Editor's key points

- Knee osteoarthritis (OA) tended to be considered lower in importance relative to other diseases managed by primary care physicians (PCPs). Primary care physicians also tended to prioritize conditions they believed led to more serious and more immediate negative outcomes, despite some of those conditions being negatively affected by physical inactivity.
- Primary care physicians identified lack of patient motivation to exercise as a barrier to prescribing exercise and discussed challenges in convincing patients to exercise. Few PCPs reported patient adherence to an exercise prescription for knee OA; therefore, they doubted the effectiveness of exercise.
- Most PCPs also viewed prescribing exercise as being outside of their scope of practice owing to lack of training and preference for a physiotherapist to provide an exercise program. Improved access to physiotherapists might be a solution to improving uptake of exercise prescription.

"It … doesn't always make it [to] the top of the list"

Primary care physicians' experiences with prescribing exercise for knee osteoarthritis

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Abstract

Objective To explore primary care physicians' (PCPs') experience with and barriers to prescribing exercise for people with knee osteoarthritis (OA).

Design A qualitative descriptive study using semistructured interviews.

Setting Ontario.

Participants Twelve PCPs recruited from academic and community family health practices.

Methods Twelve 30- to 60-minute, one-on-one interviews were conducted using a purposive sampling of PCPs. Data were analyzed using a constant comparison approach.

Main findings Of the 12 interviews, 11 were analyzed and organized in relation to the primary finding that PCPs often assigned a low priority both to OA as a disease and to exercise as a treatment. It was discovered that exercise, the main treatment for OA, is often not perceived as a "real" medical treatment; prescribing exercise is perceived as being outside of most PCPs' scope of practice; and PCPs often account for success or failure of prescribed exercise as being the function of individual patient motivation.

Conclusion Although knee OA often affects incidence of and complicates other comorbidities, in general, PCPs consider knee OA to be lower in importance relative to other diseases they manage. Improved awareness of OA and its effect on other chronic conditions might improve uptake of OA treatment, including exercise. If additional guidance on exercise is needed, referring patients to a physiotherapist is a potential solution.

« Pas toujours en tête de liste »

L'expérience de médecins de soins primaires en matière de prescription de l'exercice pour l'arthrose du genou

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Résumé

Objectif Explorer l'expérience des médecins de soins primaires (MSP), de même que les obstacles en matière de prescription de l'exercice aux personnes souffrant d'arthrose du genou (AG).

Type d'étude Une étude descriptive qualitative à l'aide d'entrevues semi-structurées.

Contexte Ontario.

Participants Douze MSP recrutés dans des cliniques universitaires et communautaires de pratique familiale.

Procédure Douze entrevues individuelles de 30 à 60 minutes ont été effectuées avec un échantillonnage dirigé de MSP. Les données ont été analysées en suivant une approche de comparaison constante.

Principales constatations Parmi les 12 entrevues, 11 ont été analysées et structurées en fonction des principales constatations selon lesquelles les MSP accordaient souvent une plus faible priorité à l'AG en tant que maladie et à l'exercice comme traitement. Nous avons observé que l'exercice, qui est le traitement principal de l'AG, est souvent considéré comme n'étant pas un « vrai » traitement médical; que la prescription de l'exercice ne relève pas de la portée de la pratique de la plupart des MSP; et que les MSP attribuent souvent la réussite ou l'échec d'une ordonnance d'exercice à la motivation du patient.

Conclusion Même si l'AG affecte souvent l'incidence d'autres comorbidités et les complique, en général, les MSP considèrent l'AG comme d'une importance moins grande relativement à d'autres maladies qu'ils traitent. Une meilleure sensibilisation à l'AG et à ses effets sur d'autres problèmes chroniques pourrait améliorer la conformité au traitement de l'AG, notamment à l'exercice. Si des conseils additionnels sont nécessaires, une demande de consultation en physiothérapie pourrait être une solution.

Points de repère du rédacteur

- L'arthrose du genou (AG) semblait revêtir moins d'importance que d'autres maladies prises en charge par les médecins de soins primaires (MSP). Les MSP avaient aussi tendance à accorder la priorité à des problèmes qu'ils jugeaient propices à des résultats défavorables plus sérieux et plus immédiats, même si certains de ces problèmes sont affectés par l'inactivité physique.
- Les MSP ont signalé que le manque de motivation des patients à l'égard de l'exercice était un obstacle à la pratique de prescrire l'activité physique, et ont expliqué les difficultés de convaincre les patients à être physiquement actifs. Peu de MSP ont rapporté que des patients se conformaient à une ordonnance d'exercice pour l'AG; par conséquent, ils doutaient de l'efficacité de cette recommandation.
- La plupart des MSP étaient aussi d'avis que la prescription de l'exercice ne relevait pas de la portée de leur pratique en raison d'un manque de formation et de leur préférence à faire appel à un physiothérapeute pour élaborer un programme d'activités physiques. Un meilleur accès aux physiothérapeutes pourrait être une solution pour augmenter la conformité à une ordonnance de faire de l'exercice.

Osteoarthritis (OA) is a leading cause of disability worldwide.[1] The knee is the most affected weight-bearing joint, with approximately 10% to 30% of older adults worldwide experiencing symptomatic knee OA.[1,2] The prevalence of knee OA is expected to rise with the aging population.[1,3]

Both physical activity (ie, unstructured activity) and regular exercise (ie, structured activity) can reduce pain and prevent disability in people with knee OA.[4-6] Moreover, participation in exercise and adoption of a physically active lifestyle, particularly in early stages of knee OA, might prevent weight gain[7] and mitigate risk factors for cardiovascular disease[8] and diabetes,[9] which are common comorbidities in people with knee OA.[6,10,11] Osteoarthritis Research Society International recommends exercise and physical activity as a first-line treatment for OA,[4,12-14] yet less than one-third of people with knee OA worldwide either self-report meeting or objectively meet the physical activity guidelines.[15-17]

People with knee OA predominantly seek treatment from primary care physicians (PCPs).[18-20] A recommendation to adopt an active lifestyle and an exercise prescription by a PCP is a moderately effective way to increase physical activity in the short term, and most PCPs have a positive attitude toward exercise to treat knee pain.[19,21] However, only 30% to 60% of PCPs in North America and Europe recommend exercise to their patients with knee OA.[22-24] Hence, there is a gap between knee OA clinical practice guidelines and implementation of exercise recommendation among PCPs.

We currently have limited insights into the PCP-related factors contributing to this gap; such knowledge might help to improve the uptake of exercise among people with knee OA. The purpose of our study is to explore why this care gap exists from the perspective of PCPs.

Methods

Study design and setting

A constructivist approach was used for this qualitative descriptive research.[25] One-on-one semistructured interviews were conducted with PCPs. A semistructured interview guide was pilot-tested and used during the interviews. Each interview ranged from 30 to 60 minutes in length.

Participant recruitment

Purposive sampling with maximum variation[26] was used to recruit PCPs from academic and community family health practices in Ontario. E-mail recruitment letters were sent to PCPs between July 2017 and March 2018. If a PCP was interested in participating, a research assistant contacted the PCP to set up the interview either in person or over the telephone. All interviews were conducted by experienced research assistants trained in qualitative research (J.C., M.B.C., K.R.). None of the interviewers had affiliations or established relationships with recruited PCPs.

Data collection and analysis

Interviews were audiorecorded, professionally transcribed, and entered into a software program (NVivo qualitative data analysis software, version 11). Field notes from interviews were also included in the analysis. Data were analyzed using a constant comparison approach and were coded for thematic patterns and relationships from which overarching themes were determined.[27] Three researchers (F.W., J.C., M.B.C.) independently coded the first 4 interviews and met to compare their results. A coding framework was then created and applied to the remaining transcripts and updated during regular group meetings. Data were coded and analyzed iteratively by teleconference and in-person meetings with the larger research team (M.B.C., F.W., D.K.W., E.W., L.K., N.G.). These meetings allowed reflexivity, as the team was multidisciplinary and could explore any nuances or differences in their interpretations.[28] As qualitative sampling was purposive, a robust amount of data was required to sufficiently explore the issues under investigation. The data reached a point of saturation when no new information or themes were being generated; at this point, interviewing stopped.

Findings

A total of 12 PCPs were recruited between July 5, 2017, and March 8, 2018, and 11 semistructured interviews were analyzed (**Table 1**). One interview was not included in the analysis because the participant no longer practised in primary care.

Primary finding

Primary care physicians often assigned a low priority both to OA as a disease and to exercise as a treatment. Primary care physicians described many situations in which their patients with knee OA had multiple conditions (eg, diabetes and hypertension) that they also needed to manage medically. Several PCPs described the difficulty they had with managing multiple conditions and their tendency to prioritize other conditions over OA.

> It [knee OA] probably doesn't always make it into the top of the list, I'll be honest with you. If I'm managing diabetes, high blood pressure, things like that, that probably takes more of a precedence … but I think it probably gets put to the side, probably to the back burner a bit more than it should. (Interview 8, female, community family practice)

Often, as the PCPs below note, this lower priority is assigned as the PCP believes that more urgent and serious things require greater attention.

Table 1. Emerging themes and additional quotes from semistructured interviews

THEME	QUOTATIONS
PCPs often assigned a low priority to OA as a disease	• "A lot of patients who are older have diabetes, hypertension, and hyperlipidemia, but if they have OA in their knees and it's affecting their ability to move, and walk, and function, that's what's top of mind for them so they bring it forward and they want help with it" (Interview 6, female, academic family practice) • "Mostly, they don't come in for their arthritis. It's not their arthritis they come in for" (Interview 1, female, academic family practice) • "[Patients say] 'I can't do what I used to do' or 'My knees creak' or 'I can't …' and so we talk about what the normal process of aging is" (Interview 3, female, academic family practice)
Exercise, the main treatment for OA, is often not perceived as a "real" medical treatment	• "I would never just prescribe or advise exercise alone as the treatment [for knee OA]" (Interview 10, male, community family practice) • "Nothing really seems to work [to treat knee OA–related pain]" (Interview 1, female, academic family practice) • "But it's hard to do [exercises] long enough to see that you may get that benefit" (Interview 1, female, academic family practice)
Prescribing exercise is perceived as being outside of most PCPs' scope of practice	• "The other thing is I'm not sure if family docs … know how much to recommend exactly" (Interview 2, female, academic family practice) • "I probably never really looked into learning about it and I never was taught it [exercise prescription]" (Interview 4, female, community family practice) • "I certainly encourage them to walk, at the very least. But some of them, I think, need more than that so sometimes I wish that I could get more in the way of a physiotherapy program that would at least get them started on a good exercise routine" (Interview 6, female, academic family practice) • "I don't feel like we have great algorithms for managing it [exercise]" (Interview 4, female, community family practice) • "But practically, I find it difficult to prescribe it [exercise]" (Interview 10, male, community family practice)
PCPs often account for success or failure of prescribing exercise as being the function of individual patient motivation	• "[Many patients are] lazy, or want a quick fix, or don't want to work at it to get the desired results" (Interview 2, female, academic family practice) • "I'm always surprised when they actually do it [exercise]" (Interview 3, female, academic family practice) • "I honestly have not suggested it to her. I haven't … I've probably just projected that she wouldn't be interested, which is unfair. So, it's unfair for me not to have gone there with her" (Interview 3, female, academic family practice) • "I try to get people to walk, for sure … but older people don't … it's challenging" (Interview 1, female, academic family practice) • "When they come back and you ask 'Have you done the exercises,' most of them have not done them" (Interview 2, female, academic family practice) • "Well, the challenge for a lot of them is finding programs, and they seem to have a bit of trouble motivating themselves to do it on their own" (Interview 6, female, academic family practice) • "They [patients] have to know that it's going to make them feel better because otherwise, there's low motivation to do it" (Interview 4, female, community family practice)

OA—osteoarthritis, PCP—primary care physician.

> So, if someone is coming in with chronic, poorly controlled diabetes that has target organ damage from this, that has wounds or ulcers that are poorly controlled, the OA is going to be much lower on the list, because they've got more acute things that I've got to try and manage. (Interview 9, female, academic family practice)

> It's not like their blood sugar is really high or their INR [international normalized ratio] needs to be treated because it's really high. You don't have the same knee-jerk reaction that we have to treat this aggressively [knee OA] …. There's no severe consequence to the patient if they don't treat it, but there are chronic consequences. (Interview 4, female, community family practice)

Themes

Exercise, the main treatment for OA, is often not perceived as a "real" medical treatment. Many PCPs report difficulty with prescribing exercise, as they find it frustrating and are not certain that it works. They often expressed a sentiment that "you have a kind of hope" that exercise might be effective when the pain "gets really bad" (Interview 5, female, academic family practice). As one PCP noted,

> And I will share that it's a bit frustrating because I don't think a lot of things work … but I think we could use more resources and help with this [for OA] because it's so common and it's a challenge. (Interview 6, female, academic family practice)

Often they reported referring patients to other health care providers and for other types of treatments for OA rather than recommending exercise.

Prescribing exercise is perceived as being outside of most PCPs' scope of practice. Many PCPs reported not being comfortable with prescribing exercise to people with knee OA owing to their limited knowledge of exercise prescription for OA. In part, they frequently described referring their patients with knee OA to those with specialized knowledge rather than treating them themselves. For example, several PCPs would often refer their patients to physiotherapists when they believed exercise was warranted. For some PCPs, a barrier they cited was uncertainty of exactly what exercise to recommend and how much.

> For people with OA, I wouldn't probably write a prescription but it would probably be more tailored. If walking is what they'll do, that's great. But sometimes it might be [biking] or something. But I'll often get them to work with a physio for 1 or 2 sessions, just to get somebody who is smarter than me to do it. (Interview 1, female, academic family practice)

Primary care physicians also believed that they had not received sufficient training on exercise. For these PCPs, the lack of education was the reason they provided for not prescribing exercise for OA. One PCP reported that he "never prescribed exercise [for knee OA]" (interview 12, male, community family practice) because he had not received formal training in medical school.

Primary care physicians often attributed the success or failure of prescribed exercise to individual patient motivation. Primary care physicians frequently perceived patients' lack of motivation to exercise as a reason why exercise for OA is not an effective intervention. From their perspective, patients want a passive treatment approach to managing their OA symptoms, instead of a treatment approach that would require consistent effort. As a result, they do not offer exercise as a treatment for OA. One PCP described patients as "wanting a quick fix" (interview 2, female, academic family practice), as the following quote exemplifies.

> I find that people will often say that they don't want to take a medication. But then, when you talk to them about the alternatives like exercise and things like that, then … because in the end, it is a lot easier to just go to the pharmacy and pick up a bottle of [acetaminophen] and then have that manage their pain. (Interview 8, female, community family practice)

Discussion

The study findings help clarify our understanding of the context in which PCPs do or do not recommend exercise as a treatment for knee OA. Low adherence to exercise recommendations has often been associated with a lack of familiarity with clinical practice guidelines, limited time, or inexperience with prescribing exercise.[29] However, we found that PCPs tend to consider knee OA as lower in importance relative to other diseases they manage, and there are other complex issues influencing exercise prescription for OA. Our findings provide new insight into the challenges of exercise prescription in primary care by exploring barriers from the PCP perspective, investigating barriers specific to knee OA, and using the semistructured interview to improve our understanding of why a care gap exists.

We analyzed our results using the theory of planned behaviour.[30] According to this theory, PCPs' behaviour toward exercise prescription for knee OA can be explained by 3 social-cognitive determinants: attitude, social norms, and perceived behavioural control. In our study, PCPs did not view OA as a medically serious disease, as the outcomes associated with OA were perceived to have few health consequences. This attitude might at least partially account for why PCPs do not routinely treat knee OA. A social norm among PCPs to treat knee OA with exercise did not exist. As most PCPs did not believe exercise prescription was within their scope of practice, PCPs did not prescribe exercise as a part of routine care for knee OA. Finally, PCPs perceived their ability to prescribe exercise for knee OA to be limited. Thus, they believed they had little control over this behaviour. Few PCPs believed they could successfully execute an exercise program for knee OA and, without confidence in this treatment plan, few actually prescribed exercise.

Previous research has also found that PCPs perceive OA as a low priority.[31,32] In a systematic review, Egerton et al found PCPs tended to deprioritize OA because the disease was considered to be a part of the normal aging process.[31] Primary care physicians also tended to prioritize conditions they believed led to more serious and more immediate negative outcomes. Our results are consistent with these findings in that PCPs viewed OA as a condition they should address after other more urgent and harmful medical conditions have been managed. However, this is a misconception. Knee OA is a serious disease that is associated with increased risk of disability, all-cause mortality, and cardiovascular disease.[8] By not addressing OA-related symptoms and functional limitations patients are at risk of obesity, physical inactivity, and functional decline, which in turn might result

in additional comorbidities.[33] Primary care physicians in our study reported prioritizing diabetes and hypertension, yet both of these diseases could be negatively affected by physical inactivity. Also, exercise is recommended for the treatment of other medical conditions (eg, cardiovascular disease, depression, obesity); therefore, exercise should be prioritized in the management of knee OA, particularly when patients have comorbidities.[7,8] In addition, there is a disconnection between PCPs and patients' prioritization of knee OA symptoms in the literature. People with OA have reported that their joint pain and disability are not being adequately addressed by their PCPs.[34,35]

Previous studies have demonstrated varying physician beliefs and attitudes toward the effectiveness of exercise in the management of knee OA.[19,36] In a systematic review by Cottrell et al, PCPs' attitudes and beliefs toward exercise for knee OA ranged from believing it should not be used to total agreement with exercise for knee OA.[19] Most PCPs in our study believed exercise should be used for knee OA and agreed with the clinical practice guidelines. At the same time, PCPs identified lack of patient motivation as a barrier and discussed challenges in convincing patients to exercise. Our findings are consistent with other qualitative studies[36,37]; in a review by Kanavaki et al, PCPs viewed lack of patient motivation as a barrier to exercise and physical activity for knee OA.[36] Few PCPs reported patient adherence to an exercise prescription for knee OA; therefore, they doubted the effectiveness of exercise for the management of knee OA. However, lack of adherence to other types of treatment plans for knee OA, such as a medication regimen, does not necessarily correspond with the efficacy of the medication. The misconception that exercise is not effective because patients are not adherent is a barrier to recommending exercise for knee OA.

Most PCPs also viewed an exercise prescription as being outside of their scope of practice owing to lack of training and preference for a physiotherapist to provide an exercise program. Reasons include having little formal training in prescribing exercise, having limited time with patients to deliver an exercise treatment program, and the health system's perception that PCPs' role is to diagnose and refer patients to specialty services (ie, gatekeeping).[38] One solution is to refer people with knee OA to other health professionals or recommend a local community centre for an exercise program. All of the PCPs we interviewed discussed the importance of a physiotherapy referral when they were unable to provide an exercise recommendation. Given our findings, improved access to physiotherapists might be a solution to improving uptake of exercise prescription.

Strengths and limitations

A strength of our study is that we identified barriers to exercise prescription for knee OA among PCPs and offered 2 solutions: improved awareness of the importance of prioritizing knee OA as a comorbid disease and exercise as an intervention for OA, and referral to a physiotherapist if PCPs are unable to provide an exercise prescription. Our findings also expand on previous work to address an important but underused component of OA management: exercise. However, our study is not without limitations. Primary care providers were recruited from academic and community health organizations in Ontario only, and were mostly female, so the results might not be generalizable; there were no practising PCPs on the research team; and it is unclear which barrier might have had the greatness negative effect on exercise prescription for knee OA.

Conclusion

Given the known substantial disability associated with knee OA, management of the disease by PCPs is crucial. Education to change the perception of OA as a disease and validation of exercise for the treatment of knee OA is needed. Health policy changes are also needed to improve access to physiotherapy services for knee OA.

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Contributors

All authors contributed to the study design and concept, or acquisition of data, or analysis and interpretation of data; drafting the article or revising it critically for important intellectual content; and final approval of the submitted version.

Competing interests

None declared

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