HOW DO PHYSICAL THERAPISTS TREAT PATIENTS WITH KNEE OSTEOARTHRITIS AND WHAT DRIVES THEIR CLINICAL DECISIONS? A POPULATION-BASED CROSS-SECTIONAL SURVEY WITH FLORIDA PHYSICAL THERAPISTS.

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INTRODUCTION
Osteoarthritis is the most common form of joint disease and the leading cause of pain in the elderly. The knee is the most commonly affect joint in the lower limbs, and it is strongly associated with physical disability. As life expectancy increases, the prevalence of knee osteoarthritis is also expected to increase. Because there is currently no effective disease-modifying treatment for knee osteoarthritis, management of this disease is mainly symptomatic.

Physical therapy plays an important role in the symptomatic treatment of knee osteoarthritis. Current clinical practice guidelines recommend physical therapy treatment modalities for knee osteoarthritis treatment such as cardiovascular or strengthening exercise, manual therapy, thermal agents, and transcutaneous electrical nerve stimulation. These recommendations mainly concern individual physical therapy intervention. In clinical practice, however, physical therapists may use a single intervention or, as commonly done, a combination of two or more interventions when treating patients with knee osteoarthritis.

There is some indication that physical therapists do not closely adhere to recommendations from clinical practice guidelines when treating patients with knee osteoarthritis. The low representativeness of interventions investigated in clinical studies may be one of the main reasons for such disparity. It is unclear whether physical therapists in the US adhere to recommendation from clinical practice guidelines, and what determines adherence. The purpose of this study is to conduct a survey to understand how physical therapists treat patients with knee osteoarthritis, and what drives their clinical decision making.

METHODS

Study design
This population-based cross-sectional survey study will be submitted for ethics review by the Florida International University Institutional Review Board.

Target population
The survey will be conducted with licensed physical therapists members of the Florida Physical Therapy association (FPTA). Most licensed physical therapists in Florida (X%) are members of the FPTA. The survey will be announced in the website of the FPTA. An
invitation for physical therapists to complete the survey, including a brief description of its relevance and objectives, will be posted in the FPTA website for approximately 3 months.

**Data collection**

We developed a survey based on information from a literature review and discussions with experts in the field, including researchers who had previously conducted surveys regarding physical therapy interventions among physical therapists. We pilot-tested our survey with a convenience sample of 20 doctoral students of physical therapy, who gave feedback on content, form, and time needed to complete the survey. A copy of the survey is provided in Appendix 1. The survey has 12 items distributed across five sections. The first section will gather information on physical therapists general demographic characteristics and general clinical expertise as well as clinical expertise specific to osteoarthritis management. The second section assesses beliefs about the clinical importance of the following interventions for the treatment of knee osteoarthritis: manual therapy, therapeutic exercise, aquatic exercise, electrotherapy, ultrasound, ice, heat, wedge insoles, knee brace, kinesio tape, education, and rest. Beliefs about clinical importance will be assessed in a Likert-type scale with the following options: ineffective, somewhat effective, effective, very effective. The third section concerns the frequency physical therapists use each of the interventions listed above to treat patients with knee osteoarthritis. Frequency of intervention will be assessed in a Likert-type scale with the following options: never, rarely, sometimes, often. The fifth section will investigate adherence of physical therapists to evidence-based practice. We will distribute the survey electronically using Qualtrics (http://www.qualtrics.com).

**Data analysis**

We will tabulate data on demographics and clinical expertise to describe our study population, using percentages, means, and standard deviations as appropriate. We will conduct multiple imputation to impute missing answers. We will conduct linear regression models to quantify the association between the outcomes ‘beliefs about the clinical importance’ and ‘actual use of physical therapy intervention’ with the explanatory variables ‘physical therapists personal characteristics’, ‘clinical expertise’, and ‘adherence to evidence-based practice’. The alpha level will be set at 0.05. We will
perform all analyses using STATA 13 (StataCorp LP, College Station, TX) statistical software.