

## Introduction

Lifetime prevalence of musculoskeletal (MSK) disorders in professional instrumental musicians: 62 to 93% [1].

Pilot randomized controlled trial (RCT) evaluating the effect of a rehabilitation program comprising exercise and education: decrease in musicians' symptoms [2].

Yet: program could be better adapted to the local population.

## Objectives

- 1) To identify **facilitators and obstacles** to the implementation of the initial program by realizing **focus groups** to collect in-depth comments from musicians and stakeholders;
- 2) to adapt the program to the local context.

## Methods

### Focus Groups and Interviews

Population: musicians from the pilot study, an orchestra conductor, orchestra administrators and the director of the local conservatory of music.

Content: Questions based on the Consolidated Framework for Implementation Research (CFIR) [3].

Qualitative analysis: according to thematic content.

## Program Adaptation

Experts in physiotherapy, music, knowledge transfer and educational technology adapted the various program components following results from the focus groups.

- Consultation of a physiotherapist with expertise in exercise prescription
- Educational technology team: analysis, design, development, implementation, evaluation

## Results

### Focus Groups

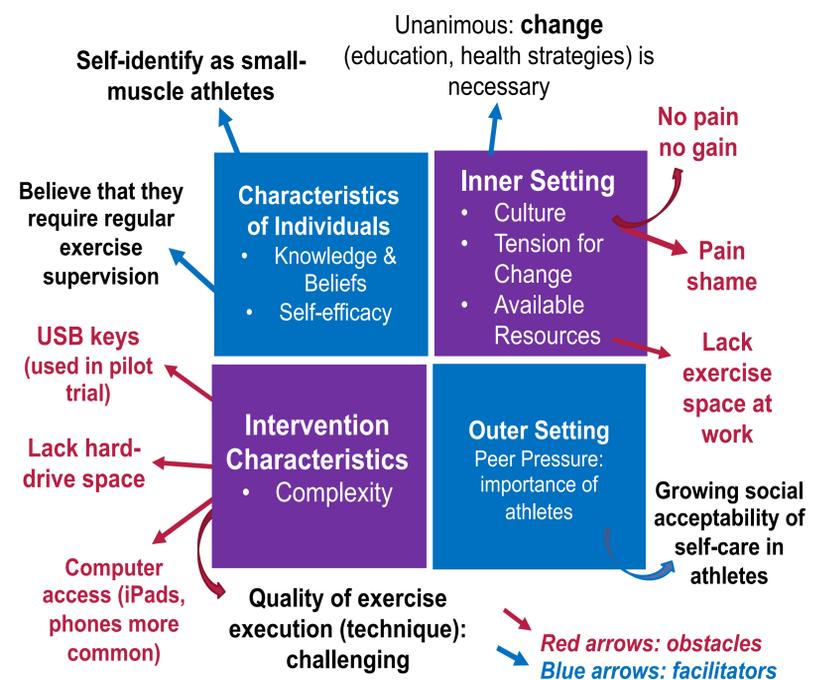
Four 1-hour focus groups, 2 interviews:

- Pilot exercise group – professionals (n=5)
- Pilot exercise group – students (n=3)
- Pilot control group – professionals (n=5)
- Orchestral administrators (n=4)
- Orchestra conductor (n=1)
- Conservatory director (n=1)

**Key factors** identified by participants:

- Flexibility
- Accessibility
- Supervision
- Need for change

## Focus Group Results - CFIR

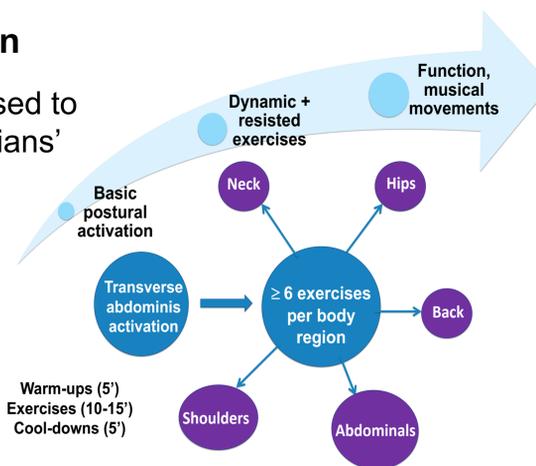


## Program Adaptation

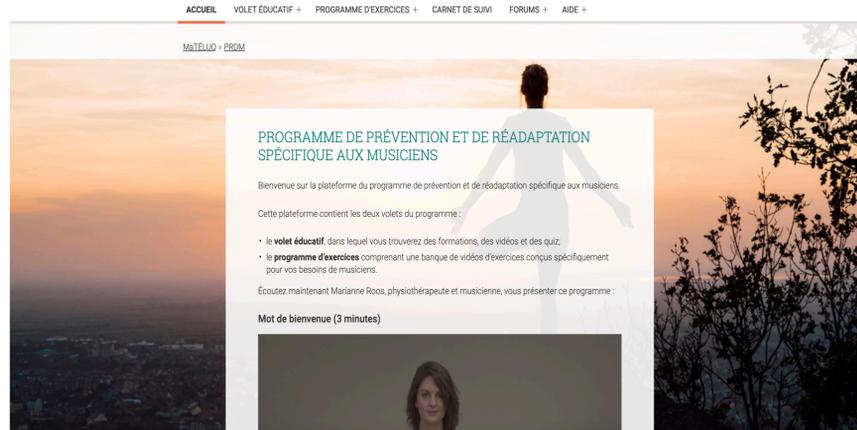
Online platform proposed to best respond to musicians' needs

Platform components:

- Welcome page
- Exercise program: 50+ exercise videos → PT & musician
- Educational program: narrated PowerPoint presentations, YouTube videos, short videos by the treating physiotherapist → on injury prevention and management, healthy lifestyle, mindfulness and relaxation
- Forums: 1) questions from participating musicians to the treating physiotherapist, 2) organization of group exercise sessions
- Follow-up sheets
- Help page (technological support)



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Further program components:

- Bi-monthly supervised exercise sessions (5 to 6 musicians per session)
- Live educational presentations (1 to 3)
- Motivational and informative e-mails and messages in the forums

## Conclusion and future directions

Focus group results suggest that the implementation determinants of the rehabilitation program rely mainly on the **inner setting** and the **intervention characteristics**, with **characteristics of individuals** playing a lesser role.

An **online platform** was developed to address the above-mentioned domains, specifically the complexity of the intervention and the need for change.

The rehabilitation program and appreciation of the online platform are currently being evaluated with a randomized controlled trial, with positive preliminary results.

## References

- [1] Kok, L.M. et al. The occurrence of MSK complaints among professional musicians: a systematic review. *Int. Arch. Occup. Environ. Health.* (2016). [2] Roos, M. and Roy, J.-S. Effect of a rehabilitation program on performance-related MSK disorders in student and professional orchestral musicians: a randomized controlled trial. *Clinical Rehab.* (2018). [3] Damschroder L.J. et al. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci.* (2009).

## Acknowledgements

This work is funded by a joint grant from the Réseau provincial de recherche en adaptation-réadaptation and the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (REPAR-IRSST).

Marianne Roos is supported by the Fonds de recherche du Québec - Santé (FRQS) and the Ordre professionnel de la physiothérapie de Québec (OPPQ).