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Increasing Occupational Engagement by Addressing Psychosocial and Occupational Factors of Chronic Pain: A Case Report

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Increasing Occupational Engagement by Addressing Psychosocial and Occupational Factors of Chronic Pain: A Case Report

Abstract

Background: Chronic pain can significantly disrupt occupational engagement through physical, psychological, and social domains. Because pain is a subjective experience influenced by numerous factors, it has the capacity to become increasingly complex. Evidence supports addressing chronic pain through a biopsychosocial approach and promoting health and well-being through occupational engagement.

Method: This case report describes the implementation of psychosocial and occupation-focused assessments and interventions for a 68-year-old client with chronic pain and increased symptoms of depression, anxiety, and pain catastrophizing. The use of an occupation-focused time-use assessment (Occupational Experience Profile), psychosocial assessments, and pain assessments guided intervention development. Occupational therapy intervention consisted of evidence-based approaches to address well-being and the pain experience through motivational interviewing, acceptance and commitment therapy, therapeutic exercises, pain neuroscience education, and graded exposure to occupational engagement.

Results: The client demonstrated significant progress, and although pain was still present at discharge, he had met all client-directed goals. Outcome measures at discharge indicated improvements in depression, anxiety, catastrophizing thoughts about pain, and occupational engagement.

Conclusion: Using a biopsychosocial approach, occupational therapists can incorporate psychosocial and occupation-focused assessments and interventions to increase quality of life and occupational engagement, improve overall well-being, and support clients in living well with chronic pain.

Comments

The authors declare that they have no competing financial, professional, or personal interest that might have influenced the performance or presentation of the work described in this manuscript.

Keywords

persistent pain, occupational therapy, mental health, evaluation, intervention, participation

Credentials Display

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Pain is a leading source of human suffering and disability and one of the most common reasons individuals seek medical care (Treede et al., 2019). The International Association for the Study of Pain (IASP) defines pain as “an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage” (Raja et al., 2020, p. 1977). Currently, chronic primary pain is defined as pain in one or more anatomical regions that persists or recurs for longer than 3 months and is associated with significant emotional distress and/or functional disability (interference with activities of daily life and participation in social roles) and cannot be better accounted for by another condition (Treede et al., 2019). In the United States, the prevalence of chronic pain has been estimated to be approximately 100 million adults (Gaskin & Richard, 2012). This major health problem has been associated with a significant economic burden, as chronic pain treatment costs approximately \$560 to \$635 billion per year in the United States (Gaskin & Richard, 2012).

Chronic pain has significant long-term consequences that negatively affect occupational engagement and health (American Occupational Therapy Association [AOTA], 2021). Chronic pain can prevent individuals from actively engaging in preferred occupations, which negatively impacts physical, mental, and social well-being (AOTA, 2021). Chronic pain can negatively impact multiple aspects of health, including physical capacity, sleep, cognitive processes and brain function, mood, mental health, cardiovascular health, sexual function, and overall quality of life (Fine, 2011). Because chronic pain can potentially impact an individual physically, socially, and psychologically, it may also limit their ability to satisfactorily engage in valued daily activities and occupations (AOTA, 2021). Chronic pain syndromes are often associated with comorbidities that further impede daily functioning and diminish quality of life (Dahan et al., 2014). Approximately 50%–75% of individuals who experience chronic pain demonstrate symptoms of anxiety and depression (Dahan et al., 2014). Therefore, when treating chronic pain, health care practitioners must go beyond simply reducing pain and consider physiological, psychological, and social factors (AOTA, 2021). Doing so encourages a multidisciplinary approach and often involves multiple health care professionals to address numerous client factors (AOTA, 2021). Occupational therapists, in particular, are well-suited to address the physiological, psychological, environmental, and social factors associated with chronic pain (AOTA, 2021).

Through a biopsychosocial approach, occupational therapists strive to reduce pain’s impact on health and well-being and increase clients’ engagement in meaningful and valued occupations (AOTA, 2021). The therapeutic use of occupation promotes and addresses the client’s physical capacity, mental well-being, and spiritual needs (AOTA, 2021; Lagueux et al., 2018). Occupational therapists evaluate the client as a holistic being to create an occupational profile that reflects the client’s occupational history, interests, values, needs, patterns of daily living, and relevant contexts (AOTA, 2021). Furthermore, occupational therapists provide restorative therapeutic care that addresses functional outcomes as the primary focus of treatment rather than pain reduction (AOTA, 2021; Lagueux et al., 2018). This focus on functional outcomes encourages clients to focus on improvements in their occupational engagement, activities of daily living (ADLs), and quality of life. Occupational therapists also help clients with chronic pain improve self-management of their pain and health and wellness routines. An integral component of self-management involves improving client self-efficacy and self-advocacy skills, which empowers clients (AOTA, 2021). This empowerment can improve well-being, allowing individuals to find meaning in their lives alongside chronic pain.

However, evidence indicates that occupational therapy (OT) students and occupational therapists often demonstrate inadequate knowledge and inappropriate attitudes toward pain (Rochman et al., 2013).

Such inappropriate attitudes might stem from misconceptions about pain and individuals who experience it, such as the incorrect assumption that many people overreport pain or pain knowledge gaps linked to the occupational therapy curriculum (Rochman et al., 2013). While pain is usually covered in the OT curriculum, the topic of acute pain is often prioritized over chronic pain (Rochman et al., 2013). Moreover, educational content and treatment approaches for chronic pain vary significantly from those for acute pain (Rochman et al., 2013). Because of the small number of hours usually spent on pain in the OT curriculum, new graduates are often not proficient in assessing or treating chronic pain (Rochman et al., 2013). While pain is routinely evaluated, evidence suggests that health care practitioners generally have limited training and often use screening tools rather than in-depth assessments (American Medical Association [AMA] Pain Care Task Force, 2020; Scher et al., 2018). In 1996, the American Pain Society instituted the “pain as the 5th vital sign” (PS5V) campaign in an attempt to address the underassessment and inadequate treatment of pain (Scher et al., 2018). As a result of the PS5V initiative, mandatory pain screenings and the inclusion of pain-related questions in patient satisfaction surveys became widespread throughout the health care system (Scher et al., 2018). However, evidence suggests that measuring pain intensity with commonly used uni-dimensional screening tools, such as the Numeric Rating Scale, does not improve the treatment of pain or client outcomes (Scher et al., 2018).

In addition, evidence suggests that overly simplistic pain screening tools may omit critical information that allows clinicians to understand how pain impacts the client’s daily life (Giannitrapani et al., 2019). Instead, pain assessments should consider the onset and pattern of pain, the location of pain, the quality of pain, aggravating and relieving factors, previous treatments, the effects of pain on daily life, and barriers to pain assessment (Chou et al., 2016). No single assessment or screening tool can best fit all individuals who experience chronic pain, and their varying settings or contexts may warrant the need for additional pain and psychosocial assessments (Giannitrapani et al., 2019). As occupational therapists must understand the client holistically, a complete OT assessment should include an occupational profile and analysis of occupational performance and consider the physical, psychosocial, cognitive, and sensory-perceptual factors that pain affects (AOTA, 2021). Occupational therapists should also assess the presence, intensity, location, type, and frequency of pain; pain perceptions; responses to pain; coping skills; and self-efficacy (AOTA, 2021). Furthermore, treatment should be guided by the biopsychosocial model and occupational therapy-based models and frames of reference (AOTA, 2021). This case report highlights the value of a biopsychosocial approach, with emphasis on using psychosocial, occupation-focused time-use, and comprehensive pain assessments when working with chronic pain and how these assessments can be used to design psychosocially-focused OT interventions. This case report will describe the evaluation and intervention process to enhance engagement in meaningful occupations for a male, 68 years of age, with chronic pain.

Patient Information

Occupational Profile

Richard, a 68-year-old male veteran and retired electrician, lived in a manufactured home with his wife in a small rural town in the Southwestern United States. He was referred to OT because of chronic pain and safety concerns in the home. He attributed his back and neck pain to “occupational hazards.” He indicated that he had experienced multiple work and service-related injuries to his lower and upper back earlier in life, but none that had required surgery. Richard reported a significant and steady decline in overall strength and function with persistent pain beginning 6 years ago, forcing him into early retirement. Richard reported consistently high pain levels throughout the day (7/10 on the Visual Analog Scale). For

the past 2 years, he has used a front-wheeled walker (FWW) for functional mobility in his home and a Group 2 power wheelchair for mobility outside of his home.

Richard underwent multiple spinal surgeries and procedures to manage his chronic pain and progressive loss of lower and upper body strength. After his first spinal surgery at age 62 (posterior cervical laminectomy for C4-7), Richard attended post-surgical PT and reported a moderate increase in strength but no significant improvements in pain. Over the next 3 years, Richard trialed a spinal cord stimulator, corticosteroid injections, epidural steroid injections, and radiofrequency ablation; however, none of these procedures left him with long-lasting improvements. During his second spinal surgery at age 67 (posterior lumbar interbody fusion for L4-S1), he suffered a minor cerebrovascular accident (CVA), resulting in right-sided hemiparesis. After the CVA, Richard was hospitalized for 1 week, received inpatient rehabilitation (OT/PT) at a skilled nursing facility for 1 month, and home health for 4 months (OT/PT). During his home health experience with OT, Richard made significant progress with ADLs and instrumental activities of daily living (IADLs) and even resumed driving using an adaptive van. Once he could drive independently, he was discharged from home health to outpatient therapy. At this time, a little over 5 months after the lumbar fusion, Richard was still experiencing significant pain and had not resumed all of his preferred ADL/IADLs. Based on his positive experience with OT and the considerable distance from his home and the closest outpatient clinic, he sought private in-home OT services billed as outpatient treatment.

Richard lived in a rural suburb of approximately 1,500 people, and the nearest hospital was 32 miles away. He enjoyed small-town life and being self-sufficient. Richard valued time with his wife and visits with his children and grandchildren. After the surgeries and CVA, Richard spent most of his time sitting in his wheelchair and watching television with his wife. Before, Richard had enjoyed riding his utility terrain vehicle (UTV), recreational shooting, completing home repair projects, doing yard work with his wife, and working on cars. Because of significant pain, weakness, and safety concerns, Richard had stopped engaging in these preferred occupations. His wife provided increasing assistance with ADL/IADLs over the past 6 years. Richard's primary concern was to be more independent and decrease the burden on his wife.

Clinical Findings

Diagnoses

Richard was diagnosed with chronic pain syndrome, cerebrovascular accident, hemiparesis, cervical and lumbar spinal stenosis, degenerative disc disease, osteoarthritis, muscle weakness (generalized), chronic obstructive pulmonary disease, and hypertension.

Environment

At the time of his OT evaluation, Richard had completed the appropriate adaptations to his home based on the recommendations of the home health OT. He had installed grab bars in the shower and next to the toilet, purchased a shower chair for his walk-in shower, removed throw rugs, and improved the lighting at the back entrance where his ramp was located. The hallway and doorways in his home were too narrow for wheelchair access, and the client was uninterested in structural home modifications. Richard's home had a detached garage 50 feet from his back door requiring him to go outside and use his power wheelchair for access. No other significant hazards were observed.

Functional Mobility

Richard was using a FWW for functional mobility inside his home with contact guard assistance from his wife. He ambulated with decreased speed, asymmetrical step length, and reduced stance on the

right side. Although his standing activity tolerance was between 2 and 3 min, the bedroom and bathroom were less than 15 feet from the power recliner where he spent most of the day. Richard reported that pain levels significantly impacted functional mobility and balance. He required minimal assistance to stand, could not maintain balance without upper body support, and was a high fall risk. He reported six non-injurious falls in the bathroom over the last 5 months. Further inquiry about the falls indicated they occurred on days when his pain levels were very high and when he was “in a hurry” or did not wait for assistance from his wife.

ADL/IADLs

Richard and his wife reported fluctuating functional performance depending on pain levels, fatigue, and mood. Richard was independent with eating, seated self-care, and dressing using adaptive equipment. He was independent with bed mobility and often used an overhead trapeze because of pain and hemiparesis. Richard required minimal assistance with shower and toilet transfers, but he was independent with assistive equipment once on the toilet or shower chair. Richard had no concerns with bowel and bladder function. Richard’s wife completed most IADLs, such as meal preparation and cleanup, home establishment and management, and shopping, because of his chronic pain and decreased strength and endurance.

Strength/Range of Motion (ROM)

Richard’s upper extremity (UE) ROM was within normal limits. UE manual muscle test indicated 3+/5 grossly on the left and 3/5 on the right. Lower extremity (LE) manual muscle tests were grossly 3/5 on the left and 2/5 on the right. Grip strength was 40 lbs. on the left and 25 lbs. on the right.

Somatosensory

Richard’s vision was within normal limits. He wore bilateral hearing aids because of hearing impairment. Two-point, sharp/dull, and temperature discrimination was within normal limits for bilateral UEs. The Ipswich test revealed peripheral neuropathy in bilateral feet. He demonstrated minimal hyperreflexia on his right UE/LE. No vestibular concerns were observed or reported. Richard presented with dysfunctional breathing patterns.

Psychosocial/Cognition

No cognitive impairments were observed. Richard initially denied any concerns with mood. However, after his wife expressed her concerns about depression and anxiety, he admitted to feeling frustrated about his pain, having difficulty falling and staying asleep, worrying about the pain getting worse, and wishing he could do more. While Richard was friendly and motivated for therapy, he reported that he had “very little to look forward to in life other than children and grandchildren visiting.” Richard identified multiple hobbies but only spoke of them in the past tense. Throughout the initial evaluation, Richard indicated that if he could get rid of the pain, “everything else would be fine.” Although Richard’s children and grandchildren lived hours away, he lived with his wife, had close friends that visited him regularly, and had a robust social network in his small town.

Outcome Measures

Based on the findings from the initial interview with Richard and his wife and the functional assessment, the therapist chose to use additional occupation-focused and psychosocial assessments for a deeper understanding of Richard’s daily time use, pain experience, thoughts about pain, depression, and anxiety. In addition to the assessments below, information was gathered on Richard’s nutritional and sleep habits.

Occupational Experience Profile (OEP)

The OEP is a standardized time-use diary that assesses four occupational experiences during occupational performance: pleasure, productivity, restoration, and social connection (Atler & Fisher, 2022). Preliminary evidence supports the reliability and validity of the OEP scales and indicates that the tool demonstrates effective rating scale functioning (Atler & Fisher, 2022). The OEP was chosen to help Richard become aware of what he did every day and reflect on how those activities impacted his feelings, health, and well-being. The OEP findings indicated that Richard did not engage in daily activities that gave him a strong sense of pleasure or productivity. He experienced a moderate sense of energy renewal and pleasure spending time with his wife at home and a moderate sense of social connection talking to his children and grandchildren on the phone and when they visited. Richard valued his independence and experienced some pleasure and accomplishment from completing his self-care. On further reflection of the OEP's results, Richard identified what activities he felt would bring him a stronger sense of each experience (e.g., recreational shooting, riding his UTV, home improvement projects, working on his car, and spending quality time with his wife and grandchildren). His priorities were increasing experiences of pleasure (sense of enjoyment), productivity (sense of accomplishment), and connection (sense of social connectedness). This information was used to develop specific goals for occupational engagement as part of his home program and graded activity exposure during OT sessions.

Brief Pain Inventory (BPI)

The BPI was used to gather more comprehensive information about Richard's pain severity levels; activities that make his pain better or worse; the efficacy of his current pain treatments; descriptions of the pain experience; and how pain has interfered with his activities, mood, relationships, sleep, and enjoyment of life (Cleeland, 2009). The BPI has been validated for individuals with chronic nonmalignant pain and is responsive to detecting and reflecting improvement in pain over time (Tan et al., 2004). Findings from the BPI indicated that Richard experienced pain mainly in the neck and lower back, with some pain radiating down his legs. Pain levels were consistently in the 6–8/10 range, with 4/10 at best, 9/10 at worst, and 7/10 on average. Pain medications (hydrocodone/acetaminophen) helped but did not get rid of the pain. Pain interfered with general activity, mood, walking ability, relationships, sleep, and enjoyment of life. After completing the BPI, Richard could talk about his pain more descriptively and expand on how it interfered with his mood, relationships, and quality of life.

Pain Catastrophizing Scale (PCS)

The PCS is a self-report measure that assesses catastrophic thinking related to pain for adults with or without chronic pain (Sullivan et al., 1995). For chronic pain, it demonstrates excellent short-term test-retest reliability, excellent internal consistency for the full scale, and satisfactory criterion, construct, and content validity (Osman et al., 2000; Sullivan et al., 1995). The PCS was administered to learn about the types of thoughts and feelings that Richard had when he was in pain. Richard scored a 39/52, indicating a clinically relevant level of pain catastrophizing (Sullivan et al., 1995). Richard reported the highest degree of pain catastrophizing in the subscales of rumination and magnification, and this information was used to design targeted psychosocial interventions.

Beck Depression Inventory-II (BDI-II)

The BDI-II is a commonly used self-report inventory that measures the severity of depression in adolescents and adults; it was selected because this was the first time that Richard had openly discussed his mood changes and admitted increased feelings of depression (Beck et al., 1996). Evidence suggests that the BDI-II has high reliability and concurrent, content, and structural validity (Wang & Gorenstein,

2013). Richard's baseline score was 16/63, indicating mild depression/mood disturbance (Beck et al., 1996). The Ask Suicide-Screening Questions (ASQ) tool was also administered to screen for suicidal thoughts; Richard did not indicate any suicidal feelings or previous attempts (Horowitz et al., 2020).

Zung Self-Rating Anxiety Scale (SAS)

The SAS is a self-administered test that measures anxiety levels for adults who demonstrate anxiety-related symptoms (Zung, 1971). The SAS has satisfactory psychometric properties, including internal consistency reliability, concurrent validity, and internal consistency (Dunstan & Scott, 2020). Richard scored a 47/80, indicating mild anxiety levels (Zung, 1971). Based on these findings and with Richard's permission, the occupational therapist sent a coordination note to his primary care provider with the BDI-II, ASQ, and SAS results and the proposed treatment plan.

Therapeutic Interventions

One-hour OT sessions were provided at Richard's home twice a week for 3 months and then once a week for 4 months. Richard's reflections on his occupational experiences from the OEP were used to design a collaborative treatment plan. A similar format was used for each OT session. Sessions consisted of reviewing Richard's progress and adherence to his home program, setting goals for the session and upcoming week, skilled education, therapeutic exercise, and graded exposure through occupational engagement. Recognizing that successful incorporation of self-management strategies relies on behavioral change, patient education and communication strategies such as motivational interviewing (MI), pain neuroscience education (PNE), and Acceptance and Commitment Therapy (ACT) were used. These approaches are complementary and can be used simultaneously to increase occupational engagement. The occupational therapist employed MI, a client-centered counseling approach, as they reviewed daily activities and reflected on supports and barriers to Richard's progress. As Richard's treatment progressed, he demonstrated increased motivation for behavioral change and occupational engagement, and frequency decreased to once a week.

At the start of care, Richard demonstrated significant fear (kinesiophobia) that movement and exercise might worsen the pain. Based on this concern and Richard's score on the PCS, the occupational therapist addressed catastrophizing thoughts with ACT, targeting magnifying (i.e., magnifying the threat value of a pain stimulus) and ruminating (i.e., repetitive, excessive, and intrusive) thoughts related to his pain. ACT seeks to change the individual's response to pain rather than focusing on pain reduction or changing existing pain perceptions (Vowles et al., 2016). The occupational therapist encouraged and provided ways for Richard to approach unpleasant thoughts, emotions, memories, and sensations from a place of acceptance. Using Richard's identified goals and values, the occupational therapist guided Richard in developing increased psychological flexibility to allow him to set goals and take actions guided by his values rather than his fears (Harris, 2009). The occupational therapist used 5–10 min ACT activities to help Richard accept experiences instead of rejecting them because they may cause pain, choose behaviors mindfully rather than allowing automatic or conditioned responses, and take action instead of becoming "hooked" on unpleasant thoughts, memories, emotions or sensations and avoiding action (Harris, 2009). Rather than unsuccessfully trying to control his pain or the accompanying negative thoughts, Richard began to change how he responded to pain and the surrounding thoughts and focused on what he valued in life. Embedded within the education on ACT for pain, the occupational therapist also initiated ACT-based discussions on Richard's feelings of depression and anxiety. While Richard was initially hesitant, he became more comfortable talking about his feelings throughout the intervention and related well to ACT principles.

Another aspect of Richard's treatment plan was PNE. Richard had only been exposed to traditional pain education models connecting the health of tissues to pain, which can increase fear-avoidance and pain catastrophizing, leading to further pain and functional decline (Vlayen & Linton, 2000). The occupational therapist implemented PNE to help Richard understand his pain from a biological and physiological perspective, using a PNE workbook as a guide and part of Richard's home program (Louw, 2016). Using PNE metaphors and analogies to explain the neurophysiological processes of pain in lay terms, Richard began to reconceptualize pain in the context of his own pain experience. Richard changed how he spoke about his pain, demonstrated less apprehension and fear that movement would increase pain, and adopted more self-management strategies, which led to increased physical activity and occupational engagement. While Richard responded well to PNE metaphors and discussions with the occupational therapist, he struggled with reading the workbook outside of OT sessions. Rather than having Richard use the workbook on his own, the occupational therapist tasked Richard with teaching his wife what he learned about pain during his OT sessions as part of his home program. This approach helped solidify Richard's understanding of PNE principles, identify areas for further education, and opened up the discussion about his pain experience with his wife.

While OT sessions started with a discussion and skilled education, they always progressed to occupational engagement and ended with reflection. The review of Richard's goals, time use, and progress combined with ACT and PNE education naturally led Richard to move toward his values and engage in preferred occupations with the support of the occupational therapist. PNE was combined with movement and exercise to address physical capacities and optimal efficacy. Preparatory activities, such as soft-tissue mobility, therapeutic exercises, and gentle stretches, were often used before engaging in preferred occupations. During occupational engagement, diaphragmatic breathing, mindfulness, and ACT addressed Richard's fear of increased pain, improved breathing, and encouraged less compensatory movement patterns. Some of Richard's preferred occupations used for graded exposure and self-regulation during OT sessions were minor home improvement projects (e.g., fixing a leaky faucet, replacing the screen door, and replacing the broken doorbell), working on his adapted van, shooting guns, and driving his UTV. Richard found great pleasure in resuming his role as the "handyman" of the house and reducing the burden on his wife. One of Richard's main goals was to return to riding his UTV for community mobility and leisure. Together, Richard and the occupational therapist made minor modifications to the UTV (e.g., custom roll bar grab handles and an attachment for his walker) and built a step to facilitate safe transfers.

Follow-up and Outcomes

Rather than setting goals for specific pain levels, goals were related to occupational engagement, patient understanding of pain, mental well-being, and identification and use of coping strategies. As highlighted in Table 1, improvement was seen in all outcome measures. Richard was discharged from skilled OT services because he met all of his goals. It is important to note that although reported pain levels decreased, Richard still experienced back and neck pain at the time of discharge. BPI results demonstrated reduced pain intensity in all categories and reduced interference from pain on general activity, mood, walking ability, relationships, sleep, and enjoyment of life. Through increased participation in preferred occupations, Richard's gross UE and LE strength increased bilaterally, including his grip strength.

At discharge, Richard reported engaging in preferred occupations that he had not participated in for years (e.g., recreational shooting, driving his UTV, cleaning the house, home improvement projects,

and working on his car in the garage). Although his standing activity tolerance had increased, he was still using a power wheelchair to get from his house to the detached garage and for longer projects for safety purposes. When working in the garage, Richard used his power wheelchair but could stand as needed without fear that it would worsen his pain. When in the home, Richard used pacing strategies to alternate between standing with his FFW and sitting on a chair while helping with meal preparation and cleaning. Richard also demonstrated improved independence by ambulating into the bathroom, toileting, and showering using his FWW, grab bars, and a shower chair without physical assistance. One year after discharge, Richard was contacted to gain consent for this article, and he reported no falls and continued progress with his self-management program.

Regarding Richard's mental well-being, he reported that he felt more comfortable discussing his mental health with his wife and his primary care physician at discharge. Per the BDI and SAS, Richard's depression and anxiety had improved to within a typical range. Similarly, the PCS score indicated that Richard still experienced catastrophizing thoughts, but they were within a typical range. As Richard progressed through therapy, the OEP demonstrated increased engagement in activities that provided a moderate to strong sense of pleasure and accomplishment and activities outside of the home with friends, which were absent at baseline.

Table 1

Baseline and Discharge Outcomes

Assessment	Initial Evaluation	Discharge
Occupational Experience Profile	Richard did not engage in any activities that gave him a strong sense of pleasure or productivity; almost all activities completed inside	Richard engaged in at least one activity that gave him a strong sense of pleasure for every category and increased the number of activities outside of the home and with other people
Brief Pain Inventory	Average pain rating 7/10	Average pain rating 4/10
Pain Catastrophizing Scale	39/52	20/52
Beck Depression Inventory-II	16/63	10/63
Zung Self-Rating Anxiety Scale	47/80	30/80
Grip strength	Left: 40 lbs. Right: 25 lbs.	Left: 50 lbs. Right: 41 lbs.
Upper Extremity Gross Manual Muscle Tests	Left: 3+/5 Right: 3/5	Left: 4/5 Right: 4/5
Lower Extremity Gross Manual Muscle Tests	Left: 3/5	Left: 3+/5
Standing Activity Tolerance	Right: 2/5 2-3 minutes	Right: 3+/5 10 minutes

Discussion

Occupational therapists should seek to identify how chronic pain impacts occupational engagement through a biopsychosocial approach and use this information to guide the plan of care. Using an occupation-focused time-use assessment can help clients become more aware of their daily activities and promote more profound reflection on how they experience occupations. The OEP provided a helpful starting point to discuss what Richard valued and set specific occupational engagement goals. The results of Richard's initial OEP supported goal and strategy development to promote occupational change to enhance physical and mental health and well-being. While the OEP requires a commitment of time and energy from clients, Richard reported that it encouraged him to think about what he did and did not do every day and how this influenced his health and well-being. Throughout his treatment, Richard referred to the OEP and connected his lack of activities that brought him a sense of pleasure and productivity to his feelings of depression and anxiety. To promote more occupational engagement in activities that

brought him pleasure and productivity, Richard paced and prioritized activities throughout the day as a part of a pain self-management plan. This case study demonstrates that time-use assessments, especially those that encourage reflection on the experiences and meaning of occupations, may benefit individuals with chronic pain, depression, and anxiety.

As occupational therapists play an important role in the management of chronic pain, they must conduct a comprehensive assessment to understand the client as a holistic being. This assessment guides the treatment plan, allowing occupational therapists to promote functional restoration and quality of life for individuals with chronic pain (AOTA, 2021). Psychosocial assessments should be a part of OT comprehensive evaluations when working with individuals experiencing chronic pain. Individuals with chronic pain are more likely to experience psychosocial symptoms than those without chronic pain, and 33%–46% of individuals with chronic pain experience psychopathological disorders (Fine, 2011). Evidence suggests that effectively controlling and treating pain through non-pharmacologic therapeutic methods can improve activity performance, sleep, depression, and overall quality of life (Fine, 2011). Psychosocial assessments can guide treatment plans, provide a way to track changes in psychosocial symptoms, and ensure interventions are effective. Furthermore, the results of these assessments provide increased opportunities for occupational therapists to collaborate with the interdisciplinary team (e.g., informing the physician of standardized assessment results), advocate for the role of OT in addressing psychosocial concerns, provide community resources and referrals for mental health services and ensure treatment plans are holistic and address the mental health needs of clients. As demonstrated by Richard's improved ability to discuss his mental health, assessments can facilitate discussions between clients, providers, and family members and reduce mental health stigma.

This case study demonstrates that psychoeducation approaches, such as PNE and ACT, can be incorporated into OT treatment plans to help clients develop improved pain self-efficacy and coping strategies to live well with chronic pain. PNE helps individuals reconceptualize their pain by understanding the numerous physical, neurophysiological, neurobiological, and sociological components that contribute to the individual pain experience (Kim & Lee, 2020). Evidence suggests that the use of PNE for chronic pain is effective in improving pain, kinesiophobia, and catastrophizing (Kim & Lee, 2020). Rather than focusing on pain reduction, ACT seeks to change the individual's response to pain and promotes action guided by values rather than avoidance due to fear of increased pain (Vowles et al., 2016). By encouraging a persistent yet flexible pattern of values-directed behavior while still experiencing pain and discomfort, ACT enables individuals with chronic pain to engage in meaningful occupations (Vowles et al., 2016). A recent review of the literature has demonstrated that catastrophizing thoughts about pain are associated with increased pain intensity and severity, disability, emotional distress, healthcare utilization, pain medication use, and poorer outcomes following surgery (Petrini & Arendt-Nielsen, 2020). Pain catastrophizing is a modifiable characteristic that occupational therapists can assess and target with treatment. Cognitive-behavioral therapies, such as ACT, are within the scope of OT and have been shown to be effective approaches for addressing pain catastrophizing (Schütze et al., 2018). PNE and ACT can support graded exposure to meaningful occupations that may evoke fear or anxiety. Evidence indicates that graded exposure reduces pain intensity, disability, catastrophizing, and depressive symptoms for individuals with chronic pain (Roditi & Robinson, 2011).

Occupational therapists need to assess and address all aspects of occupational performance in various contexts and environments to support engagement in occupations that may be affected by pain (AOTA, 2021). Thompson and colleagues (2020) studied individuals who cope well despite chronic pain.

They found that living well with chronic pain involves a process of making sense of pain, deciding to move on with life despite pain, and flexibly persisting with occupational engagement and future plans (Thompson et al., 2020). Occupational therapists are well-suited to provide individuals with pain education and resources to make sense of what they are experiencing, guide them to reflect on their values, and offer hope through meaningful occupational engagement. Occupational therapists can support individuals with chronic pain in exploring and developing effective coping strategies and self-management plans and encouraging flexibility with how these are applied in the pursuit of valued occupations (Thompson et al., 2020). Comprehensive occupation-focused and psychosocial assessments that seek to understand the client's pain experience and its physical, mental, and social impact can be synthesized to develop an intervention plan that emphasizes engagement in meaningful occupations.

Conclusion

Given the prevalence of chronic pain and its significant impact on mental health, occupational performance, relationships, and life satisfaction, occupational therapists will inevitably work with clients of all ages and practice settings experiencing chronic pain. Although pain is routinely encountered and assessed, evidence suggests that occupational therapists have limited training and often rely on screening tools rather than in-depth pain assessments. To effectively help clients with chronic pain, occupational therapists should use their extensive knowledge of biological, psychological, social, and environmental factors surrounding chronic pain. Occupational therapists should conduct comprehensive assessments to examine these complex factors and the impact of pain on occupational engagement. Occupational therapy's unique contribution to chronic pain management is its overarching focus on restoring meaningful engagement in occupations, and a comprehensive assessment is necessary to support this approach (Lagueux et al., 2018). This case report highlights the use of psychosocial, occupation-focused time-use, and comprehensive pain assessments with an older adult with chronic pain. These assessments provided a holistic understanding of the client's pain experience and the meaning he associated with his daily occupations. Moreover, they supported goal development and treatment approaches that promoted self-management and increased occupational engagement to enhance overall health and well-being, which also resulted in a reduction of pain. The interventions used with this client targeted psychosocial factors and facilitated occupational engagement, leading to positive client outcomes and improved quality of life.

Patient Perspective

I am doing more now than I have in years. I have to admit that the pain is not entirely gone. I don't think it will ever go away completely. I still wake up with pain almost every day. However, I have learned to live better with my pain. I think that was really the point of OT. Although the pain is still there, it is not stopping me from being active like it was before. I understand my pain and how it affects me and have developed skills to keep moving forward even when the pain gets me down and depressed. I am doing things that I didn't think I would ever do again, which makes me happy. I am getting my mail from the post office, shooting guns, working in my garage, fixing things around the house, and even riding my UTV. I know I will still have bad days, but I feel confident that I can handle them with all I have learned from therapy.

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