical and ethical reasons. The accumulated evidence demonstrates that attention to and involvement of key stakeholders enhances the design and implementation of evaluation and the use of evaluation results in decision making" (Newcomer et al., 2015, p. 37).

Another successful method used to recruit clients into the new occupational therapy clinic was the provision of an educational in-service/presentation to the healthcare providers working at the outpatient health center. This author scheduled a 30-45-minute educational presentation/in-service to inform the staff members about this clinician's educational background, previous rehab work experience, and the specific skills this clinician could provide to the patients referred to the occupational therapy program. The educational presentation allowed the healthcare providers to ask questions regarding their patient's rehabilitation needs, the common disabilities and injuries they encounter, and how the new occupational therapy clinic could benefit their patients. This was an opportunity to educate others about the broad scope of the profession, how health disparities could be reduced among this disadvantaged population, and how working collaboratively with the client and their families helped to achieve goals.

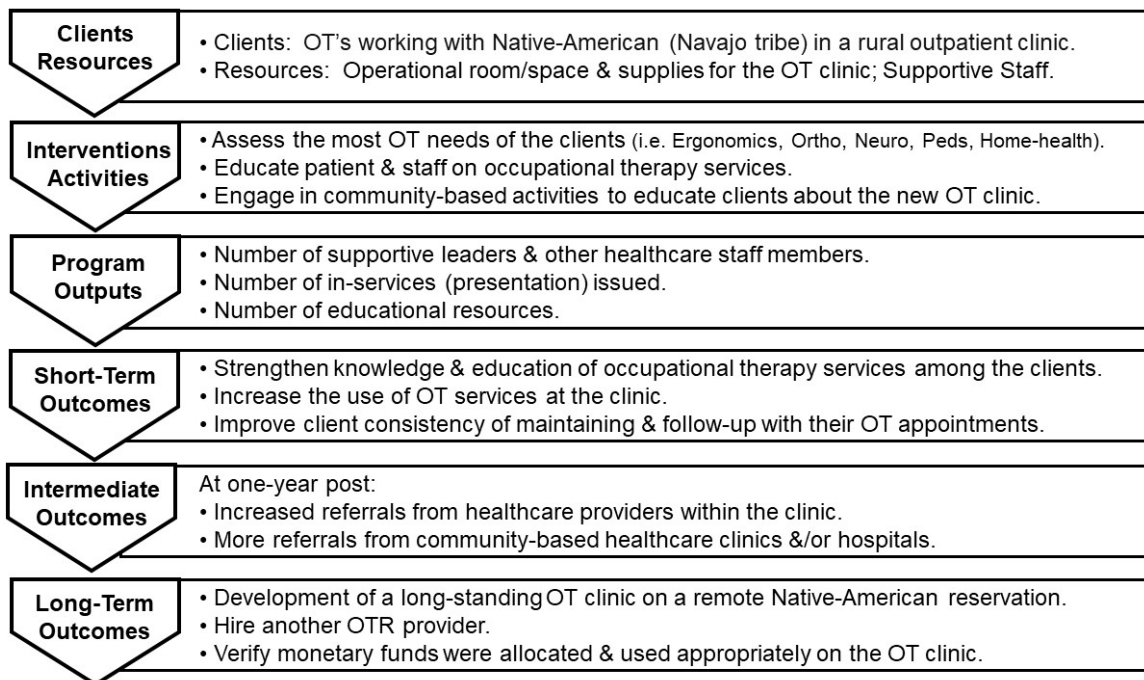
The Navajo tribal leader wanted the medical providers and the healthcare services we provided to be culturally sensitive and aware of the on-going chronic medical illnesses this population has endured. "The historical experiences of Native Americans- epidemic disease, removal and restriction to reservations, and forced assimilation and urbanization-have shaped the contemporary health disparities of these populations" (Jernigan et al., 2018, p. S66). This occupational therapist reassured the tribal leader that cultural humility would be practiced, along with choosing various teaching methods, translating the reading material into their Navajo language, and taking a holistic approach to address the needs of the clients. The client's cultural values and traditions would also be incorporated into treatment sessions.

Simplified Logic Model for Use with Stakeholders

The logic model below displays the basic flow of the activities, goals and outcomes that are vital components to the development of the occupational therapy program/clinic while still confronting the difficulties that may delay the process.

Figure 5.2

Simplified Logic Model



Preliminary Exploration and Confirmatory Process

In order to maximize the participation of the stakeholders, this author prepared various methods to increase active involvement. In addition to the quarterly in-service presentation to the staff healthcare providers, becoming involved in various community activities was imperative. The community members living on the reservation, along with the tribal leaders, were not only clients but are also stakeholders. It was essential for them

to understand the location of the clinic, the numerous services provided at the outpatient health clinic, and if they qualified for the health services. One of the obstacles some of the community members endured was the inaccessibility of transportation to the clinic. According to a qualitative by Grut et al., (2012), “Among the factors which reduce access to health services for poor people with disabilities are unavailability and inaccessibility of health services, combined with financial constraints and ignorance of available services, inadequate and inaccessible transport” (p. 2).

Equally important, this writer along with other supporting healthcare providers went into the reservation communities and sought people out to inform them about the new occupational therapy program at the outpatient health center. This was accomplished by participating in various community activities such as health-fairs, 5k walk-a-thons, farmer’s markets, and even yard sales. Building a relationship with the Navajo community residents was just as critical as providing them care. Conducting a focus group with the multi-level stakeholders was held quarterly to review client feedback, suggestions, review of revenue, and gathered new information to help facilitate the growth of the occupational therapy clinic. The focus group with the multi-level stakeholders also included the Navajo tribal leaders to gather their opinions and suggestions on how we can help to eliminate some of the challenges that hinder community members’ participation and attendance.

Program Evaluation: Questions by Stakeholder Group

Table 5.1

Program Evaluation Research Question by Stakeholder

Stakeholder or Stakeholder Group	Types of Program Evaluation Research Questions
<p>Indian Health Services (IHS) Persons actively involved in program delivery</p>	<p><i>Qualitative:</i></p> <ul style="list-style-type: none"> • Will the program be well received from the community? • Will the new space for the clinic be at an optimal location within the clinic? i.e. distance from the parking lot, inaccessible for individuals seated in a wheelchair and/or intensity for learning? • Will an occupational-therapy based intervention program help to improve the client's injuries/disability? • What other crucial issues or problems faced by participants were not addressed in the program? <p><i>Quantitative:</i></p> <ul style="list-style-type: none"> • Did participants gain needed skills consistent with the program goals? • Did the clients of the intervention program make any improvements in terms of desired performance consistent with program goals? <p>Did any unfavorable circumstances (such as missed appointments) from the client decrease reliability of the program goals?</p>
<p>Dept. of Human & Health Services Facility, educational institution or organization administration or management</p>	<p><i>Qualitative:</i></p> <ul style="list-style-type: none"> • Is the program delivery structure appropriate for the priority population? • Were program participants sufficiently prepared to apply the learning content to their daily living activities? • Did the clients or their family members report a positive experience with the care they received? • Were there any complications or glitches reported or found? • How can we determine the level of satisfaction of staff and participants with the program and record their recommendations of change for improvement? <p><i>Quantitative:</i></p> <ul style="list-style-type: none"> • Will the research data show that the intervention led to desired change in dependent variables of interest?

	<ul style="list-style-type: none"> • Can the research data be used elsewhere to demonstrate improved quality of care provided to clients of the same intervention? • Has this program positively impacted employee reported job-satisfaction? • Will the cost of the delivery of this program be more than other means of delivery? <p>What were the rates of program withdrawal?</p>
<p>Funding agencies, advocacy organizations, including AOTA, policymakers.</p>	<p><i>Qualitative:</i></p> <ul style="list-style-type: none"> • Do the clients report an improved understanding of the role of occupational therapy in provision of services relevant to the project? • What outcomes would be facilitated by OT interventions that are not currently addressed through physical therapy services? • Are participants confident that they will be able to support occupational therapy services as an instrumental change within their community? • Are the long-term goals of the program realistic and achievable? • Will the program increase awareness of developments in the field? <p><i>Quantitative:</i></p> <ul style="list-style-type: none"> • Will the findings demonstrate the importance of the role of OT for providing services to this specific population? <p>Will findings demonstrate that the course content matches the knowledge needed to close the clinical gap the project is addressing?</p>

Table 5.2:

Interview and/or Survey Questions to Address Short-Term Research Questions

Stakeholder or Stakeholder Group	Interview and/or Survey Questions
Clients	<ul style="list-style-type: none"> • Have you been experiencing any challenges with regard to your ability to do things that you want and like to do? • What makes it hard for you to attend occupational therapy sessions and follow through with the program? • What would make it easier for you to attend occupational therapy sessions and follow through with the program? • Have you been experiencing any challenges with regard to your ability to access occupational therapy treatment at the clinic? If yes, what are those challenges? • What challenges can occupational therapy help eliminate? • What resources or interventions will increase an interest in OT services?

Research Design

In order for the occupational therapy clinic to thrive, this author completed a program evaluation. A program evaluation research design that incorporated both formative and summative research methodology was best. The aim of the study was to optimize the operation of the clinic's first occupational therapy program; thus, it was mainly exploratory. It was crucial to receive feedback from the clients and staff regarding different ways to improve the program's service provision. This formative input helped program developers to mitigate obstacles that hindered community members' participation and attendance. Formative research was carried out by issuing open-ended survey questions to the clients and staff, and by conducting semi-structured interviews.

Open-ended survey questions and ten short Likert-style questions were delivered to the client face-to-face on the last day of their treatment session via semi-structured interviews. The survey questions were clear, brief and include Likert-style survey questions with the use numerical 0–10 rating in which only the end points are defined. For example, research participants could rate their level of satisfaction with service provision or accessibility, 0 being “*Not at all Satisfied*” and 10 being “*Completely Satisfied*”. A Navajo speaking interpreter was also available for the client if needed.

This occupational therapy practitioner was additionally interested in gathering data on retention rate, client caseload footprint, number of evaluations, and number of follow-up appointments completed. Some preliminary summative outcomes data were collected to determine the magnitude of positive changes in dependent variable of interest, including skilled clinical evaluation of strength, range of motion, and function. The Goal Attainment scale, an individualized approach to goal-setting with a client, was issued to assess the changes in their goal-setting and how it impacted their treatments. Standardized assessments and pre- & post-measurements were taken via the skilled use of goniometers and dynamometers regarding any orthopedic and musculoskeletal issues.

Methods

Due to the seclusion of the outpatient health clinic and the difficult history of this indigenous population, there were many trials that the community residents faced, which often impeded the provision of healthcare. Implementation of the occupational therapy program was essential because there is a high need for delivery of occupational therapy services to those who require help with their functional performance during daily

activities.

To ensure enrollment of participants, there were no limits on the number of individuals enrolled. The program was open to all qualified individuals requiring occupational therapy services and who had a consultation/referral from their physician and/or nurse practitioner. Participants under the age of 12 years old were excluded from the program as the clinic was not set up for pediatric clients. Pediatric clients were also excluded from the author's program evaluation research due to confidentiality issues. Every client was assigned a random number for identification and a spreadsheet was used to connect each person with his or her code secured in a safe place. In order to ensure confidentiality, the client's name, social security number, or any other identifiers obtained from their medical record was not used. The surveys were issued to each participating client towards the end or on the last day of their occupational therapy appointment.

As the progression of the occupational therapy clinic developed, some of the challenges were new to this author. For instance, the lack of transportation hindered the community members from coming to their occupational therapy appointment along with their other medical appointment at the outpatient health center. Furthermore, some of these obstacles were cultural and some can be eliminated and/or reduced. The development of a shuttle bus to transport individuals from the reservation to the outpatient health clinic for their medical and/or therapy appointments, could be one of the issues resolved through an increase in financial/funding resources. The barriers that are cultural were lessened or at least diminished once a rapport was developed with the

Navajo clients and their families. A large percentage of Native-Americans in the Navajo tribe, believe in their traditional healing methods rather than choosing Westernized medicine. These are their cultural values influenced by multiple factors of longevity and have impacted their life course.

In order for a successful operation of the occupational therapy clinic, the approval of several stakeholders was required. The chief of rehabilitation services, the chief medical officer, and the other intermediate healthcare are some of the main stakeholders. Other significant stakeholders are the Navajo clients, the community members, and the tribal leaders/elders. They provided helpful feedback and suggestions on improving the program and identifying obstacles that could be eliminated to help improve the situation. This was accomplished by hosting a quarterly focus group meeting to analyze all information gathered to carefully develop an articulated plan for the new occupational therapy program.

Evaluation Approaches

The type of formative design chosen for this program evaluation research was a qualitative methodology. Qualitative feedback was used to help improve the way the program was being delivered. The plan was to administer short surveys with open-ended questions designed to elicit constructive responses from the participants, which included community members, staff, and administrative stakeholders. The information obtained from our multi-level stakeholders was cross-checked to enhance rigor of the qualitative inquiry obtained.

For example, these were some of the open-ended questions used:

- What can we do better to improve the program?
- What did you like the least or best about your treatment sessions?
- Do you feel that you benefitted from the occupational therapy sessions and increased your ability to function safely in your daily activities? If so, how?
- How would you describe your experience?
- What obstacle hinders you the most from coming to therapy?
- If you could choose one obstacle to eliminate, which one would it be?

These questions were conducted in person, in the occupational therapy clinic; every participant was assigned a random number. NVivo, a computer software program, was used to organize and arrange the data obtained from the clients and Microsoft Excel spreadsheets was used to store data on categories and their frequency of occurrence.

A summative program evaluation design approach was used by gathering data on retention rate, number of client caseload footprint, number of evaluations, and number of follow-up appointments completed. Pre- and Post-measurements were taken on the client by a trained and skilled occupational therapist by using a goniometer and a dynamometer regarding any orthopedic and musculoskeletal issues. Standardized testing was administered along with a scorable survey, Likert style, 0–10 rated items. “Mixed method approaches in evaluation are very common, and that means that both quantitative and qualitative data are used, and quantitative and qualitative data collection methods are used in combination” (Newcomer et al. 2015, p. 12).

In summary, the development of the occupational therapy program in a rural

reservation community serving the Navajo native Americans was a fascinating project. It was a great learning experience and challenging. It was a way to connect with the Navajo community members, build rapport with the Navajo tribal leaders and elders and make lasting connections with the administrative stakeholders to help sustain the occupational therapy program. The concentration of collecting the surveys, reviewing them along with the recommendations and conclusions about the program facilitated a strong clinic and empowered more clients to attend their appointments despite the obstacles they face. In addition, distributing and collecting the completed short surveys with the client's feedback was beneficial for this author to assess how the occupational therapy program could improve in the future.

Disseminating the Findings of Program Evaluation Research

In the light of all the information gathered and hosting focus group meetings with the multi-level stakeholders, the ultimate goal was to have an operational and equipped occupational therapy clinic for the Navajo community residents living on the reservation. There were difficulties that were addressed however, given time, more resources, cultural humility, and community outreach involvement, some of these challenges were lessened. The key message and take away for all the recipients was the availability of the occupational therapy clinic and the services provided despite the obstacles. This author communicated to all the recipients and the multi-level stakeholders to continue to educate others about the mission and vision of the occupational therapy program. The face-to-face proved to be the most effective, including hosting quarterly focus group meetings, in-person appointments with the clients and issuance of feedback surveys to the clients

face-to-face on their last day of their occupational therapy treatment session. These communication opportunities provided immediate response from the clients and other essential stakeholders.

CHAPTER SIX – Dissemination Plan

This doctoral project is about the development of an occupational therapy clinic in an outpatient health center located on a rural reservation serving the Navajo Native-American community. The project describes implementation of the author-designed and culturally-relevant occupational therapy clinic-based services, client-based programs, and community outreach activities. Furthermore, this project examines some of the challenges and obstacles present during the implementation of the occupational therapy program. For example, some of the issues are the lack of education and awareness of occupational therapy and the poor accessibility to the outpatient health center the Navajo Native Americans have living on the reservation. The occupational therapist author then presents several innovative approaches to help alleviate some of these problems to include: (1) enhance the awareness and education of the Navajo community residents about occupational therapy, (2) apply effective measures that are culturally-relevant into the occupational therapy interventions, (3) educate the clients about their functional performance deficits, and (4) utilize community-based outreach activities to educate the community residents living on the reservation about the new occupational therapy program. A guiding strategy to accomplish these approaches is by being culturally sensitive, having respect, and taking the time to develop a positive and trusting rapport with the clients and the Navajo community.

Dissemination goals

- Long-Term Goal: The dissemination of the program to both the primary and secondary audiences will hopefully lead to address the long-term need for

implementation of other occupational therapy clinics in rural reservation areas to provide services to the underprivileged and underserved populations.

- Short-Term Goal (1): The dissemination of the new program to the primary audience will lead to the addition and beginning of an occupational therapy clinic and services provided to the clients.
- Short-Term Goal (2): The dissemination of the new program to the secondary audience will help them understand the value of occupational therapy and increase the use of occupational therapy services.
- Short-Term Goal (3): The dissemination of the new occupational therapy clinic to the primary and secondary audiences will lead more clients to come inside the clinic to receive not only occupational therapy services but other healthcare services as well.

The dissemination plan will begin during the first year of the program after the new employee orientation of the occupational therapist is complete. The dissemination plan outlined next provides information on the primary and secondary target audiences, key messages for each of these audiences, influential spokespeople and/or organization, dissemination activities, and expenses for these activities.

Target Audiences:

Primary Target Audience

The primary target audience for the dissemination efforts will be the lead medical providers of the outpatient health center, Indian Health Service stakeholders, and the chief of the rehabilitation department. Dissemination efforts will be directed towards this

primary audience with the hopes that they will recognize the benefits of an occupational therapy clinic added to the outpatient health center.

Key Messages for Primary Target Audience

The implementation of the new occupational therapy clinic within the outpatient health center is beneficial for not only the Navajo community residents and the patients but also key for the other healthcare providers and the outpatient health center. Key messages for the primary target audience include:

- (1) The addition of the occupational therapy helped the outpatient health center expand and evolve. It helped increase patient footprint inside of the outpatient health center, provided more healthcare related services, gained more patient referrals, and provided supplemental services such as a reading library for adults and children and a health and wellness physical activity class.
- (2) Furthermore, the occupational therapy program and a skilled clinician is well-positioned to support, advance, and encourage reconciliation with indigenous populations such as the American Indians. “The professional already promotes collaboration between clients and therapists, and challenges the dominance of the biomedical approach to health care. It is essential to include the perspectives of Indigenous peoples” (White & Beagan, 2020, p. 207).
- (3) Lastly, having an occupational therapy clinic and a skilled occupational therapy clinician leads to more referrals to other important healthcare providers. These referrals and the services can be fulfilled if the need is there. For example, the author referred over 50% of the Navajo clients to the behavioral health

department in order for the clients to receive services such as social work, vocational rehabilitation, and psychotherapy. The behavioral health department was able to fulfill a need for the patients such as employment-seeking, on-the-job-training, disability/SSI documentation, free-housing for Navajo elders, durable medical equipment needs, and financial voucher qualification services. If the patient was not referred to this department, the patient would not have known about it, nor their benefits to receive such services.

Primary Influential Spokesperson

- (1) One of the primary influential spokespersons is the chief of the rehabilitation department. The chief of the rehabilitation department was also the supervisor of the occupational therapist and he noticed the potential and the benefits of adding an occupational therapy program to the rehabilitation department. He was able to advocate to the Indian Health Services senior executives and the sponsors about the new clinic and request a budget for the equipment required to supply the needs of the new clinic.
- (2) During the dissemination efforts of the occupational therapy program, the other primary influential spokespeople are the Navajo community residents and the Navajo Tribal leader. The new program was implemented for them, to help and serve them, to provide healthcare services and address their health/rehab needs and issues. The Navajo Tribal leader has the influence to encourage and inspire the Navajo community residents to come to the outpatient health center and seek medical attention to address their complaints and health issues. Studies show

individuals who identify as American Indians have a significantly lower institutional trust towards medical providers who endorse Westernized approaches (Sidmonds, 2013, p. 500). The Navajo Tribal leader was able to influence the Navajo people to merge their cultural traditions with the Westernized biomedical approaches. Their efforts were not ignored but much appreciated. The author invited the Navajo Tribal leader to create a more open and equitable therapeutic environment to better assess the needs of the patients. The Navajo leader has the ability to interpret, educate and encourage the Navajo community residents to be open and more receptive to the overall medical advice and adhere to treatment recommendations. “With Indigenous clients, communicating through interpreters and pictorial images was noted to be effective when English was not a first language, enhancing client understanding and ability to question and actively participate” (White & Beagan, 2020, p. 204-205).

Dissemination activities, tools/techniques, timing, and responsibilities

Dissemination activities for the primary audiences will consist of educational in-services and presentations provided by this occupational therapist based on the therapist’s educational background and extensive work history and experience. The educational in-service/presentation will include multiple learning objectives, goals for the new occupational therapy clinic, patients of all ages and various diagnosis and injuries are welcome to be seen, and the skilled treatment services that will be (or that can be) provided. For example, the addition of a wheelchair clinic and a reading library for all patients added inside of the new occupational therapy clinic; implementation of the Cycle

Well: Group Indoor Cycling & Healthy Living program, work-hardening program, driving rehab, and orthopedic splinting services provided to patients with hand/wrist injuries.

Furthermore, this occupational therapist will advocate for the profession and the new program by creating written documentation such as a flyer to issue out to the other healthcare providers within the outpatient health center and to the neighboring reservation community hospitals. The flyer will be disseminated electronically, can be printed out and posted throughout the hospital and clinic for patients to see and be aware of. Lastly, one of the most effective dissemination activities of reaching the primary audience is by engaging in numerous community activities. “Research practices with Indigenous populations should be guided by community-based approaches, wherein Indigenous communities determine priorities and outcomes that are of direct benefit to them” (White & Beagan, 2020, p. 207). Engaging in community activities will allow for this occupational therapy practitioner to advocate for the profession, educate the Navajo community residents about the new program, and most importantly, allow for communication and building a rapport with them. Developing trust will assist with overcoming resistance and open-up working partnerships with the Navajo community residents and the Navajo Tribal leader.

Secondary Target Audience

The secondary target audience for the dissemination plan is other Indian Health Service providers, occupational therapy clinicians, professors, and occupational therapy students. Dissemination efforts will target this population with the desire to educate,

advise and share my experience.

Key Messages for Secondary Audience

- (1) American Indians living in rural populations have historically been vulnerable and live in difficult areas that are inadequate to receive healthcare and quick emergent medical attention. Determined efforts to help improve health equity and access for indigenous populations can be achieved through academia, research, collaboration, and community-based approaches. It is pertinent for healthcare providers and especially occupational therapists to fill in a void and provide services to this population and aid in reducing health disparities among the Native Americans. It is noble, fulfilling and a great learning experience. “The people and populations occupational therapy practitioners serve are continually becoming more diverse; Occupational therapy education must be equipped to inculcate habits of cultural awareness, humility, and dexterity in future practitioners” (AJOT, 2020, p. 9).
- (2) The development of the new occupational therapy clinic in an outpatient health center will also provide numerous opportunities for the clinician to integrate cultural humility and awareness when treating the Navajo Native Americans. Working and treating individuals that are not of the same race, ethnicity, and even spiritual background could encourage healthcare providers and occupational therapists to understand the client. Occupational therapists are known for practicing a holistic approach and helping patients engage in meaningful activities to enhance their quality of life. “Education to promote cultural awareness is

expected to improve health outcomes by enhancing providers' knowledge, skills, and attitudes toward clients and by developing their ability to provide culturally responsive and effective services, leading to increased satisfaction among clients" (AJOT, 2020, p. 3).

- (3) Lastly, the occupational therapy program also incorporates client-based intervention strategies and community outreach. Planning and participating in various community-outreach activities is one of the most effective ways to inform the community residents about the new occupational therapy clinic. It helped the therapist to build rapport and trust, teach the community residents about health and wellness education and ultimately can improve health outcomes. Client-based intervention strategies and community outreach events can help the therapist develop wellness programs, practice techniques that are culturally appropriate and relevant for the client and, most of all, gain community support from the residents and tribal leaders. "Interventions that recognize and promote these strength-based approaches and community assets, particularly those that are culturally-centered and grounded in Indigenous theories and ways of knowing, hold the greatest promise for effecting positive change within Native communities" (Jernigan et al., 2018, p. S72).

Primary Influential Spokesperson

- (1) The author's Boston University professors and cohorts will have direct access to numerous occupational therapy students, professors and practitioners; they will be able to share about the new occupational therapy program and how this

occupational therapist developed the clinic despite the challenges.

- (2) The author's colleagues who are not only occupational therapists but are other rehabilitation and healthcare providers. Sharing the experience with coworkers through providing educational presentations or in-services will allow this author to effectively communicate about the different client-based approaches and the intercultural learning that were accomplished.
- (3) Public health officials will also be very influential spokespeople as they can think of and apply how additional medical and healthcare professions can serve other underprivileged populations. The American Indians are one of many underserved; the Alaskan Indians and American citizens that live in poor and disadvantaged areas also need help. Public health officials such as dietitians, oral surgeons, podiatrists, and behavioral health providers are very valuable healthcare specialists that our clinic could have really benefitted from.

Dissemination activities, tools/techniques, timing, and responsibilities

Dissemination activities for the secondary audiences will consist of educational in-services and presentations. The educational in-service/presentation will include the presenter's credentials, learning objectives and goals of the program. Moreover, person-to-person contact will be used as the author can present the new program at various conferences and speaking engagements. For example, the American Occupational Therapy conferences, state occupational therapy conferences and the World Federation of Occupational Therapists congress. These are opportune times to disseminate and inform the secondary audience about the occupational therapy program.

Lastly, another dissemination plan this author will implement is creating an academic course that will educate occupational therapy students and clinicians about providing therapy to disadvantaged populations. The author will develop a curriculum that focuses on diversity, equity, inclusion, cultural awareness, cultural humility, and creating learning activities to help minimize stereotypes, biases' and microaggressions. Table 6.1 provides the budget for the dissemination plan.

Table 6.1

Budget for Dissemination Plan

Audience	1st Year	2nd Year
Primary	Brochures: <i>(stationary is govt funded)</i>	Brochures: <i>(stationary is govt funded)</i>
Secondary	Conference Registrations: \$2500 Travel <i>(to include Flight & Hotel)</i> : \$3500 Printing: \$70 <i>Total: \$6070</i>	Conference Registrations: \$2750 Travel <i>(to include Flight & Hotel)</i> : \$4000 Printing: \$75 <i>Total: \$6825</i>
Total Expense for two years of Dissemination= \$12,895		

Evaluation of the Success of the Dissemination

In order to determine the success of the dissemination efforts on the primary target audience, the occupational therapist will keep a record of the patients seen in the occupational therapy clinic and the services rendered to the patient. The occupational therapist will keep a log of this data by using the appropriate program system approved by Indian Health Services that retains patient's information confidential. Once these facts

have been gathered, it will be delivered to the primary target audience to reveal concrete numbers of how many patients came into the occupational therapy clinic and how many were referred to other healthcare services within the outpatient health center.

In order to determine the success of the dissemination efforts on the secondary audience, surveys and feedback will be collected and used as a criterion. The goal of the dissemination plan for the secondary audience is to educate, advise and encourage occupational therapy students and practitioners about being innovative when working in an area with such low resources and major economic barriers. By receiving their responses and reaction to this information shared, other occupational therapists will find better ways to perform the same task.

Conclusion

The dissemination of the development of an occupational therapy program in a rural reservation serving the Navajo Native Americans will target several pertinent audiences, first, the rehabilitation department head, the lead medical provider of the outpatient health center, and the Indian Health Service stakeholders; secondly, the Navajo Tribal leader, occupational therapy students, professors and practitioners. The goals of the dissemination plan are to develop occupational therapy clinics in other rural reservation communities that will serve American Indians among other disadvantaged populations, increase the need for occupational therapy, educate individuals about occupational therapy and to increase the footprint of the Navajo community residents to come inside the outpatient health center. Dissemination efforts will include written materials, educational in-services and conference presentations in order to reach both the

primary and secondary target audiences. The total expenses for the two-year dissemination plan will be \$12,895.

CHAPTER SEVEN – Funding Plan

Project Description

This doctoral project is about the development of an occupational therapy clinic within an outpatient health center located on a rural reservation serving the Navajo Native-American community. The project describes implementation of the author-designed and culturally-relevant occupational therapy clinic-based services, client-based programs, and community outreach activities. Moreover, this project examines some of the challenges and obstacles this clinician experienced such as the lack of awareness of occupational therapy and the poor accessibility to the outpatient health center the Navajo Native Americans have living on the reservation. The occupational therapist author then presents several innovative approaches to help alleviate some of these problems to include: (1) enhance the awareness and education of the Navajo community residents about occupational therapy; (2) apply effective measures that are culturally-relevant into the occupational therapy interventions, (3) educate the clients about their functional performance deficits, and (4) utilize community-based outreach events to educate the reservation community residents about the new occupational therapy program. A guiding strategy to accomplish these approaches is by being culturally sensitive, having respect, and taking the time to develop trust and a relationship with the client and the Navajo community.

Available Local Resources

The Indian Health Service (IHS) agency is one of the many government agencies where U.S. Public Health Service Commissioned Corps Officers are stationed and work

to help implement and deliver their specialty of services within medical clinics, outpatient health centers and community hospitals. Many of these facilities are located on rural and isolated reservation land where the Native Americans and Alaska Natives live. The goal and mission of these government agencies are to ensure comprehensive and culturally appropriate personal and public health services to the American Indians and Alaska Native communities (IHS, n.d.). Most of the health clinics and the community hospital centers are able to provide physical, mental, social, and some spiritual services. However, some clinics are unfortunately only able to provide basic medical services without subspecialties and specific health services such as occupational therapy, speech therapy, podiatry, dermatology, and respiratory therapy services just to name a few. Prior to 2018, occupational therapy services were not available at an outpatient health clinic on the Navajo reservation in Red Mesa, AZ.

The outpatient health center is funded by the government, so the majority of occupational therapy clinic resources are covered by this funding. However, there are a few available local resources this author used to help furnish the occupational therapy clinic. For instance, several community libraries and donation centers help supply a reading corner this occupational therapist implemented inside of the occupational therapy clinic. Education, (GED) prep, collegiate, adult and children books were collected to help furnish the clinic bookcase. These books were collected for the Navajo clients and provided to them for free. This author also picked up educational toys and games for the clinic's children waiting room.

Another available resource for this author was a seasoned occupational therapist

who was stationed at another local community hospital on the reservation. She served as my mentor, guide, and supported when this therapist needed some clarification and/or educational learning materials to issue to the Navajo clients. She shared with me some health literacy programs and rehabilitation materials that were already translated into the Navajo language. This eased the challenge of communicating with my clients. According to the American Occupational Therapy Association (2020), “Occupational therapy practitioners must learn how to provide culturally appropriate care characterized by awareness, humility, and dexterity in client interactions” (p. 1).

Additionally, this author worked with a Navajo-speaking nutritionist to implement the Cycle Well: Group Indoor Cycling and Healthy Living Program (for more details, see Appendix A, Figure 4.5). This program is a free community-based health and wellness program this author developed to help the Navajo community residents increase their physical activity, prevent obesity, make healthier food choices, improve their mood, and feel supported within a group setting. In order to involve others and make this cycling program more inclusive and culturally-centered, this clinician decided to invite a Navajo speaking nutritionist to provide 15-minute educational sessions about healthy eating and food choices after the cycling class. Access to healthy foods for the Navajo Native Americans is very difficult (Oski, 2010), therefore using an available resource such as the Navajo nutritionist was most beneficial. The nutritionist was best at facilitating and tailoring interventions that were diverse in knowledge, levels of experience in healthy living and eating, language and literacy skills. This author wanted to ensure the addition of the nutritionist would be most beneficial, suitably tailored for the participants and

effectively implemented.

Lastly, as the COVID-19 pandemic initially happened, our outpatient health center was immensely involved in educating the community about social distancing, isolation, hand-hygiene, and mask-wearing. We utilized the Navajo elders at the reservation community center to craft the community residents' face masks to wear. Since the community center had to close, some of the elders were placed inside of the reservation church. They were able to use that space and sew many adult size and pediatric size masks. These masks were delivered to the outpatient health center, along with donations of hand sanitizer; we distributed these items donated to us and issued them out to the Navajo community residents and patients.

Needed Resources/Budget

Initially, the occupational therapy designated clinic space was furnished with office furniture, office supplies, work computer, work phone, work-hardening functional capacity equipment, hydrocollator, and driving simulator. There were some additional supplies and equipment needed in order for the new occupational therapy clinic to run efficiently. This author also needed splinting materials to include various thermoplastics, pre-fabricated splints (resting hand splints and thumb Spica splints), splinting scissors, splinting strapping materials, kinesiotape, lower body adaptive equipment, trigger point massage balls, paraffin wax, and a heat gun. (See Table 7.1 for *Program Expenses*.) This occupational therapist had to provide justification for each item and deliver this detailed information to the rehab chief and the finance department as they made the determination to approve (or decline) my requests. Distribution of the items requested took

approximately 8–16 weeks to deliver. The higher the cost of the item, the longer it took.

There were some items and supplies this therapist bought out-of-pocket to avoid doing the paperwork and easier for delivery if purchased directly. (See Table 7.2 for *Annual Budget* below; USG: U.S. Government and OP: Out-of-Pocket.)

Table 7.1

Program Expenses

ITEM	COST	QUANTITY	JUSTIFICATION	SOURCE
1) Thermoplastic Splinting Material	\$280 each box	3 boxes (6 in each box)	Manipulated to create various (Hand, wrist, finger) splints to protect & support fractured or injured site; used for stabilization, pain relief, & to avoid further injury.	USG
2) Splinting Straps & Adhesives	\$65 per roll	5 rolls of 30' length	Applied to keep the fabricated splint in place on the patient	USG
3) Splint Scissors	\$25-\$100 each	3	Specialized scissors used to cut the thermoplastic material	OP
4) Heat gun	\$180+	1	Make use of to melt and heat thermoplastic splint material; can reach small spots to mold onto the patient	USG
5) Pre-fabricated splints (Resting hand splints, Thumb Spica, elbow splints, ulnar gutter splints, compression gloves, etc.)	Right-10 of each (<i>small, medium, large</i>) Left-10 of each (<i>small, medium, large</i>)	Varies	Used to cut time down during patient treatment session; splints used to stabilize injured site on patient, to assist with pain relief, mobilization, & function.	USG
6) Splint Pan	\$1800+	1	Holds the heated water (up to 180°)	USG
7) Lower Body Adaptive	\$40 each	50 kits	Various adaptive equipment used to	USG

Equipment Kit: (Reacher, Sock Aide, Dressing stick, long shoe horn, long-handled sponge, Toilet aide)			promote and enhance one's independence in lower body dressing tasks.	
8) Trigger Point Massage Balls	\$30 each	3 boxes (12 in each box)	One issued to patient as their Home Exercise Program; used to help release tension & tightness, pain relief, increase blood circulation, open up nerve pathways, improve range of motion, flexibility, & reduce sensitivity.	OP
9) Paraffin Wax Warmer & Wax refill bars	\$300+ Wax Refill bars: \$25 per box <i>(with 4 wax refills in each box)</i>	One Warmer & 5 boxes	Therapeutic use of paraffin bath designed to help relieve stiffness, stimulate circulation, reduce scar tissue and enhance range of motion.	USG
10) Kinesio-tape	\$100each	Pack of 6	Therapeutic tape intended to provide muscle & joint support without limiting range of motion or strength; can be applied on multiple joints & muscles; able to assist with pain relief, reduction of swelling, & aid in muscle movement.	USG
11) Dycem Bulk-roll dispenser	\$120	Two rolls	Non-slip material used to assist patients with weakened hand grip to help secure the safe use of cutlery, kitchen tools & improve safety & independence during cooking/meal-prep tasks.	USG

12) Upper Extremity Anatomical Wall Posters (<i>hand, wrist, shoulder, & elbow</i>)	\$42	One of each	Educational wall posters (hand, wrist, shoulder, & elbow) posted inside of the OT clinic by patient seating to enhance patient's understanding of their body.	OP
13) Long-Handled Mirror	\$25 each	30	Flexible and long mirror devised to allow patients with limited range of motion &/or physical limitations, to self-inspect hard-to-reach, inaccessible areas (skin sores or irritation, Diabetics to check their feet, etc.).	USG
14) Therapy Mat Table	\$1000	1	Elevated platform table, safe & sturdy surface, can hold up to 400lb. patient; can receive therapy treatment services and perform therapeutic exercises & stretches.	USG
15) Lumbar support pillows (<i>Ergonomics</i>)	\$20 each	30	To provide patient back support while on the mat doing therapeutic exercises.	USG
16) Small weights & rehab weight bars	\$960 \$300	One set from 1# to 10#	Can be used for patients of different fitness levels; used to rehab, build strength & recover from injury or deconditioning; patients can use sitting or standing during therapy session.	USG
17) IASTM (<i>Instrument Assistive Soft-tissue Mobilization</i>) Course & IASTM tools	Course: \$1000 Tools: \$1325	1 1 UE tool kit	Specialized stainless-steel beveled instruments used on patients to help release scar tissue, adhesions, & muscle tension spots; promotes range of motion,	USG OP

			flexibility, relief of pain & better function & movement.	
18) Yoga Blocks	\$15-\$20	4	Utilized to help patient support their physical recovery, enhance stretching, balance, & range of motion poses; assists patient with standing tolerance, coordination, movement, & even fall recovery.	OP
19) Scar Massage Tools/Mini-Massager	\$12 each \$30 (Mini-massager)	10 1	Applied on patient post-surgical site after it has healed; minimize scar tissue; restores skin, flattens scar, increase range of motion, reduces tightness, promotes collagen fibers	USG OP
20) Handwriting Skills books	\$16 each	20	Resource book used to help children & adults develop and refine their handwriting skills.	USG

Table 7.2*Budget for First Two Years of Program*

Budget Items	Year One	Year Two
Therapist's Salary (Salary paid by USPHS).	\$55,000–\$65,000 (approx. range depending on training, education, and experience).	\$65,000–\$75,000+ (with \$2500 annual bonus issued after one year due to hazardous duty location; salary increases annually after lengthy work on the rural reservation).
Equipment/Supplies (paid by USG/IHS)	\$15,000	\$20,000
Materials Out-of-Pocket	\$2500	\$2000
Continuing Education Training Courses (to include travel expenses; covered USPHS & Indian Health Services).	\$2000 allowance issued to each therapist to use annually for CEU's.	\$2000 allowance issued to each therapist to use annually for CEU's.
Total:	84,500	99,000

Potential Funding Sources

The new occupational therapy clinic is primarily funded by the U.S. government and the annual budget is set for the rehabilitation department by Indian Health Services. Indian Health Services and other federal agencies provide grants, funding programs and sources for the Navajo Native American families, loan reimbursement programs for federal workers, student intern training programs, and many other benefit programs. The table below lists just a few pertinent funding programs that occupational therapists should be aware of for educational purposes and to provide to the Navajo community residents and clients. (See Table 7.3 for *Funding Options*.)

Table 7.3*Funding Options*

Funding Source:	Description:
Special Diabetes Program	<p>The purpose of this program is to provide diabetes education, treatment and/or prevention activities and services to the American Indian communities. The services are intended at reducing the risk of diabetes in at-risk individuals, providing high-quality care to individuals diagnosed with diabetes and help reduce complications.</p> <p>https://www.federalregister.gov/documents/2022/07/29/2022-16264/special-diabetes-program-for-indians</p>
Domestic Violence Prevention Program	<p>The Domestic Violence Prevention program addresses victims that have been through domestic and sexual abuse, psychological/emotional abuse & neglect, human/sexual trafficking, child neglect, and/or missing or murdered individuals. The Domestic Violence Prevention Program is designed to support the prevention efforts, raise awareness, alleviate negative health outcomes, and provide the victims advocacy services. This program also incorporates addressing the social, spiritual, physical and emotional well-being of the victims through the integration of culturally appropriate practices. “Domestic and sexual violence including child maltreatment are a public health concern among the American Indian/Alaska Native (AI/AN) population. American Indians and Alaska Natives experience high rates of sexual violence according to a 2016 publication from the Department of Justice”.</p> <p>https://www.ihs.gov/dvpi/aboutdvp/</p>
Behavioral Health Integration Initiative	<p>The Behavioral Health Integration Initiative program is devised to improve the physical and mental health of American Indians with behavioral health issues. This program comprises various integrative approaches in the delivery of behavioral health to include: trauma-informed care, nutrition, exercises, social, spiritual, cultural, and primary care services. These approaches are an effort to improve the quality of life for individuals suffering from mental illnesses, substance abuse disorders and from adverse childhood experiences.</p> <p>https://www.federalregister.gov/documents/2021/11/04/2021-24040/behavioral-health-integration-initiative</p>
Substance Abuse Treatment and Suicide	<p>The Substance Abuse Treatment and Suicide Prevention Program is intended to reduce the prevalence of substance abuse and the overall use of addicting & illicit drugs among the American Indian populations. This program was initially implemented in 2009 and continues to build on</p>

Prevention Program	previous years’ research, work, and lessons. It also “promotes the use and development of evidence-based and practice-based models that represent culturally appropriate prevention and treatment approaches to substance use and suicide prevention from a community-driven context”. https://www.federalregister.gov/documents/2021/12/23/2021-27890/substance-abuse-and-suicide-prevention-program-substance-abuse-prevention-treatment-and-aftercare
Healthy Lifestyles in Youth	The purpose of the Healthy Lifestyles in Youth project is to improve the health of the American Indian youth to include health promotion and health education programs. This project addresses various intervention strategies to help reduce the increasing trend of obesity and diabetes among the American Indian youth and youth adults. Some intervention strategies include: physical activities, health, physical, nutrition education, a wide range of fitness programs, teamwork & cooperation, and teach them how to maintain a healthy lifestyle. https://www.federalregister.gov/documents/2022/08/12/2022-17403/healthy-lifestyles-in-youth-project

Conclusion

Fortunately, funding the occupational therapy program is not that difficult because it is mostly covered by the U.S. Government, as the clinic is government property and the healthcare services are designated to serve an underprivileged population. The challenging portion is requesting clinic resources, providing the justification for each, and waiting for approval. The new occupational therapy clinic within the outpatient health center needed to be prepared and operational with the necessary equipment, resources, and instruments that are commonly found in an outpatient occupational therapy clinic. Future occupational therapists working in rural Native American reservation settings should be mindful and experienced with being realistic, resourceful, and creative when it comes to treating the clients and waiting for equipment to arrive. It is recommended tailoring interventions, incorporating culturally-appropriate practices, and finding other

ways to engage the client as necessary given the specific challenges when it comes to funding a new occupational therapy clinic.

CHAPTER EIGHT – Conclusion

The vision of the development of the occupational therapy clinic was to serve the Navajo community residents living on the reservation. This project highlights cultural sensitivity, embracing diversity and innovative practices, expanding occupational therapy services within the community, and working within such limited resources. The implementation of the program elements: (1) Cultural Competence Training; (2) Education (to staff and clients); (3) Community Outreach Events and (4) the Development of Client-based programs were chosen to focus on achieving a sustainable and operational occupational therapy clinic that provided culturally appropriate interventions to the Navajo community residents.

The development of the occupational therapy clinic in a rural reservation community serving the Navajo Native-Americans was truly an exceptional experience for this author. It was challenging and lonesome. However, in the long run, it served to be a great reward as this occupational therapy practitioner stepped out of a comfort zone and the reciprocity of practicing Westernized rehabilitation medicine. Findings suggest that occupational therapy practitioners should continue to embrace utilizing a holistic approach when helping clients engage in meaningful activities to enhance their performance in daily activities they enjoy and to improve their quality of life.

Furthermore, the Navajo community residents benefitted the most from the development of the occupational therapy program. They were able to engage in and receive a specialized rehabilitative service that they were not able to before; they learned about occupational therapy and the importance of participating in meaningful daily life

activities, within their disability or ailment, and engage in life-sustaining, healthy promoting occupations. In addition to the skilled services this occupational therapy clinician provided, a great amount of life-skills education was offered to the clients such as: job-seeking skills, basic computer use, college entry application lessons, diabetes care, and the importance of healthy eating and exercising. The clients and Navajo community residents were also able to partake in various health promotion and wellness programs developed by this occupational therapy practitioner. For example, the Cycle Well and Healthy Living program, the reading library, and the reservation community walk-a-thons, along with the hiking events that were held within the Four Corners area.

Unfortunately, due to the COVID-19 pandemic and the time constraints on this author's assignment on the Navajo reservation, there were some unfilled goals and other projects that were not completed. In addition to the Cycle Well group exercise program, this author also wanted to establish an outdoor gardening program, lunch-time meditation session to include bible study and/or yoga sessions, and a weekly wound care clinic. These programs would have been a great asset to the clinic, not only for the clients, but for the employees of the outpatient health center as well. These programs did not develop because of the strict COVID-19 social-distancing rules that were in place to help prevent or reduce the spread of the virus and to promote safety among the clients, employees, and the community.

Moreover, this project helped this author to set a great example for future occupational therapy practitioners. The author learned serving an underserved and disadvantaged population grants lessons about oneself. There are numerous opportunities

for future occupational therapy practitioners to continue to work in various healthcare settings within an isolated and rural area to help the underserved. This can also open doors for the development of occupational therapy-related academic courses (and/or internships) to educate students about providing occupational therapy services to indigenous populations. The curriculum can focus on cultural diversity, inclusion, cultural awareness/humility, building rapport with key stakeholders, and the importance of community collaboration.

APPENDIX A – Figures and Tables

Figure 4.1:



Figure 4.2



Figure 4.3



Figure 4.4



Figure 4.5*Cycle Well Editorial Newsletter*

NAVAJO COMMUNITY EDITORIAL NEWSLETTER

CYCLEWELL:

GROUP INDOOR CYCLING & HEALTHY LIVING PROGRAM IS CREATED TO HELP THE NAVAJO NATIVE AMERICANS COMBAT OBESITY & OTHER ONGOING GENERATIONAL CHRONIC MEDICAL ILLNESSES.

THIS EDITORIAL NEWSLETTER IS INTENDED FOR THE NAVAJO COMMUNITY MEMBERS WHO LIVE & WORK ON THE RESERVATION. THE PURPOSE OF THIS EDITORIAL NEWSLETTER IS TO ADVOCATE AND INFORM THE NAVAJO COMMUNITY MEMBERS OF A NEW COMMUNITY HEALTH PROMOTION & WELLNESS PROGRAM IN THE AREA.

WHAT IS IT?

Indoor Cycling (also known as Spinning® or Spin® for short) is a **group aerobic exercise** performed on stationary bikes that helps people lose weight, increase their cardio, lower their stress, improve sleep and better their mood. The *Healthy Living* portion of the program is the addition of educational nutrition in-services that will be conducted by a Navajo certified Dietician/Nutritionist. The in-service will only be 15-20 minutes after the Spin® class and during this time, we welcome the participants to take notes, ask questions, and have an open dialogue with one another & the Nutritionist.

The *Cycle Well: Group Indoor Cycling & Healthy Living Program* **is designed for the Navajo Native Americans living and working on the reservation** to help them increase their physical activity, make healthier food choices, lower their chances of depression, promote a healthier lifestyle, and increase engagement through group activity.

WHY SHOULD I PARTICIPATE?

Reason #1: According to recent Native Health News (NHN), in the states of Arizona, North Carolina, and New Mexico, at least 75% of Native American adults are overweight or obese. Concurrent data from the CDC (Center for Disease Control) report over 48% of adults (18 years of age and over) have a BMI (Body Mass Index) of 30 or more and over 41% of adults (18 years of age and over) do not meet the federal physical activity guidelines.

“Several studies suggest that Native American youth have a **higher prevalence of obesity** than the general United States population. Additionally, research suggests that obesity may persist into adulthood and increase the risk of chronic diseases including heart disease, increased blood pressure, and type 2 diabetes, thus making it a major public health concern” (Fila & Smith, p. 1).

Reason #2: Research proves engaging in Cardio/Aerobic Exercise of AT LEAST 30 minutes or more 2–3 days a week will help: (*See Table below*)

WHY SHOULD I PARTICIPATE?		
Physical Benefits	Behavioral/Mental Benefits	Social/Environmental Benefits
<ul style="list-style-type: none"> • Reduce chances of Cardiovascular diseases • Lose weight/fight Obesity • Lower High-blood pressure (Hypertension/HTN) • Burn Calories • Decrease Cholesterol • Help manage Diabetes • Improve Heart-health & Fitness 	<ul style="list-style-type: none"> • Relieve Stress • Improve Sleep • Decrease Sedentary lifestyle • Reduce chances of Depression • Uplift mood • Enhance Mental Strength 	<ul style="list-style-type: none"> • Increase engagement through group activity • Community Empowerment • Social Support • Promote Co-Learning • Build friendships based on an exercise community • Experience different form of exercise • Reduce poor eating habits • Learn healthier food options



WHERE & WHEN?

The Cycle Well: Group Indoor Cycling & Healthy Living Program will take place at the Community Wellness Gym inside of the Outpatient Health Clinic located in Red Mesa, AZ. Cycle Well is also open to the staff/employees of the outpatient health clinic and Children over 12 years old with parental & medical clearance. Cycle Well will take place on Tuesdays & Thursdays from 5-6pm.



How long is the Spin® class?

30-minutes Beginner Level, 45-minutes Intermediate, and a full 60-minutes for Advanced Level. Remember, there will be a brief 15-20 minutes Nutrition In-service presented by a Navajo-speaking Nutritionist/Dietician **AFTER** the Spin® class. During this time, we welcome the participants to take notes, ask questions, and have an open dialogue. The instructor will also encourage you to watch your heart rate (HR) and log your weight at each 4-week interval to assess your progress if losing weight is your goal.

HOW MUCH?

CYCLEWELL IS FREE!!!



So why not come join us and have some fun *Spinning*®. Come to *Cycle Well's* Promotional Event at the Red Mesa Community Center. We will have FREE giveaways of fruit, water, & more! We will also be playing Live Music that is usually played during a Spin® class and the Instructor will even provide a *Spin*® demo!

Advocacy Deliverables: We are trying to raise Community Awareness and provide a fun & safe environment to exercise in a group setting. *Cycle Well* will show you how you can help minimize these health disparities among the Navajo community and people.

Cycle Well will teach you by providing Educational In-services, Presentations, hosting Recruitment Workshops, Spin® demo's during Open House. And we will inform you about *Cycle Well's* latest updates & news via emails, flyers, brochures, radio announcements, and networking with community members.

Advocacy Deliverables continued: The *Cycle Well* program wants to encourage the participants to be part of a community, hold oneself and others accountable; to motivate and inspire others in the class (See Community Empowerment & Engagement) Group exercise has been proven to provide social support, be surrounded by like-minded people and provide an individual more encouragement to push themselves harder vs. if they were to exercise alone.

This editorial newsletter is to inform *the* Navajo community members that live & work on the reservation about the benefits of the implementation of *Cycle Well: Group Indoor Cycling & Healthy Living Program*. *Cycle Well* is a community-based health & wellness program intended to help the participants increase their physical activity, combat obesity, make healthier food choices, uplift their mood, and feel supported in a group setting. Living a physically active lifestyle is critical in the prevention and treatment of many chronic diseases and conditions. The ultimate goal is to promote a healthier lifestyle through cultural awareness and engaging in community group physical activity.

KIDS-DAY CYCLEWELL

We are inviting all Navajo kids 12 & under to participate in a Spin® class dedicated for them. They will be able to exercise in a group with their Friends, practice positive sportsmanship, exercise, improve coordination & balance, and most of all HAVE FUN!!!

RECRUITMENT WORKSHOP

Open House with detailed information & education about Indoor Cycling



One-Hour long Comprehensive Nutritional Educational In-service/**Presentation** hosted by the Navajo- speaking Nutritionist

/Dietician (open dialogue, take notes, ask questions, Free nutritional consultation, thorough diabetes mgmt. seminar, education on how to read food labels & MORE!!!).

Flyers, Billboard Signs and Brochures will be distributed & posted up within the community with full details of Date, Time & Place of these events.

Figure 4.6

Low-Literacy Occupational Therapy Brochure

<p>What is Occupational Therapy?</p> <p><u>Occupational Therapists (OT)</u> are skilled clinicians that help people improve their ability to perform (ADL's) Activities of Daily Living tasks such as bathing, dressing, self-feeding & combing hair; Instrumental ADL's such as <u>Functional Life Skills</u>: cooking, cleaning, shopping, money-mgmt, problem solving, & safety. OT's work with people of all ages who have conditions that are physically, mentally, socially and/or emotionally disabling & limit their day-to-day functions. OT's also play a major role in the rehabilitation & recovery of people who have shoulder, elbow, wrist, hand &/or finger injuries.</p> 	<p>Occupational therapists help people increase their functional independence in their daily life activities while preventing &/or minimizing their disability.</p> <p>OT's build a good relationship with their client; therapy focus is on the client and their goals. OT's can also help change the environment and/or task to fit the client's needs.</p>  <p>OT's work with people who have:</p> <ul style="list-style-type: none"> □ Difficulty with home tasks: cooking, cleaning, laundry, & home safety, shopping □ Work-related injuries □ Stroke recovery and/or people with Head injury □ Amputees &/or people with hand splinting needs □ People suffering from Burns &/or Orthopedic trauma □ Wheelchair management 	<p>Where do Occupational Therapists work?</p> <ul style="list-style-type: none"> □ Hospitals □ Rehabilitation Centers □ Skilled Nursing Facilities □ Schools □ Home Health Services □ Doctor Offices □ Outpatient Health Clinics □ Community-Health Settings <p>How long is Occupational Therapy school?</p> <p>2 years to get a Master's degree AFTER completion of the 4-year undergraduate college. After the coursework, you must complete internships to gain hands-on experience. After completing your internships, you have to pass the National Boards Exam and get a license in the state you would like to practice in.</p> <p>What college classes will I have to take to become an OT?</p> <p><u>Health & Human Sciences</u> such as:</p> <ul style="list-style-type: none"> □ Biology, Chemistry, Kinesiology □ Functional Human Anatomy & Physiology □ Psychology, Sociology, Ethics □ Lifespan & Human Development □ Child Development & Gerontology □ Neuroanatomy □ Medical Terminology
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Case Example:

In the Native-American community, you can become an OT and help people who suffer from carpal tunnel syndrome or arthritis. Ruth, a 76yo elderly Navajo woman, has been a rug weaver & jewelry maker for over 30 years. She comes to your OT clinic for the first time and asks how can she manage her wrist pain in both hands. As an OT, you can educate her on pain, make her comfortable splints and educate her on joint-protection techniques.



4



Benefits:

Being an OT, you are able to work with children, adults, seniors, and in a different setting. OTs help clients to achieve meaningful activities by helping them overcome problems that limit their daily tasks. Among the Native-American population, an OT can be beneficial by promoting, engaging and even creating community wellness programs.

Another benefit as an OT that is important is getting involved with the tribal leaders & reservation chapter houses, you can ask & see what services are most needed among the Navajo people living on the reservation. This is a great way to build a positive relationship, educate the community about your profession and provide OT services.

5

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Figure 4.7

Community Engagement Theory

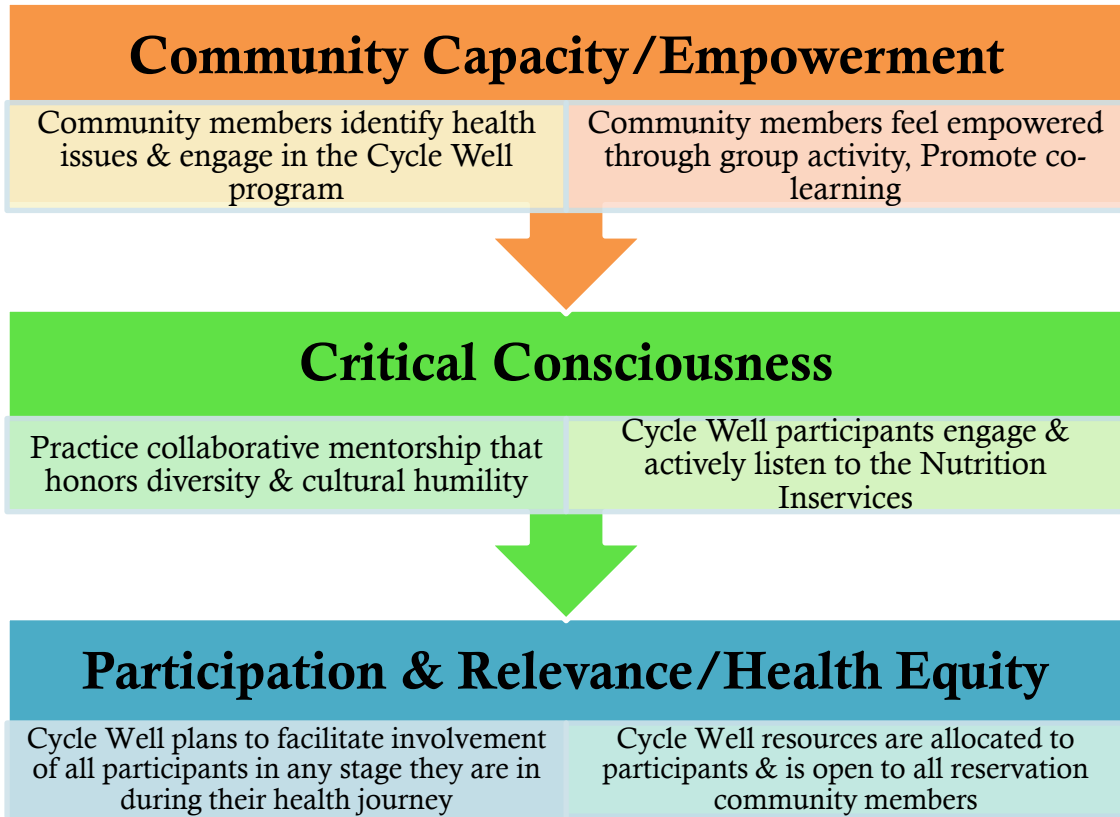


Table 4.1*Predisposing, Enabling and Reinforcing Factors for Cycle Well*

Predisposing	Enabling	Reinforcing
<ul style="list-style-type: none"> • Habitual way of cooking learned from family (i.e., preference of frying vs. baking). • Lack of nutritional education on how to eat healthy and choose healthier food options (i.e. reading nutritional labels, choosing water instead of soda or juice/sugary drinks, choosing salad instead of fries). • Lack of family/friend participation in group exercises. 	<ul style="list-style-type: none"> • Free step tracker to those who have proven progress in losing weight, ↓ Chol, ↓BP, ↓ A1C. • Removal of vending machines in the school & clinic. • Recommencement of the Indoor Cycling Group classes along with the other exercise classes in the community wellness gym. 	<ul style="list-style-type: none"> • Use of flyers, posters, & billboards to educate community members of the variety health promotion & wellness programs on the reservation. • Educational Presentation held at the Navajo Tribal Chapter House to demonstrate the goals of Indoor Group Cycling program to include the nutritional component • New gym or community YMCA offering free membership to families who make less than \$25k. • New grocery store on the reservation with healthier food options and/or revamp the existing store & place healthy food options & produce in the front of the store.

APPENDIX B – Executive Summary

Introduction

This doctoral project, *Developing an Occupational Therapy Program in a Rural Reservation Community Serving the Navajo Native Americans*, describes an occupational therapy program within an outpatient health center located on a rural reservation serving the Navajo Native-American community residents. This program includes: (1) an occupational therapy clinic that provides client-based services and (2) engagement in diverse, inclusive community-outreach activities. Moreover, this project explores some of the problems and issues experienced while implementing the occupational therapy program. These issues included the Navajo Native-Americans' poor accessibility to the outpatient health center, poor client education, public health challenges, limited resources, and client resistance.

In turn, this occupational therapy practitioner provided innovative approaches to help minimize some of these problems including: (1) increasing the awareness and education of the Navajo community residents about the new occupational therapy program; (2) applying effective, culturally-relevant measures and interventions into occupational therapy treatment sessions; (3) educating the clients about their functional performance deficits, and (4) engaging in community-based outreach events. One of the most effective ways to accomplish these goals was by being culturally sensitive, culturally-aware, having respect, and taking the time to develop trust and rapport with community residents. Identifying and educating ourselves about the clients' health disparities and cultures is crucial for the profession to thrive. Occupational therapy

interventions must be inclusive, equitable and beneficial to the client and their families (AOTA, 2020a).

Project Overview

The occupational therapy clinic was delivered in-person by this author, a registered and licensed occupational therapy practitioner. This author was the sole occupational therapist at the outpatient health center to provide face-to-face clinical occupational therapy services to the clients referred. The outpatient health center was located in a remote and isolated area within the southwest region of the United States serving the Navajo Native-Americans.

According to Jernigan et al. (2018), in regards to serving the native communities, implementing multi-level intervention strategies through collaboration with Native community partners and utilizing appropriate Indigenous theories can help guide and develop culturally-centered and contextual appropriate interventions. (p. S67). The new occupational therapy clinic this author developed was an intervention-based program designed to serve the Navajo tribe Native Americans on their reservation land. The clinic provided physical rehabilitation services to address orthopedic injuries, exclusively upper extremity related disorders, along with productive aging, work-hardening/re-integration, wheelchair mobility, driving rehabilitation, and health and wellness. However, the breadth and depth of the new occupational therapy clinic went beyond traditional rehabilitation practices. The key program elements were: (1) Cultural Competence Training; (2) Education (Staff & Clients); (3) Community Outreach; and (4) Development of Client-Based Programs.

In order to develop a positive rapport with the Navajo community members and build trust with the Navajo clients, this author underwent lengthy training and preparation as part of the new employee orientation to help understand the Navajo tribe Native Americans and be able to deliver and ensure good quality patient care services. Cultural competency, education, and being culturally aware is expected to “improve health outcomes by enhancing providers’ knowledge, skills, and attitudes towards the clients and by developing their ability to provide culturally responsive and effective services, leading to increased satisfaction among clients” (AOTA, 2020a, p. 3). In addition, this author received instruction and guidance from the Navajo tribal leader. Doing this allowed this practitioner to give respect to the Navajo community leaders and honor their cultural practices and local voices. In return, the Navajo community residents and clients were more trusting towards this clinician and less resistant to occupational therapy services during treatment sessions. “The objectives of health equity efforts cannot be uniform across Indigenous communities; projects must instead address wide spectrum of local priorities, unique histories, and adapt interventions and research strategies to local cultures and contexts” (Whitesell et al., 2020, p. S6).

One of the most successful strategies this author engaged in to help recruit clients into the new occupational therapy clinic was to provide an educational in-service/presentation to the other healthcare providers working at the outpatient health center. A 30-45-minute in-service was scheduled to inform the staff members about this clinician’s educational background, previous rehab work experience, and the specific skills this clinician can provide to the patients attending the occupational therapy

program. The educational presentation allowed the healthcare providers to ask questions regarding their patient's rehabilitation needs, the common disabilities and injuries they encounter, and how the new occupational therapy clinic can benefit their patients. This was an opportunity for this occupational therapist to educate colleagues about the occupational therapy profession, how health disparities can be reduced among this disadvantaged population, and to work collaboratively with the client and their families to achieve goals.

In addition to receiving patient referrals from the medical providers, this author engaged in many community outreach events to educate the Navajo community residents about the new occupational therapy clinic within the outpatient health center located on their reservation. Connecting with the Navajo people living on the reservation was just as critical as providing skilled occupational therapy services to them. This practitioner enjoyed participating in numerous community outreach activities such as: school health fairs, Senior day at the reservation community center, 5k walk-a-thons, hiking events on the reservation and within the surrounding areas, farmer's markets, and even community yard sales. "Interventions that recognize and promote these strength-based approaches and community assets, particularly those that are culturally-centered and grounded in Indigenous theories and ways of knowing, hold the greatest promise for effecting positive changes within native communities" (Jernigan, 2018, p. S72).

Implementing client-based programs was also a vital key in the development of the new occupational therapy program. In addition to participating in community outreach events, this clinician applied client-based programs such as health and wellness

initiatives, nutritional counseling to include diabetes education, and treatment interventions that aligned and integrated their cultural values and practices. By engaging in multiple community outreach activities and developing new programming, this practitioner ensured that more of the community residents would be informed of the new occupational therapy program and would share the information with their family members. Intervening at a community level offered more connection, interaction, awareness, and understanding of Indigenous populations.

Key Outcomes

The main outcome of this occupational therapy program was to provide occupational therapy services and programming to the Navajo Native Americans community residents. As an occupational therapist, the main goal is to evaluate and treat patients who face multiple physical and/or emotional barriers that hinder them from participating in their daily life activities and occupational roles. “For meaningful client-centered occupational therapy practice, it is essential to strive continually for an understanding of the influences of culture on identity and behaviors” (AOTA, 2020a, p. 3). For the most part, the clients were receptive, opened up trust and were willing to learn from this provider once a client-holistic approach was applied. Utilizing a client-holistic approach helped to build rapport with the client, implement culturally-appropriate treatment sessions, and promote health educational opportunities to help minimize their health disparities and occupational performance deficits.

An additional outcome from the interventions delivered to the clients was the increase in referrals and attendance. This was accomplished by educating the clients of

occupational therapy services about the benefits of engaging in their treatment sessions, and by educating the community about the program and its value. Continuous education about the program was also accomplished by attending community health seminars, presenting at the Senior-Day community center and the local reservation high schools during their college and career exhibitions.

Funding Source

The new occupational therapy clinic was primarily funded by the U.S. government and the annual budget was set for the rehabilitation department by Indian Health Services. Initially, the occupational therapy designated clinic space was only furnished with office furniture, office supplies, work computer, work phone, work-hardening functional capacity equipment, hydrocollator, and a driving simulator. The budget set for obtaining additional supplies and equipment in order to run the clinic efficiently were: first year at \$84,500 and year two at \$99,000. This budget included equipment, supplies, therapist salary, materials purchased out-of-pocket, and continuing education costs (to include travel expenses and registration).

Recommendations

Future occupational therapists working in rural Native American reservation settings should be mindful and experienced with being realistic, resourceful, and creative when it comes to treating Indigenous populations. Patience is another important attribute, as there be delays in equipment arrivals due to the limited resources, lengthy time for approval, and distance to transport the equipment. It is recommended tailoring interventions, incorporating culturally-appropriate practices, and finding other ways to

engage the client as necessary given the specific challenges when it comes to funding a new occupational therapy clinic. Another strong recommendation for healthcare providers working with Indigenous populations, specifically in rural settings, is to be open and positive, enjoy the time, ask for help, seek a mentor, and be respectful of the population's cultural values and practices. "It is essential to strive continually for an understanding of the influence of culture on identity and behaviors" (AOTA, 2020, p. 3).

Conclusion

In summary, the new occupational therapy clinic provided skilled and multi-level intervention services to the Navajo Native Americans living on the reservation. There were and may continue to be some challenges and obstacles to overcome but this occupational therapy practitioner developed a foundational blueprint for other occupational therapists and other healthcare workers to follow. Identifying and educating ourselves about the population's cultural values and traditions, being inclusive, and culturally aware is the true beginning. The efforts of this occupational therapist and the approaches utilized embraced prioritizing the community member voices, applying evidence-based research, and optimizing high levels of community engagement

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APPENDIX C – Fact Sheet

Program Description:

This doctoral project describes an occupational therapy program developed by this author within an outpatient health center located on a rural reservation serving the Navajo Native-American community residents.

This was the outpatient health center’s first occupational therapy clinic. Occupational therapy services included innovative, diverse, inclusive, culturally appropriate, and client-based interventions, and community outreach activities.

Problems:

Obstacles and challenges during the development of the occupational therapy clinic included:

Isolated Rural Location	Cultural Differences	Lack of Healthcare Services
<ul style="list-style-type: none"> •Indigenous population •Poor underserved communities •Long distance to travel to a major trauma/emergency medical facility •Lack of public transportation to the outpatient health center (City buses do not come onto the reservation & there is no rideshare) 	<ul style="list-style-type: none"> •Client resistance •Westernized vs. Traditional medicine practices •Low-literacy level of clients •Little or no awareness of occupational therapy within the reservation population 	<ul style="list-style-type: none"> •Shortage of medical/healthcare services •Limited Resources •Shortage of Healthcare Providers •High turnover & difficulty to retain clinicians •Ineffectual sustainment of beneficial healthcare programs

Theory/Evidence-Base Foundation:

- **Health Belief Model:** Conceptual framework used in health behavior research & interventions; applied to help individuals change & maintain health-related behaviors; can be applied at the individual & community level.
- **Community-Based Participatory Research (CBPR):** Conceptual model with emphasis on improving health outcomes among ethnic, culturally diverse, underserved & vulnerable populations; CBPR highlights collaboration, communication, implementation of innovative approaches and evidence-based interventions that lead to health policy changes; CBPR also recognizes community partnerships/involvement, community strength, shared leadership, and resources.

Proposed Solution:

These four program elements were chosen to focus on sustainable and culturally appropriate approaches to achieve the goal of a successfully operating occupational therapy clinic serving the Navajo Native Americans living in a rural reservation community:

1. **Cultural Competence Training**
2. **Education (Staff & Clients)**
3. **Community Outreach**
4. **Development of Client-Based Programs**

**Impact on Future Occupational Therapy Practice:**

- The development of the new occupational therapy clinic provides numerous opportunities for the clinician to incorporate culturally-based activities when providing services for the Navajo community residents. Occupational therapy practitioners are known for utilizing a holistic approach when helping clients engage in meaningful activities to enhance their quality of life (AOTA, 2020).
- Sets an example for future occupational therapy practitioners who want to be and/or who are located in a rural area serving an underserved community; provides ideas when working with low resources and limited funds.
- Opportunity for the occupational therapy practitioner to create an academic course (and/or internship) to educate students about providing occupational therapy services to disadvantaged populations; the curriculum can focus on diversity, inclusion, cultural sensitivity, and the importance of community collaboration.

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CURRICULUM VITAE

