

# Development of a Guided Internet-based Psycho-education Intervention Using Cognitive Behavioral Therapy and Self-Management for Individuals with Chronic Pain

From the \*School of Nursing, Department of Anesthesiology and Perioperative Medicine, Queen's University, Kingston, Ontario, Canada; †Departments of Psychology, Anesthesiology, and Urology, Queen's University, Kingston, Ontario, Canada.

Address correspondence to Jennifer Perry, PhD, School of Baccalaureate Nursing, Office 44290, St. Lawrence College, 100 Portsmouth Avenue, Kingston, Ontario, Canada, K7L 5A6. E-mail: [jperry@sl.on.ca](mailto:jperry@sl.on.ca)

Received June 19, 2015;  
Revised October 6, 2016;  
Accepted December 23, 2016.

Financial support for the conduct of the research was provided by the Freda Paltiel Award for Women's Health and Development.

The authors declare no conflicts of interest related to this article.

Jennifer Perry conducted this research to fulfill the requirements of her PhD. All other authors gave input on the research proposal and supervised the conduct of the research project. Jennifer Perry drafted the article. All authors contributed to and revised the article and gave final approval of the version to be submitted.

This article has not been published previously, is not under consideration for publication elsewhere, has been approved by all authors and by Queen's University, and will not be published elsewhere in the same form, in any language, without written consent from the copyright-holder.

The authors confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described is not identifiable and cannot be identified through the details of the story.

1524-9042/\$36.00

© 2016 by the American Society for Pain Management Nursing  
<http://dx.doi.org/10.1016/j.pmn.2016.12.004>

■■■ Jennifer Perry, PhD,\*

Elizabeth G. VanDenKerkhof, PhD,\*

Rosemary Wilson, PhD,\* and Dean A. Tripp, PhD†

## ■ ABSTRACT:

Evidence-based chronic pain treatment includes nonpharmacologic therapies. When addressing barriers to treatment, there is a need to deliver these therapies in a way that is accessible to all individuals who may benefit. To develop a guided Internet-based intervention for individuals with chronic pain, program content and sequence of evidence-based treatments for chronic pain, traditionally delivered via in-person sessions, were identified to be adapted for Internet delivery. With consideration to historical barriers to treatment, and through use of a concept map, therapeutic components and educational material were situated, in an ordered sequence, into six modules. An Internet-based chronic pain intervention was constructed to improve access to evidence-based chronic pain therapies. Research using this intervention, in the form of a pilot study for intervention refinement, was conducted, and a large-scale study to assess effectiveness is necessary prior to implementation. As clients may face barriers to multimodal treatment for chronic pain, nurses could introduce components of education, cognitive behavioral therapy and self-management to clients and prepare them for the “work” of managing chronic pain, through use of this Internet-based intervention.

© 2016 by the American Society for Pain Management Nursing

Chronic pain is a significant issue at both individual and societal levels (Choiniere et al., 2010; Guerriere et al., 2010; Kronborg, Handberg, & Axelsen, 2009), and access to evidence-based timely care is a treatment challenge (Bromberg et al., 2012; McCracken, MacKichan, & Eccleston, 2007; Peng et al., 2007). There is a need to find innovative ways to deliver effective therapies in an accessible way, with little cost to individuals who may be struggling financially due to the economic burden of chronic pain. The Internet is a resource that has not been fully explored for this purpose. Through delivery of guided, Internet-based cognitive behavioral therapy (CBT) and self-management (SM) interventions, overall quality of life for individuals with chronic pain may be improved.

## AVAILABILITY OF PSYCHOLOGICAL RESOURCES

The most effective treatments for chronic pain involve an interdisciplinary approach (Jeffery, Butler, Stark, & Kane, 2011; Scascighini, Toma, Dober-Spielmann, & Sprott, 2008; Turk, Wilson, & Cahana, 2011). Pharmacologic treatment is most commonly utilized, but other treatments are less consistently accessed. In particular, psychological interventions for chronic pain management are not readily available at a primary care level due to funding, time constraints, and lack of adequately trained staff (Jeffery et al., 2011).

As individuals with chronic pain require more time per office visit, little time is left for education and nonpharmacologic interventions (Jeffery et al., 2011). When psychological resources are available, they may be more readily accessed in urban centers, leaving some individuals a long distance to travel, exacerbating pain along the way (Burnham, Day, & Dudley, 2010; Tollefson & Usher, 2006). Enhanced availability of alternative strategies to educate individuals with chronic pain in SM and CBT techniques could engage more individuals at earlier time points.

## EVIDENCE-BASED INTERVENTION COMPONENTS

### Cognitive Behavioral Therapy

CBT is a treatment approach that can be used to assist people with pain to realize that they can have an active role in managing their pain and its associated issues (Novy, 2004; Turk, Swanson, & Tunks, 2008). This therapy also helps individuals with chronic pain to respond more effectively to stressors by learning and applying new behavioral responses to pain (Novy,

2004). Basic therapy components include education, skills acquisition, cognitive and behavioural rehearsal, and maintenance (Gatchel & Rollings, 2008; Kerns, Sellinger, & Goodin, 2011; Novy, 2004). The interdisciplinary approaches to chronic pain management that include CBT are effective regardless of type and location of pain (Eccleston, Morley, & Williams, 2013; Hoffman et al., 2007; Kerns et al., 2011; Sveinsdottir, Eriksen, & Reme, 2012; Williams, Eccleston, & Morley, 2012).

### Self-management

SM empowers the individual to become a partner in making decisions about health care both in day-to-day activities and with a view to long-term health. Core SM skills include identifying and using resources, problem-solving, decision-making, forming partnerships with providers, and taking action to manage health (Lorig & Holman, 2003). Education and behavioral strategies are part of the process of delivering SM skills (Lorig & Holman, 2003; Mann, LeFort, & VanDenKerkhof, 2013).

Pre- and posttest analyses and randomized controlled trials have documented that in both the short and long term, individuals with chronic pain who participate in SM programs report improved function, decreased pain, and increased self-efficacy (Farrell, Wicks, & Martin, 2004; Redondo et al., 2004; Reid et al., 2008). Community-based programs for chronic pain self-management have demonstrated short-term improvements for the treatment group in pain, dependency, vitality, role functioning, life satisfaction, self-efficacy, and resourcefulness as compared to wait list controls (Foster, Taylor, Eldridge, Ramsay, & Griffiths, 2007; LeFort, Gray-Donald, Rowat, & Jeans, 1998).

### Education

Patient education has been studied as a component of CBT and SM programs (Berman, Iris, Bode, & Drengenberg, 2009; Chiauzzi et al., 2010; Gremeaux & Coudeyre, 2010; Jeffery et al., 2011; Morlion, Kempke, Luyten, Coppens, & Van Wambeke, 2011), and also independently in chronic pain research (Brox et al., 2008; Clarke, Ryan, & Martin, 2011; Meeus, Nijs, Van Oosterwijck, Van Alsenoy, & Truijen, 2010; Van Oosterwijck et al., 2011). There is evidence that education has had a positive impact in reducing sick leave and short-term disability as compared to usual care (Brox et al., 2008; Clarke et al., 2011; Meeus et al., 2010; Van Oosterwijck et al., 2011) and has produced small but positive results in pain and pain beliefs even as compared with pacing and SM education (Meeus et al., 2010).

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات