

# Service provider and user differences in beliefs, barriers and enablers to exercise interventions for hip and knee osteoarthritis

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## BACKGROUND

Implementation of **exercise for hip and knee osteoarthritis (OA)** is suboptimal in clinical practice, despite high quality evidence for its effectiveness. Patient perceptions are highly influenced by messaging from general practitioners (GPs) and other healthcare professionals and myths regarding the safety of exercise for chronic joint pain are prevalent. In the pursuit of implementing care according to clinical guidelines, the objectives were:

- 1) to determine any **differences in beliefs** regarding exercise for hip and knee OA among **GPs, physiotherapists (PTs) and people with hip and knee OA (PwOA)** in Ireland.
- 2) to examine **perceived barriers and enablers** to exercise interventions across groups.

## METHODS

Three tailored online cross-sectional surveys were used to investigate beliefs, barriers and enablers for GPs, PTs and PwOA respectively between March and September 2021.



Surveys were adapted from previous research [1-3] and were reviewed by members of a public and patient involvement steering committee prior to distribution. **All surveys were advertised via social media (Twitter, LinkedIn), newsletter, word of mouth and professional networks** including the Irish College of General Practitioners (n=3152), the Irish Society of Chartered Physiotherapists (n=2022).

PwOA were asked to respond to questions based on their **most bothersome hip or knee joint that they did not have joint replacement surgery on**. Six beliefs statements were rated on a 5-point Likert scale from strongly agree to strongly disagree and collapsed to a binary scale (agree vs. disagree/neither).

**Analysis:** Chi-square tests to assess differences in agreement with Bonferroni adjustment for between-group differences. Odds ratios (95% confidence intervals) were used to assess odds of agreement between service users and providers for two preferential statements related to effectiveness and severity.

## RESULTS

Of GPs who responded (n=161), 54% were female and 62% were qualified for >10 years. Of PTs (n=162), 76% were female and 74% were qualified for >10 years. Of PwOA (n=98), 77% were female, with 55% in the 50-69-year category and 55% who were most bothered by their knee.

**Table 1. Differences in agreement with statements between general practitioner (GP; n=161), physiotherapist (PT; n=162) and people with hip and knee osteoarthritis (PwOA; n=98) groups.**

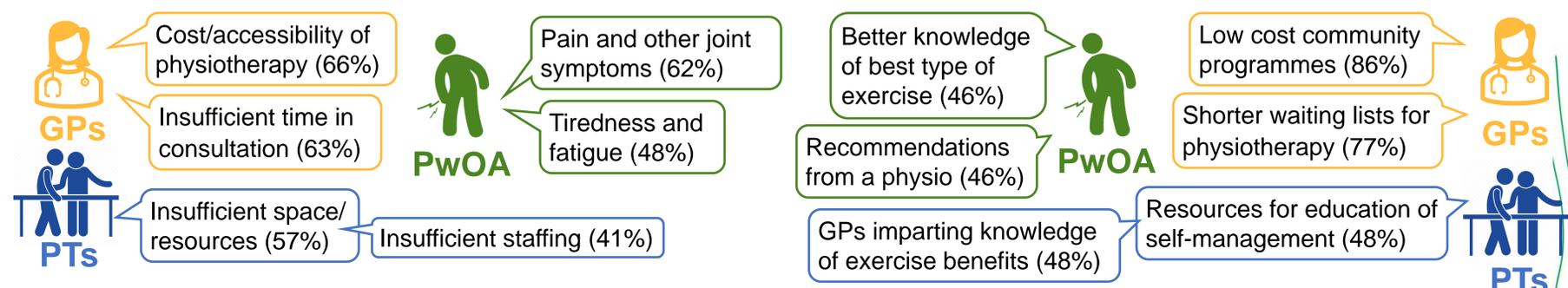
Statement	Proportion in agreement			Chi-Square	Significance	Cramer's V
	GP	PT	PwOA			
Hip and knee problems can be improved by general exercise	97.5%	95.1%	85.7%*	15.34	<0.001	0.191
Hip and knee problems can be improved by specific muscle strengthening exercises	98.8%	97.5%	80.0%*	41.96	<0.001	0.320
General exercise e.g., walking and swimming is safe for everybody to do	85.7%	68.9% <sup>a</sup>	87.2%	18.32	<0.001	0.210
Specific muscle strengthening exercise is safe for everyone to do	85.6%	84.5%	68.5%*	13.01	0.001	0.177
Exercise is effective for patients if an x-ray shows severe knee OA	53.8%	63.4%	39.8% <sup>^</sup>	13.24	0.001	0.179
Exercise works just as well for everybody, regardless level of pain	24.2%	19.6%	33.0% <sup>^</sup>	5.762	0.056	n/a

\*Significantly different compared to GP and PT, <sup>a</sup>significantly different to GP and PwOA, <sup>^</sup>significantly different to PT, using Bonferroni at .05 level. Cramer's V = 0.1 small, 0.3 medium, 0.5 large effect size

In relation to statement 1: "Hip and knee problems can be improved by general exercise", service providers had 4.3 times the odds (95% CI 1.9, 9.7) of agreeing with the statement compared to PwOA. However, in relation to statement 6: "Exercise works just as well for everybody, regardless of the amount of pain they have", service providers had 0.6 lower odds (95% CI 0.3, 0.9) of agreeing with the statement compared to PwOA.

## We have high level evidence...what are the BARRIERS??

## ...What are the ENABLERS??



## CONCLUSION

Beliefs were predominantly positive across all stakeholder groups. There was a difference in level of agreement, with more service providers in agreement regarding the effectiveness of general and strengthening exercises compared to PwOA, with effect sizes that were small to medium. All three surveys highlighted a real need for better access to physiotherapy services in the Irish healthcare system. Limitations of this study included a bias related to online distribution of surveys that limited access for older or less tech-savvy PwOA. Future qualitative research focused on more diverse recruitment targets will help to elaborate on these findings.

REFERENCES: [1] Cottrell et al *BMC Fam Pract.* 2010; 11(4). [2] Holden et al. *Arthritis Care Res.* 2009; 61(11):1511-21. [3] Davis et al *Patient Prefer Adherence* 2016; 10:283-90