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An Occupation-Based Approach To Chronic Pain In Rural Alaska

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AN OCCUPATION-BASED APPROACH TO CHRONIC PAIN IN RURAL ALASKA

by

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APPROVAL

This scholarly project, submitted by Emma Lehman in partial fulfillment of the requirement for the Degree of Occupational Therapy Doctorate from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

Dr. Sclinda Janssen, Faculty Advisor

April 6, 2023

Date

PERMISSION

Title: An Occupation-based Approach to Chronic Pain in Rural Alaska

Department: Occupational Therapy

Degree: Occupational Therapy Doctorate

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ABSTRACT

Title: An Occupation-based Approach to Chronic Pain in Rural Alaska

Background: Adults with chronic pain living in rural communities experience occupational deprivation due to a lack of access to healthcare resources. While chronic pain is multifaceted and treated by multiple professions, occupational therapy (OT) can have a significant role in treating adults experiencing chronic pain with occupation-based interventions to improve their daily complications (Lagueux et al., 2018).

The role of OT with chronic pain management is reflected in the evidence-based program entitled *Lifestyle Redesign*®, which offers effective strategies to improve quality of life, self-efficacy, and daily functioning for those who experience chronic pain (Uyeshiro Simon & Collins, 2017). However, there are limited resources by which to implement similar programs with people in *rural* communities who have chronic pain.

Purpose: The purpose of this scholarly project is to advocate for the profession of occupational therapy within rural Alaska areas as well as develop an evidence-based, model-driven, culturally relevant resource guide for OT practitioners. The guide entitled *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska,* provides occupation-based interventions for chronic pain management with clients in rural communities and will improve interprofessional collaboration in a culturally relevant manner that supports the functional abilities in people who have chronic pain.

Methodology: A thorough literature review was completed through the following databases: PubMed, CINAHL, SAGE, EBSCO Host, Google Scholar, the Centers for Disease Control and Prevention (CDC), the American Journal of Occupational Therapy (AJOT), and the American Occupational Therapy Association (AOTA). To guide development of product design and intervention ideas, the Ecology of Human Performance (EHP) model was used (Dunn, 2017).

Conclusion: The *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska* was created to fill a gap in the healthcare field for adults who experience chronic pain and their lack of access to resources in rural Alaska communities. The projected outcome of the product is an increased presence of OT in rural Alaska, greater interprofessional collaboration, and an increase in occupational engagement and quality of life for adults experiencing chronic pain.

CHAPTER I

INTRODUCTION

The number of adults in the United States who experience chronic pain exceeds 100 million, with reported pain levels in rural areas being greater than that of urban areas (Kapoor & Thorn, 2014; Uyeshiro Simon & Collins, 2017; Zelaya et al., 2019). Chronic pain impacts engagement in valued occupations leading to decreased health and poorer quality of life (Tom et al., 2022; Zelaya et al., 2019). Occupational therapy (OT) practitioners are valuable members of interprofessional teams and play a key role in helping individuals manage their chronic pain (Khodneva et al., 2020; Lagueux et al., 2018; Tom et al., 2022; Uyeshiro Simon & Collins, 2017). There is a need for OT practitioners to be more involved on chronic pain management teams, especially in rural areas. The purpose of this scholarly project is to develop an evidence-based, model-driven, culturally relevant resource guide for OT practitioners that provides occupation-based strategies for chronic pain management with clients in rural communities. In addition, this guide will improve interprofessional collaboration for interventions that support functional abilities in people who have chronic pain.

Background

An initial need to address occupational deprivation among people with chronic pain arose from the literature. Adults with chronic pain living in rural communities experience occupational deprivation due to lack of access to healthcare resources. While chronic pain is multifaceted and treated by multiple professions, occupational therapy can have a significant

role in treating chronic pain with occupation-based interventions to improve the daily occupational complications (Lagueux et al., 2018).

Chronic pain impacts 20.4% of adults in the United States and 7.4% of adults report high-impact chronic pain that frequently limits their life activities (Zelaya et al., 2019). Chronic pain limits engagement in multiple occupations such as: sleep, self-care (Uyeshiro Simon & Collins, 2017), work, and leisure (Dahlhamer et al., 2018).

People with chronic pain living in rural areas are even more compromised because of the low retention rates of healthcare workers in these areas (Roots et al., 2014). Despite the Centers for Disease Control and Prevention (CDC) recommendations to use nonopioid treatment methods, such as self-care training, cognitive-behavioral therapy, and patient education, prescription pain medications are typically the only intervention offered to patients (Dahlhamer et al., 2018).

The role of OT with chronic pain management is reflected in the evidence-based program entitled *Lifestyle Redesign*®, which offers effective strategies to improve quality of life, self-efficacy, and client functioning for those who experience chronic pain (Uyeshiro Simon & Collins, 2017). However, there are limited resources by which to implement similar programs with people in *rural* communities who have chronic pain.

Methods

To create this guide, a thorough review of literature and needs analysis was completed on the impact of chronic pain on occupational performance, the needs of a rural community, how to assess chronic pain, and the importance of interprofessional collaboration. The model selected to guide the search was ecology of human performance (EHP) due to the interprofessional nature (Dunn, 2017). The findings and model were then used to create the

product for this scholarly project, which is entitled *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska.*

Product

The guide is a tool for OT practitioners to utilize inside and outside of a clinic setting as they orient themselves to rural Alaska. It includes four main sections about interprofessional networking, assessments for chronic pain, Alaska cultural considerations, and occupation-based intervention ideas. The interprofessional section introduces several different disciplines of whom OT practitioners could work alongside or network. The next section outlines different evaluation and assessment tools that can be used in an interprofessional manner that target the concepts of the person, context and task. The cultural section describes concepts that are unique to Alaska and play a key role in creating client-centered interventions for adults with chronic pain. The final section describes the importance of occupation-based interventions using evidence-based approaches.

The guide is structured like a booklet with the four main sections listed above with four handouts with more specific evidence-based intervention ideas for the tasks most impacted by chronic pain found in appendix A. The following chapters II through V contain a review of literature, methodology for developing the product, description of the product, and a summary.

CHAPTER II

LITERATURE REVIEW

Adults with chronic pain living in rural communities experience occupational deprivation due to lack of access to healthcare resources. Chronic pain among those in rural areas compromises engagement in meaningful activities because of the multitude of complications such as opioid dependence (Zelaya et al., 2019), anxiety and depression (Tom et al., 2022), and isolation from healthcare resources (Lagueux et al., 2018). This literature review analyzed the occupational problems and evidence-based interventions associated with chronic pain.

Background

Chronic pain impacts 20.4% of adults in the United States and 7.4% of adults report high-impact chronic pain frequently limits their life activities (Zelaya et al., 2019). Chronic pain and high-impact chronic pain are the most common reason adults seek medical care (Zelaya et al., 2019). People in rural communities are at an increased risk for experiencing and reporting chronic pain as they report more severe pain levels and have more limited access than those living in urban communities (Kapoor & Thorn, 2014).

Terms and Definitions

Chronic pain is defined as having pain most days or every day for the past three to six months or longer (Dahlhamer et al., 2018; Treede et al., 2015). High-impact chronic pain is

defined as having a significant limitation to life or work activities most or every day (Dahlhamer et al., 2018). Quality of life is defined by the World Health Organization (WHO) as an individual's perception of their position in life regarding the culture and value systems they hold, and in relation to their goals, expectations, standards, and concerns (Tom et al., 2022). Rafferty et al. (2021) defined a rural community as an area with a population of less than or equal to 250 people per square mile while an urban area was defined as having a population density of more than 750 people per square mile.

Theory

The Ecology of Human Performance (EHP) is the driving model used for this scholarly project due to the complexity of chronic pain and the need for an interdisciplinary approach when treating chronic pain (Dunn, 2017). The interprofessional nature of EHP allows for greater collaboration and understanding between disciplines (Dunn, 2017; Lagueux et al., 2018).

Occupational Problems Associated with Chronic Pain

Chronic pain and high-impact chronic pain are associated with opioid dependence, poor mental health, and decreased quality of life (Zelaya et al., 2019). Chronic pain not only affects the physical body, but also creates a mental toll leading to higher rates of anxiety and depression causing an endless cycle of fear and pain (Tom et al., 2022). Adults with chronic pain living in rural communities experience occupational deprivation due to lack of access to healthcare resources.

Impact of Chronic Pain on Occupational Performance

Chronic pain limits engagement in multiple occupations such as: sleep, self-care (Uyeshiro Simon & Collins, 2017), work, and leisure (Dahlhamer et al., 2018; Tom et al., 2022).

The impact of chronic pain on these areas of occupation lead to poorer productivity and quality of life (Tom et al., 2022). Furthermore, Schmid et al. (2019) found that household management tasks such as cooking, gardening, laundry, and cleaning were the most challenging for individuals experiencing chronic pain. Individuals who struggle with mental health concerns such as anxiety, depression or medically diagnosed comorbidities are more likely to be prescribed stronger opioids such as painkillers which creates a greater need for psychosocial interventions and non-opioid interventions, especially in rural communities where access to resources and non-opioid treatments are more sparse (Kapoor & Thorn, 2014; Tom et al., 2022).

Rural Community Needs and Cultural Gaps

People in rural communities are at an increased risk for experiencing and reporting chronic pain as they report more severe pain levels and have more limited access than those living in urban communities (Kapoor & Thorn., 2014; Zelaya et al., 2019). Occupational therapists have a unique skill set to treat chronic pain while analyzing the whole person in a culturally competent, accessible, and integrative manner (Murphy et al., 2017). Occupational therapy is not as common in rural communities than in urban but is highly sought after and necessary to improve healthcare services and the quality of life for the community (Murphy et al., 2017).

Rural Cultural Gaps

In rural communities, specifically within Alaskan Native and American Indian populations, there tends to be a misalignment between cultural values and traditional service delivery methods (Murphy et al., 2017; Wexler, 2010). According to the State of Alaska Department of Commerce, Community and Economic Development Division of Community and Regional Affairs (2021), Alaska is considered one of the most remote and rural places in the

United States. To improve access to occupational therapy services, professionals must advocate and promote their role in primary and preventative settings (Murphy et al., 2017).

The literature available on the Alaskan Native population is limited, but the findings from Wexler (2010) align with insight provided by Comstock (2022) and therefore information from Wexler (2010) is recognized as valuable information despite being considered outdated. According to the two-year ethnographic study done by Wexler (2010), Alaskan Natives value their health, but it may not seem like a priority if they do not first have a relationship with you. They strongly value personal autonomy, social support, and cultural status (Wexler, 2010).

Importance of Culturally Relevant Care

It is crucial to understand how a cultural group understands health and social concerns to provide meaningful programming. While occupational therapy places a high importance on providing culturally relevant care, the uniqueness of different cultures is often ignored and misunderstood, and western culture is still pushed on native populations (Wexler, 2010; White & Beagan, 2020). Wexler (2010) found that the Alaskan Native culture places high value in their elders and build on existing social structures when seeking guidance and wisdom, rather than looking to those with "authority" or education labels. Wexler (2010) suggested that directing Native people to work toward a collective aim without specifying how to do it will promote personal autonomy. Occupational therapy services can assist Alaska Native people to achieve independence in tasks they find most meaningful by creating a collective space that allows for people to contribute in ways they find most culturally appropriate. Alaska Native people have higher rates of suicide, substance abuse and unintentional injuries compared to non-Natives in the United States thus highlighting the great need for occupational therapy within these communities (Wexler, 2010; Wexler et al., 2015).

Healthcare in Rural Communities

In the healthcare field, rural practice is considered a specialty (Comstock, 2022; Roots et al., 2014). Professionals must utilize their entire scope of practice and view the person through a more focused lens of context (Roots et al., 2014). People with chronic pain living in rural areas are even more compromised because of the low retention rates of healthcare workers in these areas (Roots et al., 2014). Rural occupational therapists must adopt a generalist approach due to the wide range of clientele and diagnoses they may treat (Shin et al., 2022). The pressure to adopt a generalist approach coupled with a lack of autonomy also puts rural healthcare workers at a greater risk for burnout causing a negative impact on the community and the OT profession (Shin et al., 2022).

Assessment of Pain

Describing and assessing pain can be challenging due to the convolutions of the pain experience. While each individual experiences pain differently, it is still important that healthcare professionals choose appropriate assessments that measure a person's pain severity levels and impact on daily functioning. Often, these assessments are done in a pre-test, post-test format to measure the effectiveness of chronic pain management (Uyeshiro Simon & Collins, 2017).

Interprofessional Assessment of Pain

Multiple researchers asserted that interprofessional, or interdisciplinary, assessment approaches are most effective (Gatchel et al., 2014; Seaton et al., 2021; Uyeshiro Simon & Collins, 2017). The complexity of the pain experience makes it difficult to measure and calls for a comprehensive interdisciplinary approach where professionals collaborate at one facility and are in constant communication to coordinate services (Gatchel et al., 2014).

Interdisciplinary programs are difficult to define and develop but once established, they can greatly enhance the effectiveness of chronic pain treatment (Gatchel et al., 2014; Seaton et al., 2021). Communication in a brief, informal manner is essential for interprofessional collaboration and a greater educational effort to deliver more specific information about interprofessional collaboration should be taken to better understand other professionals' scopes of practice, roles, and responsibilities (Seaton et al., 2021).

Assessment Tools

Informal assessments such as questionnaires and structured interviews coupled with formal assessments such as those listed in Table 1, are valuable ways to assess pain in an interprofessional manner (Du et al., 2011; Kapoor & Thorn, 2014). Researchers found that the COPM was most useful in measuring perceived performance and satisfaction over time in a pre- and post-test format (Lagueux et al., 2018; Schmid et al., 2019; Uyeshiro Simon & Collins, 2017).

Table 1

Formal Assessments to Effectively Measure Pain

Focus Area	Tool	Resource
Occupational Profile	Canadian Occupational Performance Measure (COPM)	Law et al. (2014)
	Occupational Performance History Interview (OPHI-II)	Kielhofner (2004)
	Assessment of Life Habits Questionnaire (LIFE-H)	Noreau (2004)
Occupational Performance	Assessment of Pain and Occupational Performance (POP)	Perneros & Tropp (2009)
	Brief Pain Inventory (BPI)	Cleeland (2009)
	Functional Independence Measure (FIM)	Granger & Hamilton (1986)
	Milliken Activities of Daily Living Scale (MAS)	Seaton et al. (2005)
	Assessment of Motor and Process Skills (AMPS)	Fisher (1995)
	Impact on Participation and Autonomy (IPA)	Cardol & De Jong (2002)
	Pain and Functional Performance Assessment (PFPA)	Fisher et al. (2006)
	Pain Catastrophizing Scale (PCS)	Sullivan et al. (1995)

Visual Analogue Scale (VAS)/Visual Numeric Scale (VNS)

Chronic Pain Management Interventions

Despite the Centers for Disease Control and Prevention (CDC) recommendations to use nonopioid treatment methods, such as self-care training, cognitive-behavioral therapy (Ellis, 1992), and patient education, prescription pain medications are typically the only intervention offered to patients (Dahlhamer et al., 2018). Cognitive-behavioral therapy methods were found effective in increasing pain self-efficacy, decreasing pain intensity, and decreasing functional limitations (Khodneva et al., 2020). Chronic pain management should focus on self-efficacy building, problem solving, resource utilization, decision making, and the overall ability to self-manage the chronic pain symptoms, treatment, and lifestyle changes (Du et al., 2011; Uyeshiro Simon & Collins, 2017). Self-management is a relatively safe intervention that focuses on health promotion and should include relaxation, exercise, rational use of medication and proper physician-patient communication (Du et al., 2011).

Interventions Supported by EHP

Interventions found to be effective in improving the quality of life in individuals experiencing chronic pain focus on the breakdown of each portion of EHP: person, context, and task. When focused on the person, occupational therapists can promote body mechanics, posture and positioning, exercise in the form of yoga, Pilates, stretching, walking, or fitness programs, energy conservation, joint-sparing techniques, relaxation training, and stress management (Lagueux et al., 2018; Tom et al., 2022). When focused on the context, occupational therapists are experts in ergonomics and making environmental modifications (Lagueux et al., 2018). When focused on the task, attention to pacing or grading an activity, or adapting the task is another niche of occupational therapists (Lagueux et al., 2018; Tom et al., 2022).

Interprofessional Management of Chronic Pain

Multimodal, interdisciplinary interventions are recommended over single-modal treatments for chronic pain (Rafferty et al., 2021). An interdisciplinary/interprofessional approach incorporates physical treatment with behavioral, cognitive, emotional, and environmental interventions (Gatchel et al., 2014; Rafferty et al., 2021). While chronic pain is multifaceted and treated by multiple professions, occupational therapy can have a significant role in treating chronic pain with occupation-based interventions to improve daily occupational complications and quality of life (Lagueux et al., 2018). Occupational therapists can have a role within an interprofessional team to utilize these interventions as they can be certified and trained in motivational interviewing, cognitive behavioral techniques and using therapeutic use of self to encourage and provide support to clients/patients (Khodneva et al., 2020; Tom et al., 2022; Uyeshiro Simon & Collins, 2017).

Occupational Therapy and Chronic Pain Management

The role of occupational therapy with chronic pain management is most reflected in the evidence-based program entitled *Lifestyle Redesign*, which offers effective strategies to improve quality of life, self-efficacy and client functioning for those who experience chronic pain (Uyeshiro Simon & Collins, 2017). The *Lifestyle Redesign* program emphasizes that incorporating meaningful activities into the management of chronic pain is an effective form of treatment and occupational therapists should be familiar with the *Lifestyle Redesign* modules (Uyeshiro Simon & Collins, 2017). Functional engagement, lifestyle and routine disruption, difficulty with behavior change, physical disabilities and psychosocial struggles should all be a focus during interventions (Uyeshiro Simon & Collins, 2017). While this program has been

shown to be effective, there are still limited resources by which to implement similar programs with people in *rural* communities who have chronic pain.

Rural Intervention Barriers

Resources in rural communities are sparse, making chronic pain management more difficult compared to urban areas. Rafferty et al. (2021) found that residents in suburban and rural communities were significantly less likely to report nonmedication treatments for their chronic pain than those in urban areas. Rural residents are also less likely to use three or more different treatment types (Rafferty et al., 2021). Several researchers found that a way to overcome the barrier of lack of resources within a rural community is by integrating oneself into the community and creating personal connections and relationships (Roots et al., 2014; Shin et al., 2022; Wexler, 2010).

Discussion

The evidence for management of chronic pain for adults in rural areas is limited. Non-opioid treatment options should be considered before prescribing excess amounts of medications (Dahlhamer et al., 2018; Zelaya et al., 2019). Occupational therapists are experts in enabling occupation and adapting how individuals with chronic pain can perform and engage in their daily tasks (Lagueux et al., 2018; Tom et al., 2022). Using occupation as a means and as an end can be an effective form of treatment for those who experience chronic pain (Lagueux et al., 2018; Uyeshiro Simon & Collins, 2017). Due to the nature of chronic pain, focus may have to shift from decreasing pain severity to improvement of functional engagement (Uyeshiro Simon & Collins, 2017). The best intervention options for management of chronic pain in rural areas are client-driven and provide personal value and meaning (Lagueux et al., 2018; Murphy et al., 2017; Uyeshiro Simon & Collins, 2017; Wexler, 2010; White & Beagan, 2020). This is

accomplished through building rapport, personal connection, and respect for cultural differences (Murphy et al., 2017; Wexler, 2010; White & Beagan, 2020).

Conclusion

There is a need for occupational therapists to work within an interprofessional team to address chronic pain among people who live in rural areas. Healthcare professionals should work together to assess how chronic pain impacts occupational performance by using the COPM to measure personal satisfaction and performance over time (Lagueux et al., 2018; Schmid et al., 2019; Uyeshiro Simon & Collins, 2017). Interventions to treat chronic pain should be client-centered, evidence-based, and provide meaning to the individual (Lagueux et al., 2018; Murphy et al., 2017; Uyeshiro Simon & Collins, 2017; Wexler, 2010; White & Beagan, 2020). The implication of this scholarly project is to determine the most effective occupational therapy interventions for chronic pain management in a rural, interprofessional setting. The methods taken to accomplish this goal are explained in the following chapter.

CHAPTER III

METHODS

One of the most common reasons people seek medical attention is because of chronic pain (Dahlhamer et al., 2018). Millions of people in the United States struggle with chronic pain and its associated limiting factors. Chronic pain is often treated within the healthcare system through the use of opioids, which after long term use can lead to opioid dependence and decreased engagement in meaningful functional tasks. Occupational therapy (OT) practitioners can aid in facilitating engagement in meaningful activities thus improving quality of life and overall health. However, there is a barrier to receiving OT services when located in a rural area due to the general lack of access to healthcare resources. Several authors found value in occupational therapy practitioners being members of the interprofessional chronic pain management team (Gatchel et al., 2014; Seaton et al., 2021; Uyeshiro Simon & Collins, 2017). This posed a need for a *guide* directing OT practitioners in rural areas on how to engage with other professionals by providing evidence-and-occupation-based, client-centered interventions in a culturally relevant manner.

Application of Literature

Evidence was searched using electronic and professional databases. PubMed, CINAHL, SAGE, EBSCO Host, Google Scholar, the Centers for Disease Control and Prevention (CDC), the American Journal of Occupational Therapy (AJOT), and the American Occupational Therapy Association (AOTA) were utilized when looking for credible evidence within the last 10 years. Search terms such as “chronic pain,” “integrative therapy,” “holistic,” “natural,”

"interprofessional," "rural healthcare," and "occupational therapy" were used. Systematic reviews, scoping reviews, meta-analyses, literature reviews and integrative reviews were included. Exclusion criteria involved any conference presentations, any studies involving individuals under the age of 18, and anything published more than 10 years ago unless a rationale could be provided.

Nineteen research articles, two practice guidelines/recommendations from government sources or organizations, and one expert in the field interview were collected, analyzed, and annotated. The evidence was configured into a matrix and examined for any overlap. The literature was reviewed and organized into four different categories to structure the formation of this scholarly project; interprofessional collaboration, use of assessments to measure chronic pain, cultural differences in rural settings, and occupation-based interventions were the identified categories of overlap.

Research Questions

The following are questions were formulated during the literature review process. They are based on the components of the occupation-based model of the ecology of human performance (EHP; Dunn, 2017).

- Person:
    - Who is at risk for experiencing chronic pain?
    - How does chronic pain interfere with a person's ability to function throughout the day?
    - How is chronic pain defined?
- Context:
    - How does interprofessional communication work in rural settings?

    - What is the stigma in a rural community on seeking healthcare for chronic pain?
    - What are the perspectives of occupational therapy in rural Alaska?
- Tasks:
    - What tasks (occupations) are impacted by chronic pain?
    - What is occupational therapy's role in management of chronic pain?
    - Which assessments/evaluations/outcome measures are most suitable for occupational therapists to assess/measure pain?
    - What interventions are typically utilized when managing chronic pain?

These research questions were a foundation for which evidence was searched, gathered, analyzed, and synthesized when creating the framework for this scholarly project.

Interprofessional Collaboration

The guide created for this scholarly project begins with a section addressing interprofessional collaboration. Because most rural clinics addressing chronic pain only have one to two professionals on the team, it was important that the guide include a description of all the potential team members. This was presented in a figure in the product so readers could quickly identify and initiate partnerships with other professionals. This was placed at the beginning of the guide in section I because it is important to establish partnerships first when developing an interprofessional approach.

There is a need for occupational therapists on the chronic pain management team. The professionals chosen to be included in the product were selected from a list of providers with an established network connection with an outpatient physical therapy clinic. Local providers were then called, emailed or met with in person to discuss their relationship with occupational therapy and importance of an interprofessional team to manage chronic pain. Often, contextual, or

cultural barriers to rural Alaska were identified through these conversations as limitations to forming productive interprofessional care teams, thus preventing people from achieving relief from pain and reaching their full functional potential.

Chronic Pain Assessments

A crucial part of the occupational therapy process is evaluation; therefore, section II of the guide presents processes for evaluation and lists specific assessment tools used to analyze occupational performance and chronic pain. During the evaluation, the therapist gathers information from the client on what is limiting their engagement in meaningful tasks and how much pain they are experiencing. This can be difficult when pain is so multifaceted. Most people have difficulty describing the type of pain they are experiencing, so using an assessment to get an accurate description is necessary. The assessments chosen to be included in this guide were decided after analyzing all the assessments already used at the outpatient physical therapy site, then comparing those to what the literature highlighted as the best assessments to use when working with adults experiencing chronic pain. I also observed client sessions and evaluations with physical therapists at the clinic and noticed several gaps within the evaluation process. A major gap was recognized within the gathering of the occupational profile and functional performance measures. The assessments included in the guide help give practitioners insight into being able to understand the whole person, their pain experience, and how their pain affects their daily tasks.

Cultural Considerations

Section III of the guide includes culturally appropriate care recommendations for rural Alaska because several authors noticed that pain levels were often reported as higher in rural areas than in urban areas (Kapoor & Thorn, 2014; Tom et al., 2022; Zelaya et al., 2019). This

highlighted the importance of understanding the cultural aspects related to chronic pain in a rural area. This scholarly project was completed in the rural area of Ketchikan, Alaska. Alaska has a wide variety of people, climates, and styles of living and is very different compared to the "lower 48" states, therefore the cultural aspects of the area need to be recognized. The resource guide describes the unique characteristics of the context of Alaska and the lifestyle differences required of the people who live there. Alaska is also home to the highest percentage of Native Americans in the United States, therefore possesses a rich native cultural influence in most, if not all, of its communities. Alaskan's take a lot of pride in who they are and how they live in the *last frontier*. Information gathered for this project was obtained through immersing myself in the culture, talking with local residents, listening to personal stories, and comparing that information to what researchers said about the culture of Alaska.

Chronic Pain Interventions

Once a team of professionals is created and they begin to understand the cultural and personal factors impacting the person, context, and task, they need to provide interventions to help manage the chronic pain. This is not a straightforward system. The literature search revealed a specialized approach called *Lifestyle Redesign*®, which has been used to address occupational performance among people with chronic pain (Uyeshiro Simon & Collins, 2017). Lifestyle Redesign® is trademarked approach and highly researched with rigorous studies for a variety of target populations (Clark et al., 2011; Jackson et al, 1998). The key principles from Lifestyle Redesign® are patient education, promotion of healthy habits, and creating behavioral changes that can be incorporated into patient's daily lives (Uyeshiro Simon & Collins, 2017).

Interventions within the Lifestyle Redesign® program focus on self-analysis, problem solving, building motivation, and implementation of lifestyle behavior change (Uyeshiro Simon

& Collins, 2017). The interventions suggested for use in this scholarly project guide were adapted from the recommendations within the Lifestyle Redesign® program and align with the key concepts and intervention approaches found in the occupation-based model of EHP. Specific intervention handouts using an evidence-and-occupation-based approach were created to target the tasks most impacted by chronic pain; sleep, work, self-care, and leisure participation (Dahlhamer et al., 2018; Tom et al., 2022; Uyeshiro Simon & Collins, 2017).

Evidence-based Model

The theory guiding this scholarly project is the ecology of human performance (EHP; Dunn, 2017). EHP considers the dynamic relationships between a *person*, their *context*, and their *tasks* which in total impacts their overall performance (Dunn, 2017).

Person

The concept of person was targeted throughout this guide in section II and section IV. Section II is the evaluation and assessment portion of the guide that analyzes who the person is and how their chronic pain affects their daily function. Section IV addresses occupation-based interventions that provide value to the person as they work to self-manage their chronic pain.

Context

The context is primarily addressed in section I and section III of the guide. Section I emphasizes use of an interprofessional team to manage chronic pain. This section is intended for use by OT practitioners coming to rural Alaska and provides a list of other professions they could collaborate with when managing chronic pain. The cultural and social context is heavily portrayed in section III with information regarding rural Alaska areas, physical contextual challenges, the influence of native culture in Alaskan societies, and the impact of rural culture on chronic pain.

Task

The concept of task is found in section IV and appendix A of the guide as it focuses on interventions for OT practitioners to utilize when working with adults who experience chronic pain. The tasks are introduced through two figures in section IV that easily highlight the use of the occupation-based model of EHP intervention approaches. Appendix A addresses the tasks of sleep, work, self-care, and leisure activity because the literature review revealed that they are the most impacted by chronic pain (Dahlhamer et al., 2018; Tom et al., 2022; Uyeshiro Simon & Collins, 2017). The handouts were created for intended use by OT practitioners to provide educational material to their chronic pain patients. Each intervention handout incorporates EHP concepts and intervention approaches which focus on education, chronic pain self-management strategies, adaptation of the environment, modification of tasks through use of adaptive equipment, and creating lifestyle behavior change all of which also align with key concepts found within the Lifestyle Redesign® program (Uyeshiro Simon & Collins, 2017). This overlap ensures that the handouts are evidence-and-occupation-based and client-centered tools that will be useful for practitioners on a chronic pain management team.

Summary

The product was designed to inform OT practitioners who are new to Alaska on interprofessional chronic pain management strategies because there is a lack of access to healthcare resources in rural areas as well as a higher prevalence of reported pain. The guide provides valuable information that was gathered through immersion into rural Alaskan culture which provides a personal and first-hand experience to the unique Alaskan lifestyle. The roles of all interprofessional team members were described in the product to enhance collaboration of practitioners who can assist in chronic pain management. EHP was used to create the guide

because it was originally designed for interprofessional teams. The remaining sections of the guide were developed with intention to promote the use of occupation-based assessments, inform OT practitioners about Alaska's unique cultural characteristics to create a positive therapeutic relationship; and highlight occupation-based interventions that encourage engagement in tasks that are impacted by chronic pain. Informative intervention handouts are included in appendix A of the product which synthesizes evidence-and-occupation-based, model-driven strategies that aim to promote lasting lifestyle changes in adults with chronic pain.

CHAPTER IV

PRODUCT

The prevalence of anxiety, depression, and opioid dependence is greater in rural communities largely due to isolation from a lack of access to healthcare resources (Lagueux et al., 2018; Tom et al., 2022; Zelaya et al., 2019). This leads to occupational deprivation, poor mental health, and a decreased quality of life, especially in individuals who experience chronic pain (Kapoor & Thon, 2014; Zelaya et al., 2019). Chronic pain impacts occupations such as sleep, work, self-care, and leisure tasks (Dahlhamer et al., 2018; Tom et al., 2022; Uyeshiro Simon & Collins, 2017). The product of this scholarly project is a *guide* for occupational therapy practitioners in rural areas that addresses occupation-based strategies to manage chronic pain, and promote health, well-being, and quality of life in an interprofessional manner. This guide is titled *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska*.

Value of Occupational Therapy

Occupational therapy practitioners are essential members of the interprofessional team as they collaborate with patients and other professionals to provide holistic, evidence-based, client-centered care that has a unique focus on the daily function of an individual (Khodneva et al., 2020; Reeves et al., 2022; Tom et al., 2022, Uyeshiro Simon & Collins, 2017). While the profession is not as common in rural areas, it is highly sought after and necessary to improve

healthcare services and the quality of life for the community (Murphy et al., 2017). The model directing this guide will be the ecology of human performance (EHP) with a focus on the intervention approaches of establish/restore, adapt/modify, alter, prevent, and create (Dunn, 2017).

Utilization of the Guide

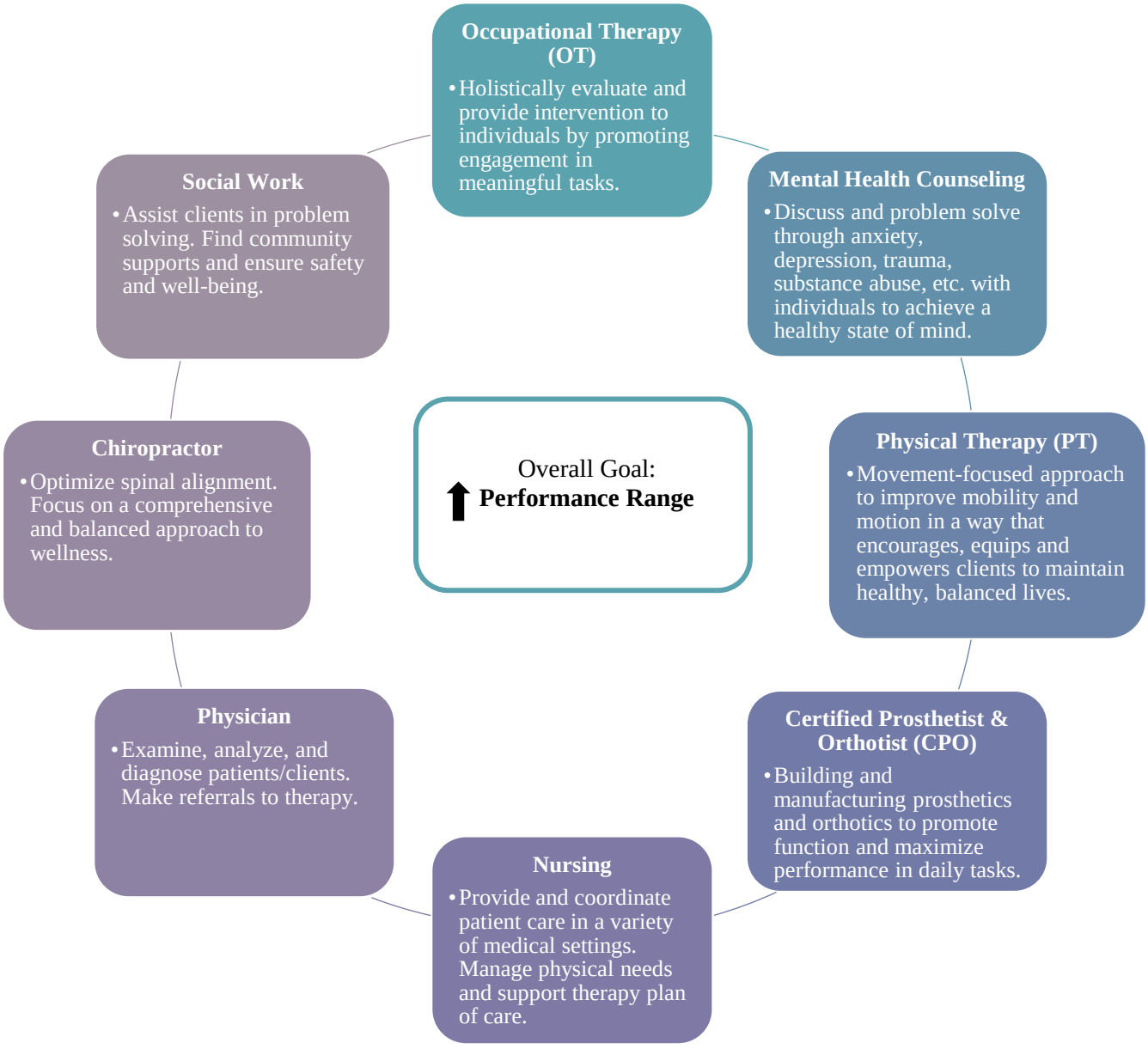
The *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska* is a model-driven occupational therapy guide to interprofessional (IP), occupation-based, client-centered, culturally relevant care to manage chronic pain in adults living in rural Alaskan areas. The goal is to distribute this guide to occupational therapy (OT) practitioners coming to work in rural Alaskan areas. This guide can be used as a tool to orient OT practitioners to new, unfamiliar areas in Alaska. It can also be utilized by travel recruiting agencies to promote and advocate for the OT profession in Alaska, which relies heavily on travel therapy to provide healthcare services to its communities. Regardless of how this guide is implemented, it will prove to be a useful product that informs OT practitioners about IP collaboration in rural communities, evidence-based, model-driven assessment of chronic-pain, culturally appropriate care; and evidence-and occupation-based interventions for chronic pain.

Section I: Interprofessional Approach to Chronic Pain

OT practitioners interact with several other professionals depending on the setting. The collaboration with these professionals takes effort to maintain as each profession has their own scope of practice, however each profession supports another by creating opportunities for client-centered care and positive outcomes. A strong IP relationship centers around good communication (Gatchel et al., 2014; Seaton et al., 2021).

To facilitate this relationship, it is helpful for OT practitioners to identify local providers, establish a networking system, and advocate for the profession. This can begin with a simple internet search to gather phone numbers and emails of local clinicians, join health-related organizations, and attend community business events. To eliminate competitive perspectives, it is also helpful to set up in-person meetings to increase familiarity, identify shared goals for patients, and create partnerships for service and programs. Once an OT practitioner establishes relationships with other providers, they can expand the network by connecting with other affiliated provider agencies. As always, advocating for the OT profession and emphasizing the distinct value of what occupational therapy can bring to the interprofessional team is crucial and ongoing throughout the networking process. Figure 1 outlines some of many connections occupational therapy practitioners can make within rural communities and how each discipline supports occupational therapy.

Figure 1
Interprofessional Relationships



IP collaboration and teamwork is shown to be an efficient and effective way for clients to meet their goals (Reeves et al., 2022; Voss et al., 2020). The local hospital is a valuable place to start to meet the members of these professions and create meaningful connections. Information in

this section was condensed in Figure 1 and gathered from prior knowledge and discussions with local professionals about their perspective of their relationship with occupational therapy.

The OT and Mental Health Counseling Relationship

OT has a significant role in providing mental health services. Mental health counselors and OTs complement each other as they strive for a common goal of healthy mental and behavioral wellness. Both professions address coping strategies for managing mental stressors and limitations due to physical pain. Pain can cause a mental and emotional toll on a person's body, which both professions can help through motivational interviewing, mindfulness training, problem-solving and self-management strategies.

The OT and PT Relationship

OT practitioners and PT practitioners are the two professions that work most closely together. The scopes of practice have some overlap but complement each other well. The PT focus is typically on physical function and mobility. Their focus is on exercise programming, manual therapy, and postural re-education (Reeves et al., 2022). The OT implements a lifestyle approach as they work on pacing strategies, task analysis, energy conservation and ergonomic training (Reeves et al., 2022). These approaches support one another as OT facilitates establishment of a routine to engage in daily tasks and exercises prescribed by the PT and the PT supports the ergonomic training and pacing of daily activities as implemented by the OT.

The OT and CPO Relationship

A Certified Prosthetist Orthotist (CPO) specializes in building and fitting devices to a person to maximize their performance in daily tasks. They focus on the alignment and biomechanics of an individual when using prosthetics or orthotics. OT helps monitor for adjustments needed to the device to make an individual more comfortable and independent. OT

assists with compliance by creating a wearing schedule and reinforcing the education from the CPO on how to put on and take off the device made specifically for the person.

The OT and Nursing Relationship

Nursing is an essential profession within our healthcare system. Nurses provide direct patient care and aid in pain management strategies including the monitoring of medication intake. Occupational therapists also aid in pain management but focus more on self-management strategies and activity modification. Depending on the setting, these two professions could work very closely together. Both OT and nursing assist people to improve their health and independence.

The OT and Physician Relationship

A physician is the doctor in charge of referring someone to an occupational therapist. A physician has a vast scope of practice but may refer someone to OT if they become injured, experience difficulty in their daily activities, endure a medical event, need assistance recovering after a surgery, or need consultation for mental health challenges that impact their daily function.

The OT and Chiropractic Relationship

Chiropractic care is considered a holistic practice and not commonly included within an interprofessional medical team. The primary role of chiropractors is pain relief and spinal alignment with the overall goal to improve function and help the body heal itself. Similarly, OT looks at the whole person and treats them *holistically* as they help to manage pain without the use of medications. Chiropractors focus on the physical body and manipulation of the person's body structure while OT promotes engagement in daily tasks despite physical limitations.

The OT and Social Work Relationship

Social workers work in a variety of settings from community-based programs to the medical system. Likewise, the scope of practice for where occupational therapists can work also varies. Occupational therapists specialize in identifying what supports a person requires to live as safely and independently as possible, while social workers specialize in seeking equality, justice and appropriate resources that will support the safety and well-being of an individual.

Section II: Evaluation for Chronic Pain

The occupational therapy process is composed of three elements: evaluation, intervention, and outcome (American Occupational Therapy Association, 2020). The first portion of this process involves gathering an occupational profile and an analysis of occupational performance. The occupational profile provides valuable insight into a person's background and sets the foundation for the direction of therapy (AOTA, 2020). The occupational performance analysis is beneficial to determine the client's abilities and determine potential limitations and areas for improvement throughout the therapy process. Table 1 describes possible assessments that can be utilized between disciplines that target different aspects of the EHP model. The outcome of these assessments varies depending on what area the practitioner is targeting, but all assessments help to form a better understanding of what the patient is experiencing from their perspective. The assessments shown in Table 1 are considered standardized based on the specific instructions that come with each one as well as a set of norms. It is important to use clinical judgement during the evaluation process to determine the appropriate assessment to use for the client. Other tools including informal assessments such as an interview, questionnaire, discussion, or skilled clinical observation may also provide detailed and valuable information.

Table 1

Occupation-based Standardized Assessments for Chronic Pain

Assessments	Resource	Targeted EHP Area	Outcome
Canadian Occupational Performance Measure (COPM)	Law et al. (2014)	Person Context Task	Understanding of an individual's personal and medical history, meaningful tasks, and personal goals for therapy.
Assessment of Life Habits Questionnaire (LIFE-H)	Noreau (2004)		
Functional Independence Measure (FIM)	Granger & Hamilton (1986)	Task Performance Range	Understanding of an individual's functional performance and limitations when engaged in specific tasks.
Impact on Participation and Autonomy (IPA)	Cardol & De Jong (2002)		
Brief Pain Inventory	Cleeland (2009)	Person	Understanding of the pain levels of an individual and the tasks that are most impacted from their pain.
Assessment of Pain and Occupational Performance (POP)	Perneros & Tropp (2009)		
Visual Analogue Scale (VAS)/Visual Numeric Scale (VNS)	Sullivan et al. (1995)		

Section III: Culturally Appropriate Chronic Pain Management in Rural Alaska

People in rural areas are at greater risk of experiencing and reporting high chronic pain levels (Kapoor & Thorn, 2014). Alaska is the largest state in the United States and the most sparsely populated ("Alaska," 2023). Alaska is unofficially broken into six different regions: South Central, Southeast, Interior, Southwest, North Slope, and the Aleutian Islands. Depending on where you are in Alaska, the climate and population density varies. The south – southeast has a very mild climate, experiencing a lot of precipitation and above freezing temperatures. The farther north, the more subarctic the climate becomes. All regions experience their own contextual difficulties, but most often, the remote and rural areas of Alaska have limited access to basic resources and healthcare services putting them at an increased risk of pain and occupational deprivation.

Alaska Economy

Alaska has an abundance of natural resources from its coastlines and national forests. The main resources of commercial fishing, natural gas, oil, and tourism have contributed greatly to the economy ("Alaska," 2023). The people working in these occupations often have busy seasonal schedules that pull them out to sea, away from their families, or to different parts of Alaska for weeks at a time. This disrupts any consistent healthcare or medical scheduling and can contribute to overuse leading to chronic pain. Due to limited transportation and extreme infrastructure, rural Alaska suffers from extremely high consumer good and food prices on top of the already high cost of living within the state. This also causes healthcare costs to rise making it difficult for people to access the proper healthcare services they may need to help manage their chronic pain symptoms.

Influence of Alaskan Native Culture

For thousands of years, Indigenous people have comprised a sizable portion of Alaska's population which has influenced its culture, politics, and way of life across the entire state. Much of Alaska's culture is centered around the rich history of eleven different native groups that promote art, music, movies, and spark creativity ("Alaska," 2023). Compared to non-Natives in the United States, Alaska Natives have higher rates of suicide, substance abuse and unintentional injuries (Wexler, 2010). In many Alaskan cities, there are free medical facilities intended only for use by the native population. These facilities are helpful for improving access to healthcare but exclude populations that are not native to Alaska.

Table 2 is a compilation of cultural patterns found in Alaska from the literature and from self-immersion into a rural Alaskan community. The information in table 2 is broken down into three constructs according to the EHP model: person, context, and task. The person column focuses on an individual's abilities, experiences, and limitations The context focuses on the physical, social, cultural and temporal conditions surrounding an individual and the tasks are any observable behaviors, roles or actions a person engages in (Dunn, 2017).

Table 2
Cultural Observations in Alaska

Alaska Cultural Observations		
Person	**Context**	**Task**
• **Literature:** • Alaskan's value personal autonomy, social support, & cultural status (Wexler, 2010). • Personal relationships are preferred vs. authoritative (Wexler, 2010). • Highly populated with indigenous people ("Alaska," 2023). • High rates of suicide, substance abuse and unintentional injury (Wexler, 2010). • **Clinical Observation/Discussion:** • High presence of drug and alcohol use. • Seasonal jobs leading to overuse and increased levels of chronic pain. • Seasonal depression is common due to the lack of sunlight during winter months.	• **Literature:** • Alaska is the largest state in the U.S. and most sparsely populated state ("Alaska," 2023). • Alaska's infrastructure consists of mountains, lakes, glaciers, the Pacific Ocean, Gulf of Alaska, Bering Sea and Arctic Ocean. • The people in Alaska rely on rail, roads, marine transport, air transport, dog mushing and snow machines for transportation and shipment of goods ("Alaska," 2023). • **Clinical Observation/Discussion:** • Mountainous terrain, steep roads/stairs. • Climate/weather is extreme and varies throughout the state (rain, ice, snow, sun, darkness) • There is value in close-knit community	• **Literature:** • Common work placements include commercial fishing, natural gas and oil drilling, and service in U.S Armed Forces ("Alaska," 2010). • **Clinical Observation/Discussion:** • Leisure tasks consist of many different outdoor activities. • Tourism brings in almost double the population every year, causing a need for more part-time workers in the summer months. • Work such as blue-collar jobs, fishing, trapping, crabbing, equipment operators, construction workers, freight/stock movers, etc. are more prevalent in Alaska. • There is difficulty with engagement in sleep, self-care, work and leisure tasks. • Leisure tasks are more challenging in the winter months. • Sleep is challenging depending on the location in Alaska and the length of daylight throughout the year – use of blackout curtains and seasonal sunlight lamps are common.

The information in Table 2 is important when considering each of the EHP (Dunn, 2017) constructs of person, context and task paired with someone experiencing chronic pain. Chronic pain will significantly limit a person's abilities, skills, and connection with others. According to Wexler (2010), it is crucial for healthcare practitioners to create a personal connection rather than ordering the individual what to do, especially in rural areas. Regarding the context, the structure and climate of Alaska can increase chronic pain levels and the ability to freely move about the environment. The individual tasks vary but are important as they provide meaning to the person and can be limited due to elevated levels of chronic pain.

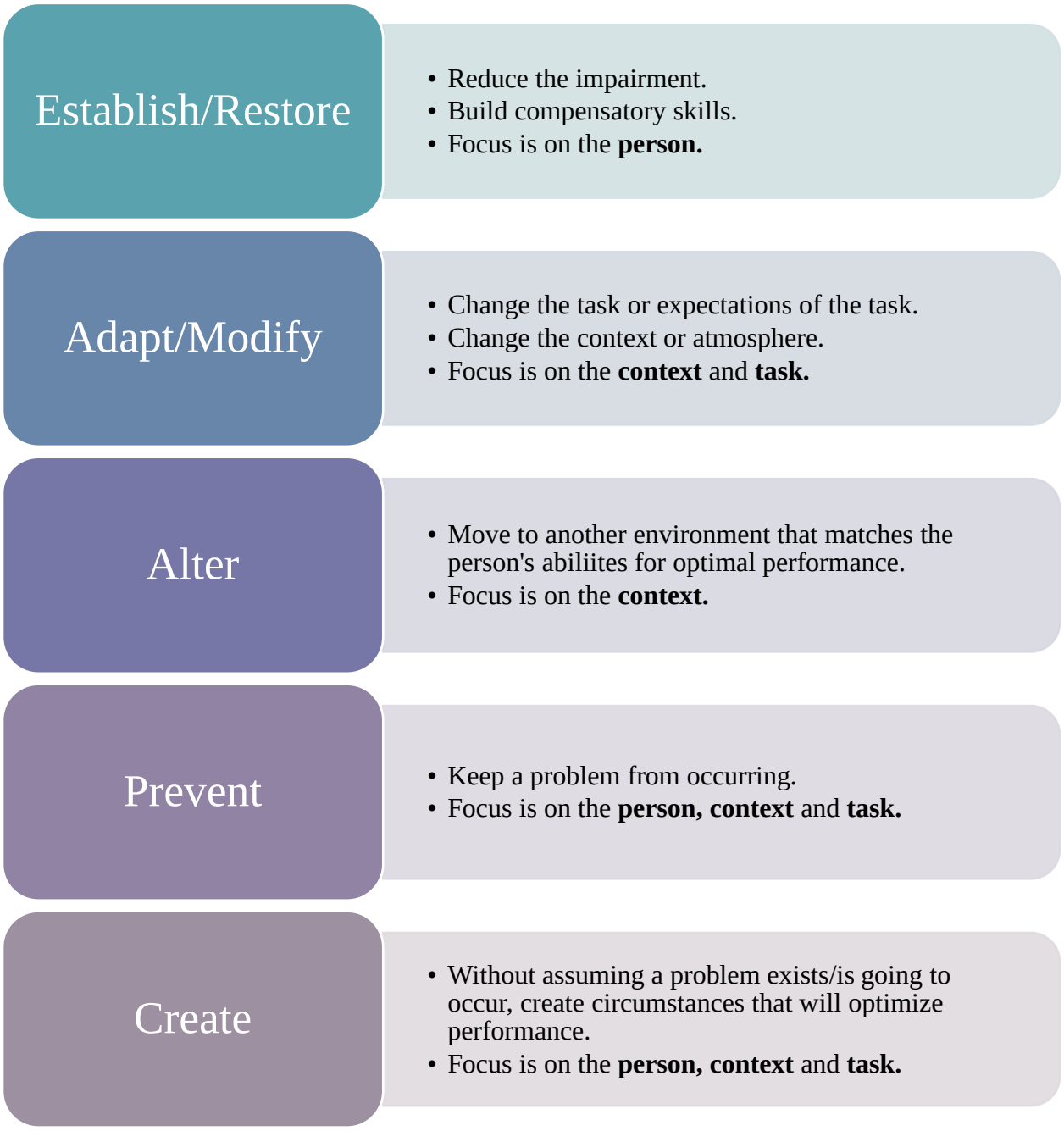
Section IV: Occupation-based, Client-centered Intervention for Chronic Pain

A quality intervention is one that is rooted in evidence (Lagueux et al., 2018; Murphy et al., 2017; Uyeshiro Simon & Collins, 2017). Using the EHP model to direct the creation of this guide ensures the recommendation of evidence-based interventions. The description and use of each EHP intervention approach is show in Figure 2. The goal of all intervention approaches is to support the performance needs and interests of the person (Dunn, 2017).

According to the American Occupational Therapy Association (2020), there are nine occupation categories; activities of daily living (ADLs), instrumental activities of daily living (IADLs), health management, rest and sleep, education, work, play, leisure, and social participation. The occupations, also referred to as *tasks* in the EHP model that are listed in Figure 3 are those found to be most impacted by chronic pain. Several authors discovered that sleep, work, self-care, and leisure tasks were the primary areas affected by chronic pain (Dahlhamer et al., 2018; Tom et al., 2022; Uyeshiro Simon & Collins, 2017). Figure 3 is a breakdown of the impacted tasks combined with the five EHP intervention approaches. Figure 3 describes only a few possible intervention ideas, which can be as creative as possible. Intervention handouts can be found in Appendix A, which provides in-depth intervention ideas for each impacted task area. Regardless of the type of intervention approach being used, it is important to maintain best practice by engaging the client in evidence-based, client-centered, culturally relevant, and occupation-based interventions.

Figure 2

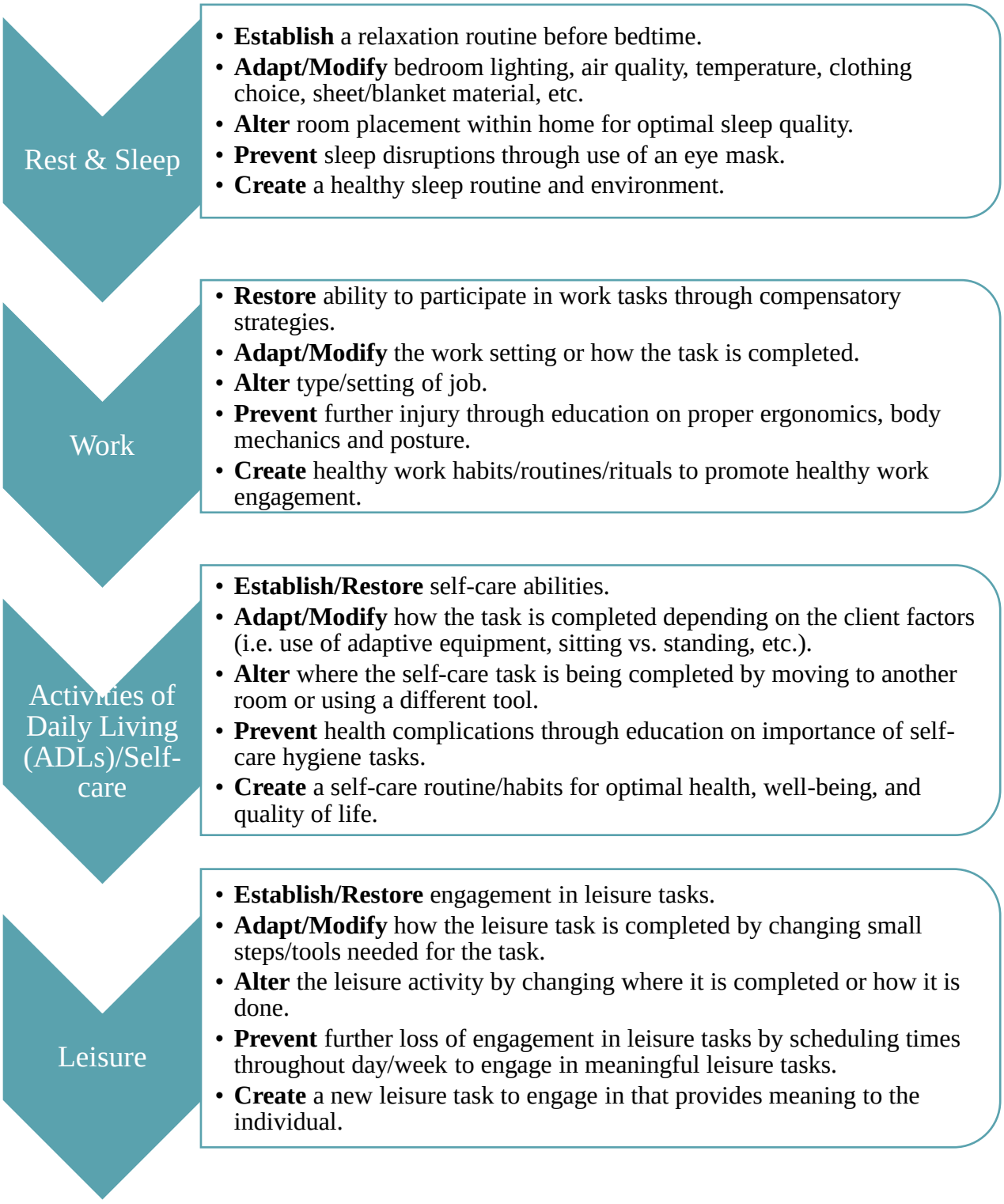
Ecology of Human Performance (EHP) Intervention Approaches



(Dunn, 2017)

Figure 3

EHP Intervention Ideas for Tasks Most Impacted by Chronic Pain



(Dunn, 2017)

Summary

This guide will serve as a useful tool to integrate occupational therapy into interprofessional chronic pain management teams. Rural Alaska can be very remote and often relies on travel therapy to provide the minimum number of staff needed to care for individuals in these areas. Interprofessional chronic pain management is necessary to provide the proper holistic care to promote health, well-being, and quality of life. Through interprofessional networking, evidence-based evaluation and assessment, culturally appropriate care, and client-centered, occupation-based interventions, occupational therapists prove to be valuable members of the interprofessional chronic pain management team in rural Alaskan areas.

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CHAPTER V
SUMMARY

This scholarly project was created for occupational therapy (OT) practitioners in rural Alaska. While immersed in the Alaskan culture, evidence-and-occupation-based interventions were reviewed, analyzed, and organized into a *guide.* The guide entitled *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska* is complied with information about interprofessional collaboration, assessments used for chronic pain, Alaska cultural insight, and potential occupation-based interventions to be utilized.

Possible Implementation

Ideally, this guide will be distributed to OT practitioners in rural Alaskan areas and serve as an orientation tool as they familiarize themselves with interprofessional, culturally relevant, evidence-and-occupation-based interventions to manage chronic pain. Development of *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural* Alaska occurred at a rural Alaska outpatient clinic where staff wanted to do more interprofessional collaboration with OT practitioners and other professionals to address multifaceted chronic pain issues. At the time of this writing, staff at the clinic are in the process of implementing this guide. This guide also served as a useful tool for the foundation of a job description for an OT position at Optimum Health and Wellness Physical Therapy (OHWPT). The job description will highlight incentive pay, structured programming, and the use of this guide to direct interprofessional care and network around the area. Permission was obtained to implement this

Guide (appendix C) and the creation of a new occupational therapist job position at OHWPT in Ketchikan, Alaska is found in appendix B. A detailed implementation plan can be found in appendix D.

Limitations

A major limitation to the development of this scholarly project was the rural location of which this guide was created. Ketchikan, Alaska is a small, tourist town in Southeast Alaska that may not accurately represent the majority population and context of other rural Alaskan areas. Another limitation was that there were no occupational therapists at the location where this scholarly project was completed. There was also no IRB approval prior to this scholarly project, thus formal research methods to assess needs or efficacy of this guide have not yet been conducted; however, the guide itself is grounded in evidence and an OT theoretical model that also has supporting evidence.

Occupational Therapy Practice Implications

The purpose of this project was to create an evidence-based, model-driven, culturally relevant resource that highlights intervention options for OT practitioners working with adults who experience chronic pain in rural Alaskan areas. Occupational therapy has a vast scope of practice but will always have a role when working with individuals who experience chronic pain. Clearly defining this role and establishing effective interventions will help to advance and expand the profession of occupational therapy. This guide would also be useful to healthcare travel agencies to recruit and orientate OT practitioners to interprofessional chronic pain teams in rural areas of Alaska.

Recommendations

It is recommended that further research be done, through the process of IRB approval, to expand on the gaps and healthcare needs of rural Alaskan areas. Another recommendation would be to include OT practitioners on all interprofessional chronic pain management teams, as they provide a unique lifestyle and behavioral approach that will provide meaning to the individual being served.

Conclusion

This guide is an evidence-based, model-driven, culturally relevant resource with occupation-based, client-centered intervention ideas for adults who experience chronic pain. OT practitioners are useful members of the interprofessional team and can assist in improving functional engagement in meaningful tasks and improve an individual's quality of life. OT practitioners can utilize this guide and continue to advocate for the profession when practicing in rural Alaskan areas. It is important that OT practitioners incorporate the interventions suggested to improve sleep, self-care, work, and leisure participation, leading to better health and overall well-being

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APPENDIX A

INTERVENTION HANDOUTS

REST & SLEEP

Seven ways to manage pain levels and establish healthy sleeping habits

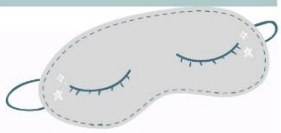
Avoid excess caffeine.

Beverages and food that contain extra stimulants can impact sleep quality, pain severity, and the ability for your body to calm down and relax, especially later in the day (Dasgupta, 2020).

Engage in regular exercise.

Regular exercise routine can help contribute to improved sleep, increased function, and overall health (Tom et al., 2022).

Establish a consistent sleep schedule.



Going to bed and waking up at the same time every day reinforces a natural sleep cycle for your body (Tom et al., 2022).

Create a relaxing bedtime routine.

Tasks such as taking a warm bath/shower, meditation, listening to soothing music, or reading a book help relax your body, distract you from pain, and allow you to fall asleep more quickly (Dasgupta, 2020).

Disconnect before bed.

At least an hour before bed, avoid all screens that emit blue light which reduces melatonin levels that help your body fall asleep (Dasgupta, 2020).

Keep your room cool and comfortable.

Modifying your environment to ensure it is cool, dark, quiet and comfortable will allow for uninterrupted sleep. Better sleep quality throughout the night can help reduce pain levels during the day (Dasgupta, 2020).

Avoid foods that cause inflammation.

Fuel your body with whole foods that provide natural fuel and allow time for your body to digest food before going to bed. Inflammatory foods can increase pain levels and disrupt sleep (Dasgupta, 2020).

Interventions for Returning to Work:

Chronic pain impacts an individual's ability to engage in work tasks which can impact their purpose and overall well-being in life

(Dahlhamer et al., 2018; Tom et al., 2022).

What is Work?

- Labor or exertion related to development, production, delivery or management of objects/services.
- Financial or nonfinancial beneifts.

(AOTA, 2020)

Start with an activity analysis to understand the work demands. Then provide intervention for:

- Education/Training
- Interventions to support work tasks
- Workplace Accommodations

1. Educate on workplace safety, ergonomics, body mechanics, posture, and self-regulation strategies to prevent pain/injury.

2. Modify the work context, utilize physical agent modalities, or integrate use of adaptive equipment to create a safe workplace.

3. Research what policies, protocols, and resources are available to ensure proper workplace accommodations for optimal performance and participation in work tasks.

(Dahlhamer et al., 2018; Shin et al., 2022; Tom et al., 2022)

Self-Care

Intervention ideas to further independence and safety in self-care tasks.

Dressing

Chronic pain can impact the ability to don and doff clothes. Try implementing adaptive equipment such as a reacher, sockaid, shoe horn or dressing stick.

Toileting

Toileting can be a daunting task when limited by chronic pain. Adapt/modify the steps of the task by sitting, using a toilet riser, toilet tongs, or use of grab bars.

Bathing

Bathing is often avoided when associated with increased pain. Use warm water and educate on energy conservation, compensatory strategies, and use of adaptive equipment such as a long handled sponge or reacher.

Eating

Educate on proper food choices, frequency of eating, fluid intake and potential weight loss for joint protection and reduction in inflammation.

(Dahlhamer et al., 2018; Tom et al., 2022; Uyeshiro Simon & Collins, 2017)

LEISURE TASK INTERVENTIONS FOR CHRONIC PAIN

WHAT IS A LEISURE TASK?

Any activity that is completed in an individual's free time that is free from life obligations (work, sleeping, eating). These are tasks that add unique value to someone's life as they are intrinsically motivated to engage in these tasks (AOTA, 2020).

PAIN PREVENTION

Engagement in meaningful leisure tasks can distract and prevent chronic pain flares.

HEALTH & WELLNESS

Creating a healthy work-life balance allows for more time to engage in tasks that promote health and wellness for individuals experiencing pain.

LEISURE EXPLORATION

Start by having the client identify what their interests, skills, and opportunities are to discover different activities they may be interested in exploring further.

LEISURE PARTICIPATION

Once leisure activities are identified, it's time to engage in them! This includes making sure there is a balance between necessary tasks and leisure. Tasks such as cooking, gardening, laundry and cleaning were found to be most challenging for those with chronic pain. (Schmid et al., 2019).

LEISURE INTERVENTION IDEAS

WHERE TO START:

- Pilates - focus on breathing control and muscle stretching.
- Mindfulness-based stress reduction.
- Relaxation training to ease body tension.
- Engage in physical activity to promote pain-free movement.
- Educate on proper body mechanics to reduce pain.
- Teach energy conservation strategies.
- Pacing/grading of a task to make easier or more challenging.

(Lagueux et al., 2018; Tom et al., 2022)

SOCIAL PARTICIPATION

Enhancing someone's social support makes them feel loved, heard, and cared for. Whether this be through group therapy, meeting up with friends or spending time with family we all need some level of social interaction.

(Dahlhamer et al., 2018)

CLIENT-CENTEREDNESS

Be mindful of your client's strengths, areas of growth, and what truly brings value to their life. If it matters to them, it should matter to you!

APPENDIX B

OT JOB POSTING

Outpatient Occupational Therapist

Optimum Health & Wellness

This position is in Ketchikan, Alaska and requires relocation and in-person work.

About Optimum Health and Wellness: We are a physical therapist owned and operated private outpatient clinic in Ketchikan, Alaska. We opened our doors in 2004 and continue to grow and serve the community of southeast Alaska while promoting health and well-being in our patients. We have a wonderful team culture and offer leadership and mentorship programs to stay up to date with current practices and provide evidence-based care. Our CEO, Kelly Chick Comstock is a premier Craniosacral practitioner.

Our mission is to encourage, equip, and empower our community into wellness.

We are committed to hire employees who are dedicated to achieve personal goals, help others achieve their life goals & dreams and strive to make Ketchikan a healthier and happier place to live.

Benefits of Joining Optimum:

- Living in southeast Alaska's outdoor playground with easy access to kayaking, hiking, fishing, and boating
- 1 on 1 patient visits. We mean it.
- Leadership & Mentorship programs
- Opportunity for training and certifications in musculoskeletal ultrasound (FMSK), and electromyography (ECS)
- Relocation Assistance
- Longevity Bonus
- Student Loan Reimbursement
- Competitive salary with bonus incentives

Requirements:

We are looking for outgoing, team oriented, and committed occupational therapists who wants to be a part of something larger than themselves. We recognize what we have to offer is special, so we want to make sure this is the best fit possible.
We prefer if you have a few years of experience, but we will not turn away the right person. More than anything, we are looking for future leaders who can appreciate the mentoring and leadership development opportunities we offer and who want to build upon our company's legacy.

Skills:

This job requires the ability to be flexible and implement the full scope of the occupational therapy process. Must be able to work as an interprofessional team and maintain good communication skills with all team members. We are looking for someone who can form positive therapeutic relationships, implement client-centered, occupation-based interventions, adapt and modify interventions as needed and comply with clinic policies and regulations.

If this speaks to you on any level, shoot us an email or give us a call. We would love to get to know you!

Work Location: Ketchikan, AK

Job Type: Full-time

Pay: $85,000.00 – 100,000.00

Benefits:

- Employee assistance program
- Paid time off
- Tuition reimbursement

Medical specialties:

- Geriatrics
- Neurology
- Orthopedics
- Pediatrics
- Physical & Rehabilitation Medicine
- Sports Medicine

Schedule:

- 10-hour shift/8-hour shift
- 4x10/5x8
- Day shift

Education: Master's Degree (Required)

License/Certification:

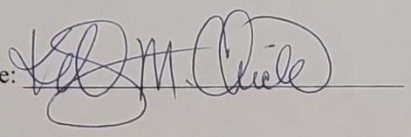
- National & State Occupational Therapy License (Required)
- Active CPR/BLS Certification (Required)

APPENDIX C

RELEASE OF INFORMATION FORMS

Information Release Form

I, Kelly M. Chicle, grant permission to Emma Lehman and the Occupational Therapy Department at the University of North Dakota School of Medicine and Health Sciences to use our company name and information for educational, promotional, operational purposes, or other conditions that may arise. I understand that this information may be published in scholarly work through Scholarly Commons, a repository service of the University of North Dakota libraries, which may be accessed from around the world.

Signature:  Date: 3/16/2023

APPENDIX D

IMPLEMENTATION PLAN

Implementation Plan

The purpose of this scholarly project was to advocate for the profession of occupational therapy in rural Alaska and develop a guide to direct OT practitioners who are new to Alaska and are interested in working with adults experiencing chronic pain.

Product Goal

The *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska* will be utilized by Optimum Health and Wellness as they recruit OT practitioners to their clinic who are new to Alaska. The guide will be used as a tool to introduce the practitioners to occupation-based chronic pain management interventions and promote interprofessional collaboration within the clinic and community.

Product Objectives

1. Optimum Health and Wellness staff will use the guide to promote occupational therapy services and interprofessional collaboration within the clinic.
2. Optimum Health and Wellness staff will evaluate the effectiveness of the guide as evidenced by inclusion of OT practitioners at the outpatient clinic.

Operational Plan

The product of this scholarly product, the *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska* will be printed, spiral bound, and provided in paper and electronic copy to Optimum Health and Wellness. The cost of printing the guide ranges from $20-$150 depending on quality of products and number of copies. The guide is comprised of four sections. Section I addresses the importance of interprofessional collaboration and highlights other professions to connect with around the community. Section II addresses evidence-based assessments to be utilized when evaluating individuals with chronic

pain. The list of assessments was developed through comparison of what Optimum Health and Wellness was already using and common assessments found throughout the literature review process. These assessments cost anywhere from $0 to $100 per assessment and may need to be considered for purchase by the clinic. Section III describes cultural considerations for rural Alaska areas to provide practitioners with insight into forming a healthy therapeutic relationship with patients, other practitioners, and community members. Section IV describes evidence-and-occupation-based interventions that may be utilized when working with adults experiencing chronic pain that impacts areas such as sleep, work, self-care, and leisure tasks. To properly implement these interventions, there may be additional costs for clinic supplies which would need to be determined on a case-by-case basis to ensure client-centered interventions. The clinic currently has an ample supply of gym equipment, therabands, weighted bars, kettlebells, platforms, putty, O2 saturation monitors, treatment tables, and bean bags. Further analysis of clinic supplies, and space is needed to properly support the inclusion of occupational therapy as a team member at the clinic.

Marketing of Product

The target market for the product is the staff at Optimum Health and Wellness. The guide was designed to draw OT practitioners to rural Alaskan areas. Additional stakeholders such as family members, patients, referral sources, and other facilities that may be associated with Optimum Health and Wellness may also benefit from the implementation of this guide. The guide may also be a useful marketing tool by itself as it may draw interest from OT practitioners to come work in rural Alaska areas. The guide describes the need for OT practitioners on the chronic pain management team and advocates for interprofessional collaboration. The guide may

be provided to travel therapy agencies working with traveling OTs who may be interested in working at Optimum Health and Wellness, or other rural areas in Alaska.

Monitoring Effectiveness

A physical and electronic copy of the guide will be provided to the staff of Optimum Health and Wellness. It will be the responsibility of the clinic manager to distribute the guide as needed to incoming OT practitioners or travel therapy agencies who are interested. The front desk receptionists will be responsible for implementing the questionnaire and surveys for practitioners and patients below. This data will then be used to measure the effectiveness of the implementation of the guide. Data will be used for internal clinic purposes only and no personal information will be collected. If quantitative and qualitative measures show an increase in interprofessional collaboration and a decrease in the impact of chronic pain on daily tasks, then the guide will be proven to be an effective tool at the clinic.

Product Outcomes

The *Occupational Therapy Guide to Interprofessional Chronic Pain Management in Rural Alaska* was created to fill the gap that exists in rural areas on interprofessional chronic pain management teams. The ideal outcome from the product of this scholarly project is the creation of an occupational therapist job placement at Optimum Health and Wellness. Additional outcomes include increased presence of OT practitioners on the chronic pain management team, increased interprofessional collaboration, increased number of practicing OT practitioners in Ketchikan, AK, and an increase in satisfaction and quality of life for adults experiencing chronic pain.

Practitioner Interview Questions

Purpose: This qualitative measure is to gain insight into the effectiveness of the *Occupational Therapy Guide to Interprofessional Chronic Pain Management*. The questions will target the practitioner perception of interprofessional collaboration at Optimum Health and Wellness and the ability to work with patients experiencing chronic pain.

1. Describe your interprofessional approach to chronic pain management.
2. How do you feel your interprofessional approach has changed since working with an OT at this clinic?
3. How has your approach to managing chronic pain changed since reviewing the OT *guide*?
4. How do you feel the OT *guide* has helped your therapy skills?
5. How do you feel the OT *guide* has hindered your therapy skills?
6. Tell me about your confidence with treating adults experiencing chronic pain.
7. How are your patients able to better manage their chronic pain with an OT on the team?
8. How have your patient's functional abilities improved with having an OT on the team?
9. What things would you like to see changed regarding use of the OT *guide*?
10. What would you like to change regarding your approach to managing chronic pain?

Practitioner Survey

Purpose: This quantitative measure will assess the success of the implementation of the *Occupational Therapy Guide to Interprofessional Chronic Pain Management*. The questions will target the perception of employees at Optimum Health and Wellness to get a deeper understanding of the interprofessional teamwork and patient outcomes.

Initials: _____ Date: _____

Reason for patient coming to OHWPT: _____

_____

_____

Objective patient outcomes following plan of care: _____

_____

***Disclaimer:** All personal information will be kept anonymous and confidential. Information will only be used for research purposes by Optimum Health and Wellness. It will be used to gain a better understanding of the efficacy of the OT *guide*.

Communication was effective between team members during the patient's plan of care.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

There was noticeable benefit from the patient engaging in Occupational Therapy services.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

My patient left OHWPT with greater physical function when compared to the initial evaluation.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

My patient reports a decrease in their pain levels compared to the initial evaluation.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I feel confident in my ability to implement chronic pain intervention strategies with my patients.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I feel comfortable asking my colleagues questions about improving my plan of care.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I feel like the OT *guide* has helped me when working with patients experiencing chronic pain at OHWPT.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

Patient Survey

Purpose: This quantitative measure will assess the success of the implementation of The *Occupational Therapy Guide to Interprofessional Chronic Pain Management*. The questions will target the perception of patients receiving OT services at Optimum Health and Wellness to get a deeper understanding of the effectiveness of services.

Initials: _____ Date: _____

Reason for coming to OHWPT: _____

_____

_____

How you feel after completing your plan of care: _____

_____

***Disclaimer:** All personal information will be kept anonymous and confidential. Information will only be used for research purposes by Optimum Health and Wellness. It will be used to gain a better understanding of the quality of services provided by OHWPT.

My therapist demonstrated effective communication during our time together.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I felt personally cared for during my treatment sessions by all team members.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I felt welcomed by all staff members at OHWPT.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I learned effective ways to manage my own chronic pain.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I experience less pain throughout the day compared to when I started coming to OHWPT.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I have learned strategies to assist me in sleeping better at night.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I have learned strategies to perform self-cares more efficiently.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I am able to engage in more meaningful leisure tasks compared to when I started coming to OHWPT.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10

I feel that receiving Occupational Therapy services has benefitted my health and wellbeing.

Strongly Disagree Strongly Agree

1 2 3 4 5 6 7 8 9 10