



# Waves warm water exercise

An evaluation of the Arthritis and Osteoporosis Victoria Waves Program

A RESEARCH PROJECT PLAIN LANGUAGE SUMMARY

**Researchers:** Health Services Research Unit, Monash University, and Arthritis and Osteoporosis Victoria

**Project timeline:** 2013-2014

**Explanatory note:** In 2018 Arthritis and Osteoporosis Victoria become Musculoskeletal Australia. For the purposes of this summary, Arthritis and Osteoporosis Victoria will continue to be used.

## Background

Currently there more than 6 million Australians living with musculoskeletal (MSK) conditions in Australia<sup>i</sup>. These conditions include osteoarthritis, rheumatoid arthritis, osteoporosis and back pain.

Exercise in warm water is a common strategy used by people with MSK conditions to ease pain and improve the mobility of their joints. Research has supported the effectiveness of warm water exercise to help manage these conditions<sup>ii</sup>.

Arthritis and Osteoporosis Victoria (A&OV) offers a number of exercise programs designed to provide health and social benefits to people with MSK conditions, including warm water exercise. Programs such as the Waves warm water exercise program and the warm water exercise classes run by A&OV peer support groups are very popular with consumers and have been running for many years.

This study was part of a three-stage project that also incorporated:

1. a systematic review of literature<sup>ii</sup>: this analysis of the published research on warm water exercise for people with MSK conditions highlighted what is currently believed to be the best-practice when running warm water exercise classes, and
2. delivery of this information to Waves leaders in interactive workshops.

The third stage of the project specifically looked at the Waves warm water exercise classes delivered by A&OV. It investigated if there were any changes in pain, joint stiffness, physical function and health-related quality of life reported by people who have participated in these classes.

## What is the Waves program?

At the time of this study, the Waves program was a peer led warm water exercise class for people with arthritis and other MSK conditions. Classes provided a range of aerobic, strength, flexibility and balance exercises. Trained volunteers led classes at pools across Victoria. Most leaders also had a MSK condition.

## The study

The aim of this study was to see if people participating in Waves classes experience similar improvements to those reported in published studies.

People taking part in the study were separated into two groups. The first group (43 people) took part in Waves classes. The second group (39 people) were those who were not participating in Waves classes or any other formal exercise programs at the time of the study. This was the control group. Control groups are made up of people similar in all aspects to the people in the treatment group except they do not receive treatment – in this case the Waves classes. This allows researchers to evaluate whether the treatment made any difference.

Both groups were surveyed at the beginning of the study and then 12 weeks later.

Changes in pain, joint stiffness, physical function and health-related quality of life over the 12-week period reported by the Waves participants were compared with those same outcomes reported in control group.

### Findings

It was found that:

- participation in Waves classes achieves minor improvements in symptoms and functional impairment
- greater improvements may be achieved if Waves classes are more frequent, participants were encouraged and helped to do warm water exercise outside of classes (self-practice) and class attendance improved
- Waves participants perceive that the classes are enjoyable and an effective strategy for managing their condition
- suggestions for improvement related to increased consistency of class content across leaders, better monitoring of effects experienced after Waves classes and communicating the purpose and safety of balance exercises.

This study provides a comprehensive overview of the effectiveness of the Waves warm water exercise program provided by A&OV. The findings of this study suggest that the Waves program can decrease the burden of arthritis and other MSK conditions by decreasing pain and joint stiffness, and improving physical function.

### How we can help

Call our MSK Help Line and speak to our nurses. Phone 1800 263 265 or email [helpline@msk.org.au](mailto:helpline@msk.org.au).

We can help you find out more about:

- arthritis and musculoskeletal conditions
- ways to live well with these conditions
- managing your pain
- upcoming webinars, seminars and other events.

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<sup>i</sup> Arthritis and Osteoporosis Victoria. A problem worth solving. The rising cost of musculoskeletal conditions in Australia. Melbourne: A&OV; 2013.

<sup>ii</sup> Health Services Research Unit MU. A review of best-practice evidence for warm water exercise for people with musculoskeletal conditions: A systemic review of the literature 2013. Melbourne: Arthritis and Osteoporosis Victoria; 2013.

*Written April 2015, updated June 2018*