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Physiotherapy effective in managing osteoarthritis - a common cause of severe chronic pain

Osteoarthritis contributes to the burden of physical disabilities globally, as it is the most common cause of severe chronic pain, impacting the function of millions of people. It is more commonly reported by women who are obese and physically inactive.

Now, a study by the University of Cape Town's (UCT) doctoral graduate Candice Hendricks suggests that physiotherapy is an effective non-pharmacological management strategy that improves functional limitations, pain, health-related quality of life, blood glucose levels and self-efficacy in women with osteoarthritis and comorbidities.

Titled, *Osteoarthritis in Women living in Cape Town: characteristics and the effects of a non-pharmacological intervention*, the study was conducted in two phases.

The first phase was conducted at a local primary health care clinic (PHCC) in Mitchells Plain to gather information regarding the prevalence of osteoarthritis in 803 women, characteristics of people affected by this condition, pain severity and pain interference, physical activity levels, body mass index, health-related quality of life and functional ability in various activities. The study found a high proportion of women suffered from chronic joint pain, of which 43.4% had diagnosed osteoarthritis. In addition, 50% had hypertension and 23% had diabetes mellitus type 2.

Commenting on the findings, Hendricks said most women experienced moderate pain severity, moderate pain interference with general activity, work and walking.

"Most of these women were obese, had low levels of physical activity, significantly lower health-related quality of life scores, and lower World Health Organization Disability Assessment Schedule 2.0 scores indicating moderate difficulty with walking, standing, household responsibilities compared to women without these diseases.

"Women who attended the PHCC presented with multimorbidity that negatively impacted their health-related quality of life and physical functioning," she said.

The information obtained from this phase was used to formulate an evidence-based intervention using combination therapy consisting of exercise, health education and self-management strategies that were contextually relevant to the participants.

The second phase was implementing the developed intervention using a randomised controlled trial at Mitchells Plain PHCC. In this phase, 73 women who participated in phase one, were approached and invited to participate in the study. The experimental (EXP) group had undergone a 6-week intervention based on exercise, health education and self-management strategies in a group format for once a week for two hours that was facilitated by a trained physiotherapist. The control (CON) group had continued with usual care at the PHCC. Various outcome measures were measured at baseline, after the 6-week intervention and at 12 weeks follow-up.

Phase two of the study found that women who participated in the EXP group had a significant improvement in the primary outcome of function and physical functional tests (walking, sit-to-stand, climbing stairs), in pain severity and pain interference, blood glucose levels, health-related quality of life and self-efficacy compared to the women in the usual care CON group. Based on the findings, Hendricks said there is a need for physiotherapists to implement a non-pharmacological intervention, consisting of self-management principles, education, and exercise in women with osteoarthritis and comorbidities at primary health care level in Cape Town.

"A protocol for the assessment and treatment of osteoarthritis and comorbidities in women attending PHCCs in Cape Town should be developed for use in the clinics by the physiotherapists and other health professionals," she said.

Hendricks added: "This protocol should provide specific guidelines for the assessment of osteoarthritis and associated comorbidities using appropriate and reliable standardised outcome measures to be used for baseline and follow-up measurements for effectiveness of treatment."

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Issued by: UCT Communication and Marketing Department

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