Clinician's Commentary on Tatham et al.¹

Every hour of every day, approximately 21 people in Canada will be diagnosed with some form of cancer and 9 will die from the disease.² Breast cancer in women specifically accounts for 26% of new cancer cases and is second in mortality rate at 14%.³ On a positive note, the death rate for people with breast cancer has been declining, showing a reduction of >30% since 1986.³ Now that more people are surviving breast cancer, we need to focus attention on maximizing their quality of life after cancer. Throughout their course of treatment, people with breast cancer may undergo a combination of chemotherapy, radiation, and/or surgery, all of which may lead to shoulder dysfunction and pain. Common impairments or complications of treatment include restricted range of motion (ROM), weakness, scar adhesion, pain, loss of function and independence, and lymphedema.⁴ Shoulder pain related to breast cancer may be attributed to muscle tightness, tendinitis, adhesive capsulitis, axillary cording, neuropathies, bony metastases, or edema.⁵ A 2008 study by Lee and colleagues found that between 9% and 68% of people with breast cancer reported shoulder or arm pain.⁶ In another study by Swisher and colleagues, 52% of 76 participants reported experiencing pain following cancer treatment;⁷ participants also had a mean score of 24 on the Disabilities of the Arm, Shoulder and Hand (DASH) outcome measure, indicating mild to moderate disability.⁷ A Cochrane review by McNeely and colleagues found that physiotherapy intervention may have positive effects on postoperative shoulder ROM in women with breast cancer, but there is less evidence to support physiotherapy intervention for reducing shoulder pain in this population.⁸

The article by Tatham and colleagues¹ identifies these limitations and gaps in current research and highlights the fact that current physiotherapy practices may not be adequately controlling shoulder pain in people with breast cancer. Although current research suggests that physiotherapy exercise and manual therapy interventions may be effective in managing this population,⁸ we do not know to what extent this is the case or which aspects of the physiotherapy intervention have the greatest impact. As clinicians, we should capitalize on this opportunity for future research to develop best practice guidelines to maximize function, decrease reported pain, and improve quality of life for people with breast cancer. Tatham and colleagues' article also recognizes that not all pain outcome measures in common use are able to properly capture, qualify, and/or measure pain in this population.¹

Tatham and colleagues conducted a multi-database search and obtained results from six studies examining patients with breast cancer who underwent physiotherapy intervention, which they reviewed systematically to determine the efficacy of these interventions in reducing shoulder pain.¹ The interventions analyzed in these studies included varying combinations of shoulder/scapular strength and stability exercises, posture education, massage, ROM, general conditioning exercises, and/or lymphedema management. The studies included in the review were those accessible online in which participants were adults (>18 years old) with a primary diagnosis of breast cancer at any point in treatment and which also met the following criteria: a randomized controlled trial; interventions including any form

of exercise or physical activity; and outcome measures that included a measure of shoulder/chest pain, alone or in combination with other outcomes. Secondly, Tatham and colleagues acknowledged inconsistencies with respect to pain outcome measures: four of the six included studies used a visual analogue scale (VAS), one of which also used the Brief Pain Inventory (BPI), while the other two studies relied solely on oral self-reports of pain.¹

Pain is a dynamic experience that may not be adequately captured by a clinician at any one time point. In addition, unidimensional assessments of pain such as VAS may not be effective in identifying different types and origins of pain and may be unable to tease out multiple pain sources. Are we not able to address our patients' pain, or are we simply not adequately identifying it? As Tatham and colleagues note, scales such as the BPI may give a more comprehensive view by evaluating both the intensity of the pain and its impact on function and quality of life, as well as accounting for pain trends over time.¹ At the Princess Margaret Cancer Centre, the Edmonton Classification System for Cancer Pain (ECS-CP) is frequently used on the palliative floor because it analyzes not only pain but other symptoms that may cause distress or affect a patient's perception of pain symptoms.⁹ Pain is best described as an experience rather than a static symptom, as it moves along a continuum and may be dramatically altered by the surrounding environment. People with breast cancer may not be able to adequately determine the source of the pain they experience, or their interpretations of pain may be influenced by their coping skills and their past experiences of pain. They may also become focused on other aspects of treatment, so that pain becomes a secondary symptom.

Tatham and colleagues' article should stimulate us, as clinicians, to critically appraise the physiotherapy interventions currently being implemented for people with breast cancer. Clinicians should also be encouraged to thoughtfully analyze how we obtain and interpret pain reports, not only in the oncology population but with any of our patients or clients, to maximize efficiency of treatment and quality of life.

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