Is Occupational Therapy Adequately Meeting the Needs of People With Chronic Pain?

The World Health Organization (2002) has identified chronic conditions such as chronic pain as increasing at an alarming rate. Given the incidence and consequences of chronic pain (Breivik, Collet, Ventafridda, Cohen, & Gallacher, 2006) and occupational therapy’s potential contribution to the quality of life of people with chronic pain, reviewing contemporary occupational therapy services for people with chronic pain is warranted. This paper deconstructs contemporary occupational therapy services and challenges current professional philosophy and practice. Ensuring that the Centennial Vision of occupational therapy as a powerful, widely recognized, evidence-based profession meeting society’s occupational needs (American Occupational Therapy Association [AOTA], 2007) is realized requires discussion to challenge and ultimately transform practice. This article discusses contemporary occupational therapy for people with chronic pain with reference to a broad range of literature from many disciplines, and it examines the success of occupational therapy services in meeting the occupational needs of people with chronic pain. It concludes with a call for action that identifies key strategies for the future development of occupational therapy research and services for people with chronic pain.

Chronic Pain in Context

The International Association for the Study of Pain has defined pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” (Merskey & Bogduk, 1994, p. 210). The development and delivery of efficacious pain management services are critical, given the human and economic costs of chronic pain. Chronic pain not only affects individuals but also has consequences for their family (Strunin & Boden, 2004) and costs for the whole of society. A national survey reported that 25% of American adults had experienced low back pain in the previous 3 mos (National Center for Health Statistics, 2006). The prevalence of low back pain has risen significantly over recent decades, with continuing high levels of disability and health care utilization (Katz, 2006). The largest survey of chronic pain in Europe (N = 46,000) revealed that nearly 1 in 5 adults live with chronic pain (Breivik et al., 2006, p. 7). The economic cost of chronic pain, both in health care spending and work force costs, is estimated to be as high as $294.5 billion per year (National Research Council & Institute of Medicine, 2001).

Consequences of Chronic Pain for Occupational Performance

The consequences of chronic pain for occupational or activity performance are vast: independence, work performance, family and social role fulfillment (Strunin & Boden, 2004), community participation, physical activity (van den Berg-Emons, Schasfoort, de Vos, Bussmann, & Stam, 2007), leisure, sexual relations, roles (Harris,
Morley, & Barton, 2003), and self-care performance are frequently disrupted or altered because of chronic pain (Breivik et al., 2006; Henricksson, 1995; Müllersdorf, 2002). A developing body of research has described the occupational experiences of people with chronic pain, such as the analysis by Borell, Asaba, Rosenberg, Schult, and Townsend (2006) of the daily occupational experiences of 6 people living with chronic pain in which being able to make choices and intentionally affect one’s engagement in daily occupations, being physically active, being engaged in occupation, and being with and doing something for others were all described as the experiences of participation.

Several studies have highlighted the creative solutions developed by people with chronic pain to successfully complete activities (Keponen & Kielhofner, 2006; Peolsson, Hyden, & Larsson, 2000). Moreover, many studies have indicated that occupation has the potential to mediate the pain experience. Neville-Jan (2003), in an autoethnographic account of living with chronic pain, described how attention to life goals can mediate pain. Fisher et al. (2007) presented a qualitative exploration of the lived experience of chronic pain in which participants described the positive effects of engaging in activity.

Occupational therapists appreciate the positive relationship between occupation and health (AOTA, 2008) and the therapeutic power of occupation (Pierce, 2001). Chronic pain significantly disrupts occupational performance (Breivik et al., 2006), and research has suggested that engaging in occupation has the potential to mediate the pain experience and to alter biological, psychological, and social factors that are known to influence the pain experience. Theoretically, little argument appears to exist against the provision of occupational therapy services for people with chronic pain. As highlighted by Neville-Jan (2003), however, the available occupational therapy literature places little emphasis on how the person with pain performs and participates in occupations and how such participation is experienced. The following discussion considers contemporary occupational therapy services for people with chronic pain and analyzes the success of occupational therapy to meet the occupational needs of people with chronic pain.

Current Occupational Therapy Services for People With Chronic Pain

An extensive review of the literature suggests that occupational therapy for people with chronic pain can be summarized as consisting of pacing; activities of daily living (ADLs); goal setting; grading activity; ergonomics; energy conservation; fatigue management; exercise; self-management of flare-ups; distraction; vocational rehabilitation; equipment provision; body mechanics and postural education; biofeedback; passive joint mobilization; heat modalities; electrical stimulation; splints; soft-tissue management; sleep hygiene; assertiveness training; stress management; creative modalities; therapeutic recreation; managing sexuality; facilitation of a peer-support network; alternative or complementary therapies; relaxation; and psychologically based management strategies, including cognitive–behavioral therapy (CBT), behavioral approaches, psychotherapeutic approaches, and ego-strengthening psychotherapeutic approaches (Brown, 2002; Chesney & Borsen, 2000; Gibson, Allen, & Strong, 2002; International Association for the Study of Pain, 1994; Mårtensson & Dahlín-İvanoff, 2006; Persson, Rivano-Fischer, & Eklund, 2004; Rochman & Kennedy-Späien, 2007; Shannon, 2002; Sim & Adams, 2003; Strong, 1990, 1996, 2002a, 2002b; Watt-Watson et al., 2004). These articles primarily describe the role of occupational therapy in working with people with chronic pain, thus reflecting contemporary service delivery rather than evaluating interventions or providing evidence of their efficacy. The strategies described convey a strong focus on education and talking interventions designed to meet an ultimate goal of improved activity performance. Intervention through occupation or activity is rarely described.

Occupational therapy has the potential to address the occupational performance disruption caused by chronic pain; however, occupational therapists’ contemporary practice may not adequately meet the occupational needs of people with chronic pain. Three different problems with the evidence base to support practice have been identified: First, a paucity of evidence exists for occupation-based practice in chronic pain; second, occupational therapists may be using inappropriate evidence when working with people with chronic pain; and third, occupational therapists appear to be ignoring a specific body of highly relevant evidence to support occupation-based practice with people with chronic pain.

Paucity of Evidence for Occupation-Based Occupational Therapy With People With Chronic Pain

Occupation as a therapeutic medium was central to the development of the profession of occupational therapy; however, the 1960s are well recognized as a time during which occupational therapy practice became increasingly influenced by a mechanistic paradigm (Kielhofner, 1992). The development of occupational science as a discipline concerned with the form, function, and meaning of occupation reflects the reemergence of occupation within occupational therapy (Molineux, 2004; Yerxa, 1990). The Occupational Therapy Practice Framework: Domain and Process (2nd ed.; AOTA, 2008) describes the domain of occupational therapy as centering on enabling clients to participate in daily life activities, achieved through the use of occupation as both ends and means (Gray, 1998). Occupational therapy as a profession is founded on the belief that engagement in occupation is essential for health and well-being (Pelouquin, 1991), yet the profession’s development has led to widespread occupational therapy practice that is not occupation based. Many eminent occupational therapists such as Yerxa (1990), Gray (1998), and Molineux (2004) have discussed this dualistic nature, including the difficulties occupational therapists experience in upholding occupation-centered approaches to treatment.

Evidence-based practice (EBP) emphasizes clinician decision making based on the best available evidence and client
preferences (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996). In reviewing the evidence base available to occupational therapists working with people with chronic pain, a familiar dilemma arises: Insufficient evidence is available for occupation-centered treatment. Evidence has supported the use of particular techniques, such as cognitive–behavioral approaches (Turk, Swanson, & Tunks, 2008). Other frequently used strategies for the resumption of activities, such as activity pacing, have little or no evidence to support their use (Gill & Brown, 2009).

If occupational therapists were to base practice with people with chronic pain solely on the available evidence, the result would be occupational therapy practice that is incongruent with professional philosophy, given the limited evidence supporting occupation-based interventions with people with chronic pain.

Henare, Hocking, and Smythe (2003) provided a phenomenological description of art as a therapy intervention for people with chronic pain in which a strong association among participation in valued occupation, maintenance of identity, experiencing oneself as competent, and being hopeful about the future was identified. Persson (1996) completed an explorative study describing an activity group intervention (six group sessions) with a small sample (N = 5) of people with chronic pain. Persson’s observations and interviews with participants corroborated that the activity group promoted playing and experiences of flow, or optimal psychological experiences. Müllersdorf’s (2002) thorough survey research found that people with chronic pain identified lifestyle and occupational issues as their most significant needs for occupational therapy intervention.

To address the limited evidence supporting occupation-based practice with people with chronic pain, occupational therapists must demonstrate the efficacy of occupation-based practice for this population. A clear and focused agenda to research occupational therapy’s unique contribution to the rehabilitation of people with chronic pain is required. In an increasingly demanding health care arena, it is vital that occupational therapy be able to defend occupation-based practice to reimbursers and clients.

### Using Inappropriate Evidence

A second issue is occupational therapists’ use of inappropriate evidence in working with people with chronic pain, in particular a heavy reliance on evidence developed in other disciplines such as psychology. The cornerstone of occupational therapy practice should always focus on engagement in occupation to support participation in context (AOTA, 2008). Developments in occupational therapy services for people with chronic pain have frequently mirrored developments within the broader context of multidisciplinary services for people with chronic pain rather than reflecting the occupational therapy’s professional philosophy. The development of mindfulness-based approaches illustrates this trend. Mindfulness approaches have been embraced by many occupational therapists working with people with chronic pain (Vowles, McCracken, & Eccleston, 2007; Walloch, 1998). Although an emerging evidence base supports mindfulness interventions in reducing pain (Carson et al., 2005), no evidence of mindfulness’s efficacy on function or activity performance currently exists (Morone & Greco, 2007). Chronic pain interferes with daily activities, and pain relief has previously been assumed to be accompanied by improvement in physical function. However, many studies have demonstrated that pain and function are only modestly correlated (Turk, 2002). Many occupational therapists have adopted mindfulness-based approaches into their practice without critically considering their role in enabling occupational performance and ultimately participation in life.

Another example of occupational therapists’ inappropriate use of research evidence is the use of evidence for multidisciplinary interventions. Current evidence-based clinical practice guidelines for the rehabilitation of people with chronic pain (Sandars, Harden, & Vicente, 2005) recommend an interdisciplinary-focused, goal-directed, time-limited rehabilitation with an emphasis on self-management. In recent years, pain management programs (PMPs) that offer this type of intervention have proliferated. PMPs typically involve an intensive intervention framework in which treatment is offered over several weeks (typically 3–5) and then withdrawn, with little or no ongoing services, to foster self-management. The clinical and cost-effectiveness of multidisciplinary PMPs have been established (Gatchel & Okifuji, 2006; Guzmán et al., 2001; van Tulder, Koes, & Bombardier, 2002).

Despite PMPs’ proven efficacy, however, the evidence does not allow us to isolate the effects of individual therapies. Moreover, the evidence base to support PMP's relies heavily on the use of CBT. A CBT approach has been identified as the most appropriate approach for multidisciplinary PMPs (Gatchel & Okifuji, 2006), and a rapidly expanding evidence base has supported the use of CBT and other psychological interventions for chronic pain management (Hoffman, Papas, Chatkoff, & Kerns, 2007; Turk et al., 2008). Occupational therapists have developed expertise in the use of CBT with people with chronic pain, as shown earlier in our review of contemporary occupational therapy. This use of psychological interventions without sufficient attention to occupational therapy’s professional domain could lead to occupational therapists’ duplicating the interventions of other multidisciplinary team members.

A further issue is the acceptability of psychological interventions to people with chronic pain. Although CBT and psychological interventions may be effective, a body of qualitative research has identified that people with chronic pain resist psychological explanations of their chronic pain. People with chronic pain are delegitimized by the suggestion that psychological factors are at play in the chronic pain experience, and “all-in-your-head” pain is associated with a high degree of stigma (Jackson, 2005).

Many studies have described health professionals’ assignment of psychological explanatory models of chronic pain (Eccleston, Williams, Rogers, & Rogers, 1997; Walker, Holloway, & Soafa, 1999). May, Doyle, and Chew-Graham (1999) discussed the frequent disparity among presenting symptoms, pathological signs.
and perceived disability of people with chronic pain. People with chronic pain interpret their pain within a biological frame of reference and understand their experience as undoubtedly real, yet the clinician may discount the presence of an organic cause and interpret the person’s experience within a psychosocial model. From the client’s perspective, the reality of their experience is doubted; ultimately, both feel the other is not willing to hear their interpretation (May et al., 1999).

The use of CBT reflects psychosocial understandings of chronic pain that are frequently incompatible with clients’ interpretations of their experiences. Many therapists have adopted the evidence to support psychological interventions without critical consideration of these interventions’ role within their professional domain or their acceptability to clients. Occupational therapists need to become critical consumers of evidence developed within other disciplines to choose the most appropriate evidence to support their practice. To date, occupational therapists’ professional practice with people with chronic pain appears to have been overly influenced by developments within other disciplines and the discipline of psychology in particular. This inappropriate use of evidence has led to practice that does not directly address the occupational needs of people with chronic pain.

Underuse of Relevant Evidence

A third significant problem in occupational therapists’ practice with people with chronic pain is the underuse of a specific body of highly relevant evidence. Occupational therapists could use research evidence for vocational rehabilitation and exposure interventions to support occupation-based interventions to meet the occupational needs of people with chronic pain. The significance of work and productive occupations is well understood within occupational science and therapy. A wealth of evidence supports the multiple benefits of paid employment and the negative consequences of unemployment (Blakely, Collings, & Atkinson, 2003).

Vocational rehabilitation for people with chronic pain is a pressing health care concern, given both the economic costs and the human costs of unemployment; however, occupational therapists have not been at the forefront of research on or delivery of vocational rehabilitation. Much is known about successful strategies and models of vocational rehabilitation, including the importance of early intervention (Waddell & Watson, 2004; Watson, Booker, Moores, & Main, 2004), communication between health care services and the person’s workplace (Kosny et al., 2006; Waddell, Burton, & Kendall, 2008), vocational rehabilitation linked to the workplace (Waddell et al., 2008), psychologically based interventions (Sullivan & Stanish, 2003), and the potential of case management models (Waddell et al., 2008). These research findings regarding successful vocational interventions for people with chronic pain have developed outside occupational therapy.

Evidence to support occupational therapy’s efficacy in the return to work of people with chronic pain is urgently needed, and occupational therapists must be creative in using evidence from a wide range of sources to support occupation-based, vocationally oriented interventions. Given occupational therapists’ high-level understanding of activity, the profession is arguably best placed to address the vocational consequences of chronic pain. Other disciplines, especially physical therapy and psychology, are rapidly establishing themselves at the forefront of vocational rehabilitation (Kendall, Burton, Main, & Watson, 2009; Sullivan et al., 2005; White, Beecham, & Kirkwood, 2008). Given the many benefits of work for people with chronic pain, occupational therapists’ practicing and researching vocational rehabilitation interventions is imperative.

The fear avoidance model is widely accepted within the chronic pain literature and offers an explanation of why some people with pain develop chronic disability. Evidence has supported the assertion that the pain experience is mediated by perceived harmfulness (Asmundson, Vlaeyen, & Crombez, 2004). People with high levels of pain-related fears develop a catastrophic interpretation that activity will cause injury and exacerbate their pain; this interpretation may lead to avoidance and, therefore, maintenance or exacerbation of the fear alongside physical deconditioning (Vlaeyen & Linton, 2000). Avoidance of activities leads to further physical and psychological consequences augmenting the disability (Philips, 1987).

A body of evidence exists for the extinction of pain-related fear through exposure (Vlaeyen, de Jong, Geilen, Heuts, & van Breukelen, 2002; Vlaeyen, de Jong, Onghena, Kerckhoffs-Hansen, & Kole-Snijders, 2002). Many studies have shown the promising potential of graded in vivo exposure to activities for the extension of pain-related fear (Vlaeyen, de Jong, Geilen, et al., 2002; Vlaeyen, de Jong, Onghena, et al., 2002). Graded exposure in vivo is described as a specific, cognitive–behavioral treatment tailored to patients with high levels of pain-related fear (Vlaeyen, de Jong, Leeuw, & Crombez, 2004), consisting of clients’ exposure to feared activities in real-life situations.

These studies present a cognitive–behavioral perspective on activity performance and have primarily been completed by physical therapists and psychologists. They also reflect the occupational understanding of health that underpins occupational therapy philosophy. If other professional groups develop expertise in the use of and generation of evidence for activity-based interventions in clients’ real-life contexts, the consequences for occupational therapy are obvious. Occupational therapists can use this body of evidence to support occupation-based interventions with people with chronic pain, augmenting it with their high-level understanding of occupational performance.

To ensure that developments within occupational therapy are consistent with the domain of the profession, critical attention to occupational therapy philosophy is required. Occupational therapists must become critical consumers of research evidence and make use of the most appropriate evidence developed outside of the profession. Much high-quality, relevant research developed within other disciplines can be used to support occupation-based practice with people with chronic pain, such as the research developments in vocational rehabilitation and studies of in vivo exposure interventions.
Call for Action

On the basis of the published literature, occupational therapists may not be adequately meeting the occupational needs of people with chronic pain. Occupation-based practice likely exists in this clinical area, and undoubtedly many occupational therapists internationally are meeting the occupational needs of their clients with chronic pain. However, academic journals have not reported this in a manner that supports EBP. No health care discipline will develop or continue to be reimbursed without evidence of its efficacy. Occupational therapists’ current situation within multidisciplinary teams is tenuous. Current practice appears to be out of line with the professional philosophy and domain of practice, an overreliance on interventions that are not unique to the profession exists, and other professions are establishing themselves in addressing the occupational needs of people with chronic pain.

Two actions are necessary to ensure the growth and development of occupational therapy services for people with chronic pain: (1) Researchers must develop evidence of efficacy, and (2) clinicians need to develop expertise in evidence-based practice. Failure to act may result in occupational therapy’s ceasing to be considered a central element in rehabilitation services for people with chronic pain. Ultimately, people with chronic pain will pay the greatest costs, missing opportunities to experience health and well-being through occupational engagement.

**Action 1: Develop Evidence to Demonstrate the Efficacy of Occupation-Based Interventions**

Therapists urgently need to reflect on and review current practice to ensure its congruence with the available evidence and the professional domain. Current practice as described in the available literature has a long-term goal of improved activity performance; however, intervention is overly technique focused. Little evidence has demonstrated the efficacy of occupation-based practice with people with chronic pain. To address this evidence gap, therapists must research the outcomes of occupation-based interventions. To enable this necessary research, occupational therapists must first develop current practice in line with the professional domain to meet their clients’ occupational needs. Therapists must become skilled in the use of occupation and fluent in the language of occupation. To use occupation effectively, therapists should use the wealth of literature published in the discipline of occupational science to theoretically support the use of occupation in occupational therapy practice. To review and change occupational therapy practice in this way, continuing professional development strategies are required along with the development of expertise in EBP described in Action 2. In researching occupation-based practice, occupational therapists should consider the full range of research methods available to them.

Ultimately, randomized controlled trials are required to prove the efficacy of occupation-based interventions. To develop and run randomized controlled trials, occupational therapists must be creative in developing multicenter studies and forming international alliances. Occupational therapists must engage with the contemporary research agenda and become knowledgeable about research grant funding, because these types of studies require considerable financial support. All therapists must begin to view themselves as researchers in this clinical area and form special interest groups to support each other in completing research. Alongside outcome studies, qualitative accounts of participants’ experiences of occupation-based interventions are also required to investigate these interventions’ acceptability to clients. Occupational therapists must concentrate their research efforts on demonstrating the efficacy of their unique professional contribution.

**Action 2: Develop Expertise in Evidence-Based Practice**

Although EBP has been discussed within occupational therapy for many years and a good awareness of the term exists, the true meaning of EBP is not being realized in occupational therapists’ practice with people with chronic pain. EBP emphasizes clinician decision making based on best available evidence and stresses the central

**Conclusion**

This discussion critiques and challenges the professional practice of occupational therapy with people with chronic pain, who make up a significant proportion of the population internationally. The consequences of chronic pain for both individual people and society as a whole cannot be overstated. Current occupational therapy professional practice and its evidence base have gaps. Descriptions of contemporary occupational therapy practice largely do not reflect the use of occupation as both ends and means (Gray, 1998). These gaps must be addressed if future practice is to embrace an occupational perspective of health. Occupational therapists urgently need to generate evidence of the efficacy of occupation-based interventions for people with chronic pain and become experts in using evidence to support practice. This article is a red flag to
the profession; if occupational therapists do not act quickly to address the limitations of current practice, other professional groups will continue to develop expertise in the use of activity. If occupational therapists complacently continue to practice without attention to their professional domain, the opportunities to develop occupational therapy in line with the occupational needs of people with chronic pain will eventually no longer exist.

The Centennial Vision (AOTA, 2007) reflects the occupational therapy’s core concern: the health and well-being of all members of society. The human and occupational consequences of chronic pain are vast. In this article, we challenge occupational therapy to transform practice to optimize the occupational performance and ultimately the participation of people with chronic pain. ▲

References


