ARTICLE

Why Do People Delay Accessing Health Care for Knee Osteoarthritis? Exploring Beliefs of Health Professionals and Lay People

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ABSTRACT

Purpose: In knee osteoarthritis (OA), opportunity for non-surgical intervention is reduced by time lost between symptom onset and diagnosis. The study's purpose was to understand, from the perspective of various stakeholders, the reasons for delay and useful strategies to enhance early awareness of knee OA. ***Method:*** In this qualitative study, focus groups of health professionals ($n = 6$) and community-dwelling individuals ($n = 7$) discussed questions relating to knowledge, attitudes, and beliefs about OA; experiences with people with OA; health care seeking behaviour; and access to services, and suggested strategies to enhance public awareness. Qualitative analyses identified dominant themes. ***Results:*** Reasons for delay from the laypersons' perspective included lack of knowledge about risk factors and prevention and a belief that knee pain is expected with age. Reasons related to the health care system included long wait times and frustration getting appointments. Health professionals were unclear on which discipline should discuss prevention and risk factors. Suggested strategies included advocating a healthy lifestyle, developing prevention programs, and using celebrities to inform the public. ***Conclusions:*** Participants identified multiple reasons for delays and strategies to counter them. Knowledge about gaps in the OA care process can facilitate physiotherapists' participation in developing strategies for early intervention.

Key Words: attitude to health; focus groups; patient acceptance of health care; health promotion; knee; osteoarthritis.

RÉSUMÉ

Objectif : En matière d'arthrose du genou, la possibilité d'une intervention non chirurgicale est réduite par le temps écoulé entre l'apparition des symptômes et le diagnostic. L'objectif de l'étude était de comprendre, du point de vue de divers intervenants, les raisons des délais, et de réfléchir à des stratégies susceptibles d'améliorer la prise de conscience précoce de l'arthrose du genou. ***Méthode :*** Pour cette étude qualitative, des groupes de discussion de professionnels de la santé ($n = 6$) et de personnes résidant dans la communauté ($n = 7$) ont discuté de questions liées aux connaissances, aux attitudes et aux croyances par rapport à l'arthrose ; des expériences de vie des personnes souffrant d'arthrose ; des comportements relatifs à la recherche de soins de santé ; de l'accès aux services et de stratégies suggérées pour accroître la sensibilisation du public. Des analyses qualitatives ont permis d'identifier les thèmes dominants. ***Résultats :*** Les raisons expliquant les délais, selon les personnes de la communauté, comprenaient l'absence de connaissance sur les facteurs de risque et la prévention possible de la maladie, ainsi que la croyance selon laquelle la douleur au genou fait partie des conséquences du vieillissement. Les raisons liées au système de santé qui ont été mentionnées sont notamment les longs délais d'attente et la frustration engendrée par les tentatives d'obtenir un rendez-vous. Les professionnels de la santé n'ont pas précisé quelles disciplines devraient aborder la prévention et les facteurs de risque. Les stratégies suggérées comprenaient entre autres la promotion d'un mode de vie sain, la mise sur pied de programmes de prévention et le recours à des célébrités pour informer le public. ***Conclusion :*** Les participants ont mentionné de multiples raisons expliquant les retards et les stratégies pour les éliminer. La connaissance des lacunes dans le processus de soins de l'arthrose pourrait faciliter la participation des physiothérapeutes à l'élaboration de stratégies visant une intervention précoce.

Knee osteoarthritis (OA) is a chronic condition leading to pain, joint stiffness, activity limitations, and long-term disability.[1] Prevalence of knee OA is steadily increasing across all age groups; a 66% increase in prevalence among people aged 55–64 is projected by 2026.[2] Some of this increase is attributed to greater life expectancy and to lifestyle changes resulting in low physical activity and obesity.[3] Obesity is a major risk factor for

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knee OA, as excessive body weight results in increased forces being transferred across the knee joints, especially in the medial compartments. Genetic, metabolic, and environmental factors associated with obesity can also contribute to the development of OA.[4] If the current trend in obesity continues, knee OA will become the fourth leading cause of disability by 2020.[5]

Management involves pharmacological and non-pharmacological interventions such as lifestyle changes, exercise, activity pacing, weight reduction, bracing, heel wedges, and canes. These interventions contribute to reducing the stress on the knee joint.[6] Surgical options include high tibial osteotomy and total knee arthroplasty (TKA) for younger and older adults, respectively. A 149% increase in TKA surgeries in people aged 45–54 has been noted over the past decade.[7] Given that the average TKA prosthesis lasts 10–20 years, and that younger recipients are generally more active, surgery in this age group is especially problematic.[8]

The increasing demand for TKA stresses an already strained health care system. The encouraging news is that strategies such as weight loss, an active lifestyle, and knee strengthening exercises, when provided early, can slow the progression of OA.[9] For example, a study of overweight women with radiographic knee OA found that weight loss of about 5 kg effectively reduced their risk of developing symptomatic knee OA by $>50\%$.[10] To benefit from non-surgical interventions for slowing OA progression, people must recognize the seriousness of their symptoms and seek care early. However, evidence shows that people often delay approaching health professionals.[11] It is not clear why this is the case. A retrospective review of records for knee pain consultation in general practice indicated that 50% of people did not seek medical consult even when they had severely debilitating knee pain.[12] A key reason identified was that people do not prioritize knee pain when other comorbid conditions are present.[12] Another community-based survey showed that people with knee OA sought help only when their symptoms interfered considerably with daily activities.[13] The belief that a physician can do little to prevent or treat knee OA has also been cited as a reason for not seeking care.[11]

The National Public Health Agenda for Osteoarthritis (2010) recommends the development of a platform for disease control activities for knee OA.[3] A logical first step would be to better understand why people delay seeking help. Indeed, understanding gaps in the system as perceived by both health professionals (HPs) and lay participants (LPs) is useful for informing future health promotion and knowledge translation strategies.

This study explores reasons why people delay accessing health services for knee pain and examines beliefs about knee OA among various stakeholders, including health professionals, people with knee OA, and the general public.

METHODS

Study overview

Our study used standard focus group methodology, as described by Morgan and Krueger (1997).[14] We conducted two focus groups: one with HPs working in health promotion or with people with knee OA, and the other with LPs aged 45–65 years, with and without knee OA. We included people with knee OA to gain the perspective of those who could reflect back on the pre-OA phase, and people without knee OA for the perspective of those at risk of developing the condition.

The study included five steps: development of the focus group questions; structured focus group discussion; research team debriefing; transcription of content; and data analysis.[14] Ethics approval was obtained from the Institutional Review Board at McGill University.

Development of questions

We first reviewed relevant literature in knee OA, health promotion and preventive services, then generated two sets of open-ended questions for LPs and HPs respectively.

We asked HPs about knee OA information and aspects of risk factor management they discussed with patients; about existing attitudes or beliefs about knee OA, reasons why people consult medical professionals, and reasons why they delay accessing care; and, finally, to comment on available health services and suggest strategies to ensure early care.

We asked LPs to describe their experiences with and knowledge about knee OA, its management, and strategies for disease control; to comment on available health services and discuss reasons for consulting medical professionals; and, finally, to comment on knee OA information resources and features of health promotion programs.

Participant recruitment

LPs were recruited through flyers posted at various clinical and non-clinical sites. To recruit sufficient participants with and without OA, we asked volunteers at initial contact if they had been diagnosed with knee OA. We recruited a purposive sample of HPs to ensure participation from both public and private sectors. Clinicians working with people with knee OA were identified using the clinician database available at the university. We also used snowball sampling, whereby already identified HPs were asked to identify other potential HP participants working in knee OA.

Sample size

We aimed to recruit 6–10 participants for each group, to ensure that all participants had ample opportunity to express their opinions.[14] Our strategy was to continue conducting focus groups until data saturation was reached (i.e., no new ideas were being generated). We asked interested individuals to contact the coordinator, who

Table 1 Demographic Details of Focus-Group Participants (Health Professionals)

Participant	Age group, y	Profession	Practice setting	Experience with knee OA patients, y
HP1	26–30	Occupational therapist	Intensive care rehabilitation	4–10
HP2	51–60	Occupational therapist	Rehabilitation centre	>10
HP3	36–40	Kinesiologist / health promotion professional	Community setting	4–10
HP4	>60	Psychologist	Rehabilitation centres, private practice	>10
HP5	51–60	Physiotherapist	Intensive care rehabilitation	>10
HP6	26–30	Physiotherapist	Private, out-patient	4–10

OA = osteoarthritis; HP = health professional.

Table 2 Demographic Details of Focus Group Participants (Lay Participants)

Participant	Age group, y	Sex	Presence of knee OA	Years since diagnosis
LP1	41–50	F	No	NA
LP2	>60	F	Yes	8
LP3	51–60	F	Yes	>10
LP4	>60	M	Yes	>10
LP5	41–50	M	Yes	>10
LP6	41–50	M	No	NA
LP7	51–60	F	Yes	5–7

OA = osteoarthritis; LP = lay participant; F = female; M = male; NA = not applicable.

verified their eligibility and explained the study. A small honourarium was provided.

Focus group sessions

Focus groups lasted 2 hours and were audiotaped. All participants provided informed consent. A trained researcher facilitated the groups, with the help of two assistants[14] who recorded participants' responses to each question on a flipchart. After each question, to ensure content validity, the facilitator reviewed the record with the group to ensure that participants' opinions were represented accurately. After each focus group, the research team met to discuss the session and their perceptions of critical themes that had emerged.

Data analyses

A member of the research team (SSP) transcribed the audiotapes, and the transcripts were reviewed in conjunction with the written records. Content-based analysis techniques[14] helped us identify dominant themes emerging from the discussions: transcripts were analyzed line by line, and sentences representing the same idea were grouped together and labelled with a code.[14] The research team discussed the codes to ensure a similar understanding, and new codes were included if this seemed necessary. Finally, we reviewed the conclusions drawn under each theme and abstracted illustrative quotes for each theme.

RESULTS

Participants

Six HPs participated in the HP focus group, and seven LPs in the lay group. Tables 1 and 2 provide demographic details of HPs and LPs respectively. Five HPs worked primarily with hip and knee OA patients; most reported seeing people primarily in the pre and post-operative stages of knee OA, while one saw people in the early stages as well. Among the LPs, two did not have knee OA. Participants with knee OA indicated difficulties with daily activities such as climbing stairs, kneeling and housecleaning, and with leisure activities, sports, and yoga.

Health professionals

Experiences with people with knee OA

HPs reported seeing individuals at different stages of OA, but always after diagnosis. They noted that people typically wait until they develop functional difficulties, and are unable to perform activities important to them, as a result of decreased mobility and chronic pain.

> I usually see them when they are in functional decline, when they have severe mobility problems or if they are pre-surgery … or ready for post-op rehab. (HP2)

Two HPs reported that people with multiple joint surgeries often have to deal with additional concerns such as loss of independence, lack of caregiver support, and associated depression.

> The ones we are seeing now are more complex … they have post-op complications or have many comorbidities to deal with, or they are alone without a caregiver … (HP2)

> It becomes a vicious circle … the pain leading to depression, depression to pain. (HP4)

Information provided to patients

When we asked about the information they typically provide to patients, HPs reported providing a description of OA along with suggestions for pain relief, appropriate footwear, and assistive devices. They also reported providing tailored exercise prescriptions, emphasizing the

importance of exercise, balancing rest with activity, and using community resources for physical conditioning.

One HP identified the importance of understanding the patient's needs and of explaining the benefits of exercise and weight loss to help adherence.

> My main concern is … will they be active? … find out who is this person? What is their life about? What kind of activity do they actually want to partake in? (HP3)

Two HPs said that explaining the surgery and goals of postoperative therapy was essential. They described people who knew little about TKA and were shocked by the time and energy required for rehabilitation.

> Suddenly, they had surgery and they don't know what they did! … working with the more senior population, they don't really know. (HP5)

When we asked about discussing risk factors, HPs said they often do not discuss this topic because the people they see usually have advanced knee OA and are well beyond prevention in the affected knee.

> There's a certain frustration in terms of seeing patients when it's too late. (HP2)

Some HPs mentioned discussing strategies for preventing OA after other types of knee surgery (e.g., meniscectomy) and controlling OA progression in the non-operated limb post TKA. Avoiding high-impact exercise as a precaution was also mentioned.

Two HPs also questioned whose responsibility it is to identify and discuss risk factor management. Some suggested that because family physicians are often consulted first, they may be best placed to play this role.

> So I don't know if in the training of family physicians … do they do any prevention? (HP4)

> Are they the frontline professionals that will provide options to the patients that are non-surgical or non-pharmaceutical? (HP2)

Attitudes and beliefs

When we asked about common attitudes and beliefs that exist about knee OA, HPs reported that older people often express the belief that knee pain and arthritis are age-related and that one cannot do much about them.

> I'd say arthritis is not scary in general compared to other problems … (HP6)

> Patients I see act … almost like arthritis is a done deal … "you can't do much about it right"? (HP2)

> Patients say: "Getting old! It's part of getting old." (HP6)

Two HPs expressed concern that people are unaware of strategies to delay arthritis progression and instead look for quick solutions such as medications, cortisone injections, and, ultimately, surgery.

> I'm not sure that the general population knows about prevention or even at the early stages, what it is. (HP4)

> The perception is that we'll live with it until the doctor thinks that we are ready for surgery. (HP1)

One HP noted misconceptions about surgery, specifically patients' thinking that the new joint would help them perform any and all sophisticated activities. Cultural beliefs were also cited as influencing the success of TKA.

Some patients find it difficult to cope after surgery because having a foreign object in the body is contrary to their religious or cultural beliefs, and, similarly, some cultures believe that one must be stoic and accept pain rather than using pain medications. Such beliefs can affect participation in rehabilitation.

Health services and health care seeking behaviour

When we asked HPs why people with knee OA consult them, their responses included pain, loss of function, the need to find the cause of pain, sleeping difficulties due to pain, and encouragement by family members to seek help.

> There's something that matters to them that they can't do now. (HP6)

> I think it's the worry associated … not knowing what it is. (HP3)

When we asked HPs to comment on why people delay seeking intervention, the reasons they cited included the perception that arthritis is a common problem, optimism that the pain would go away, lack of knowledge, and difficulty in accessing health care—specifically, getting appointments with family physicians. HPs told us that people are not sure what the physician will do.

> I waited and waited and I thought it would go away. But it just got worse! (HP6)

> If I'm not having severe pain why do I have to go through all the bother trying to track down a family physician who's only going to see me in six months? (HP3)

Some HPs noted that appointments with family physicians may not be long enough to discuss knee pain if this is not a primary concern, which limits opportunities for risk factor modification.

> … you might not be there for your knee and you forget to ask about your knee because the doctor is in a rush and you don't want to bother them. So you just don't ask … (HP6)

One HP reported that some people use pain to get attention.

> They are afraid that if they get treatment, they won't be special anymore. (HP1)

HPs also felt that people's belief systems and self-efficacy influence their access to and use of resources.

HPs described how some people depend entirely on their family physician for advice, whereas others seek out health information from other sources (e.g., online). In their experience, this difference is age-dependent (older people are more comfortable with their physician's opinion).

HPs saw being assertive and knowledgeable as beneficial in accessing better care. They also reported that having an advocate or a family member in the health care profession is an advantage.

> Once you see your family physician, you need to know how to ask questions … If you don't know how to ask the right questions, you may not get the answers. (HP6)

HPs described the referral system to access specialized therapy as complicated and tedious, and identified long waiting periods as deterring family physicians from referring people early on. One HP indicated that insurance plans influence health service use; specifically, the fact that rehabilitation is not always covered may deter people from using these services early on.

> I get this general sense that rehabilitation is not something that is foremost in a family physician's mind. (HP2)

> They know that the patient has to wait and not all rehabilitation centers or outpatient facilities have easy access. (HP2)

One HP noted a growing group of patients who want surgery immediately after diagnosis, to avoid any decrease in quality of life (QOL). These patients are unaware of the benefits of less radical options and make comments such as:

> Why should I wait until it gets so bad that I'll have a decrease in QOL … so I'm going to do it now. (HP2)

Strategies for early intervention

Finally, we asked HPs about strategies for early intervention. Responses included advocating a healthy lifestyle, directing people to appropriate public resources, and providing accessible information. Some suggested developing clinical programs for prevention and early intervention that are easily available through referral.

> I think the information has to get out … informing people not when they are 50 and 60 but earlier and doing some prevention. (HP4)

> Is there something missing in the healthcare system that's supposed to attract me to go see a doctor? (HP1)

One HP suggested developing communities that provide initiatives for a healthy lifestyle. A recurring concern was uncertainty as to who is responsible for disseminating risk factor information and which is the target population.

> Who are we supposed to talk to about this? Is it the kids? Are we going to talk to our kids about every single condition out there … why specifically arthritis? (HP1)

Participants raised concerns that educational materials alone would not be sufficient. To reach a wider audience, they suggested, it is important to understand the needs of the target population and communicate in a manner that is meaningful to them. Information dissemination strategies need to be engaging and varied. Using television and other media, including having celebrities disseminate information, was recommended.

Lay Participants

Knowledge of and experience with knee OA

According to their responses, LPs were in different stages of knee OA. Most attributed their OA to repetitive work or sports-related activities. Participants reported using pain medications and glucosamine sulphate.

> I think it is overuse … that was my understanding of where my knee pain came from and it was always the same knee. (LP7)

One LP without knee OA expressed lack of knowledge.

When we asked about difficulties experienced due to knee pain, LPs told us that they often could not pursue activities as before, which diminished their QOL.

> Walking around … everything hurts because your lower back hurts, then your shoulder hurts … because you are limping and walking strange … (LP3)

> I played soccer all my life and had to give up two years ago. (LP4)

Causes of Knee OA

When we asked about the causes of knee OA, LPs mentioned high impact sport activities; previous knee injury; genetic predisposition; being overweight; reduced soft tissue flexibility; inappropriate dietary habits; and inappropriate posture and footwear. Psychological factors such as lack of a flexible personality were also mentioned.

> It could be your personality that's quite not as flexible. (LP2)

When asked about management, LPs noted that while many treatment options are available, they are likely to use those that suit them the most. They mentioned modalities such as pain relieving medications, glucosamine sulphate, corticosteroid and hyaluronic acid injections, diet, TKA, physical therapy, stretching, strengthening exercises, knee massage, psychological modalities, and avoiding repetitive activities causing pain. One participant mentioned use of marijuana for pain relief.

> I guess you just have to tap into whatever that resonates with you. (LP2)

When we asked about prevention or control of progression, LPs said that while they knew about treatment, they did not know about prevention.

> Even when I look up stuff … what I could have done or what I can do now … No, there's nothing about prevention. (LP3)

> Heart disease, high blood pressure, high cholesterol … you know all about this. TV has it all … But there's nothing about knee OA. (LP6)

Seeking health care

When we asked about their reasons for consulting health professionals, LPs identified need-based factors such as persistent pain, decreased function and QOL, and needing to know the cause of pain. They reported that they often do not consult a health professional in the absence of persistent pain because it is difficult to schedule medical appointments.

> As a principle I go to the doctor as less as possible because it's always a burden to go there. (LP5)

The slow progression of OA and optimism about its getting better were also mentioned as contributing to a delay in seeking care.

> You put it on the back burner … it'll be fine tomorrow. (LP3)

Participants said they are more likely to consult if they are unable to perform an activity that is important to them.

Health services

When we asked about health services, LPs reported difficulty accessing family physicians and orthopaedic surgeons, with long waiting periods for appointments and diagnostic tests.

> I think it took 3 to 4 months before I could see an orthopaedist when I kept getting my pain. (LP4)

All LPs said they appreciate that Canada's provincial health plans allow access to medical care without out-of-pocket expenses. They agreed with HPs that an advocate or family member in the health professions can help navigate the health system. One LP said that while it takes a long time to arrive at a diagnosis, things move faster once treatment is recommended.

Enhancing knowledge

Celebrities, television shows with physicians, commercials with public health messages and Internet sites offering health information were identified as popular resources. Other resources mentioned included doctors, physiotherapists, physical trainers, books, friends, family members, electronic mailing lists, newspaper articles, and magazines. However, participants expressed concern that the excessive information available online may be counter-productive for "hypochondriacs." Nurse phone-in services and pharmacists were also mentioned as resources.

LPs suggested that preventive information would be useful and wondered whether screening is available.

> There are these ads about checking your breasts … so similarly is there a screening process for arthritis? (LP1)

Two LPs considered public lectures very effective but said they would not look for information about a condition unless they had it or knew they were at risk.

Health promotion

When asked what features make a health program attractive, LPs noted that association with a celebrity makes a great impact. Advertisements must be entertaining, with the information easily accessible. LPs identified a need to provide information about prevention of common conditions while avoiding personal testimonies. Many felt that most health promotion programs are designed for healthy adults, which makes them difficult to implement for people from different age groups and those with health conditions.

DISCUSSION

We designed our study to help understand beliefs about knee OA and why people delay seeking health services, such as the family physician and/or a specialist, for their knee pain. Interestingly, HPs and LPs often responded similarly to specific questions. Reasons identified for delay in seeking health services included lack of knowledge about risk factors and disease control and the belief that knee OA is a common age-related condition. While this belief has been reported previously elsewhere,[15] our study provides new evidence linking this misconception about the need to "grin and bear it" to the failure to seek early care. The impact of lack of knowledge about a condition on health care seeking behaviours has been previously studied in conditions such as stroke.[16] In the case of stroke, educational interventions have been successful in improving awareness and intent to access emergency services when experiencing stroke signs.[16]

We anticipate that insights from our study regarding gaps in awareness about knee OA will provide an important beginning for building knowledge translation strategies for both the public and health care providers. That both LPs and HPs reported OA as being "on the back burner," or not seen as an emergency, is an important finding. Attention to heart attack and stroke has likely improved because of the "urgency factor." The question therefore arises of how to make the persistent presence of knee pain "urgent" in the eyes of the public. While instilling fear about the consequences of unaddressed knee pain is inappropriate, we need public education on the signs and symptoms of knee OA and the benefits of early intervention.

Another common reason cited for delay was the difficulty in obtaining medical appointments and long waiting times. Participants were unanimously discouraged about health care access for nonurgent conditions. People across Canada wait an average of 14–44 weeks after a

family physician referral to obtain treatment from a specialist.[17] Given these statistics, it is not surprising that people avoid consulting until their condition becomes severe, by which point the opportunity to discuss risk factors and solutions for disease control and health promotion has often been lost. Indeed, strategies such as weight reduction have been useful in reducing the risk of developing symptomatic knee OA,[10] as well as providing symptom relief in early stages of the condition.[18] Recognizing these barriers to access is therefore essential in designing strategies to facilitate early intervention for knee OA. Empowering the public to demand such interventions is likely an important catalyst for change.

When discussing opportunities for disease control, HPs expressed concern as to which professional should provide information. While family physicians seem an obvious choice, they are already overburdened; putting the onus on physicians, therefore, may be impractical. However, approximately 33% of Canadians visit a family physician for an annual physical exam,[19] which could be a perfect opportunity. The strategy might take various forms (e.g., a self-administered screening questionnaire eliciting information for knee OA risk and presence of pain and/or functional symptoms). In addition, since an annual exam is typically allotted twice as much time as a regular visit,[20] it can provide sufficient time for discussing prevention. Evidence shows that the annual exam is an effective avenue for delivering preventive services targeting colon and cervical cancer.[21]

Counting more on other disciplines to be actively involved in education, however, is both warranted and realistic. For example, nurses have effectively provided preventive services for coronary heart disease in general practice, thus building greater capacity to address a major health problem.[22]

Our findings are based on the views of a limited number of people in various stakeholder groups. Recruitment of participants was especially challenging because of the busy schedules of HPs and the fact that most people in the LP age group are employed. While our sample size is definitely a limitation, many interesting themes emerged, and the similarity between groups suggests that we succeeded in identifying most key themes. However, it is always possible that a key theme may have been missed.

CONCLUSION

Early intervention can help identify risk factors and early symptoms of knee OA and initiate strategies for their management. Our study identified key barriers to early care in knee OA; potential solutions for these barriers need to be developed and implemented to facilitate early care. Given that physiotherapists play a primary role in the management of knee OA, knowledge of gaps in the care process can facilitate their assertive participation in a research agenda aimed at developing effective strategies for early intervention in knee OA.

KEY MESSAGES

What is already known on this topic

People delay approaching health professionals for knee pain. This delay reduces the opportunity for non-surgical interventions to control OA progression. The lack of priority attached to this condition and the common belief that knee OA is age-related and therefore inevitable, are known contributors to this delay.

What this study adds

Key barriers to accessing early care include lack of knowledge about risk factors and control of knee OA progression. Factors such as long wait times and difficulty getting appointments also limit access to health services for non-urgent conditions. Gaps in the health care system include a lack of current guidelines to determine which discipline should provide information on disease control. Physiotherapists are frontrunners in management of knee OA; knowledge of gaps in the knee OA care process can facilitate physiotherapists' assertive participation in developing strategies for prevention and early intervention.

REFERENCES

1. Jinks C, Jordan K, Croft P. Osteoarthritis as a public health problem: the impact of developing knee pain on physical function in adults living in the community: (KNEST 3). Rheumatology (Oxford). 2007;46(5):877–81. http://dx.doi.org/10.1093/rheumatology/kem013. Medline:17308312
2. Badley E, DesMeules M. Arthritis in Canada—an ongoing challenge [Internet]. Ottawa: Public Health Agency of Canada [updated 2003 Oct 17; cited 2010 Feb 12]. Available from: http://www.phac-aspc.gc.ca/publicat/ac/index-eng.php
3. Arthritis Foundation [Internet]. National public health agenda for osteoarthritis [updated 2011; cited 2011 Jan 18]. Available from: http://www.arthritis.org/osteoarthritis-agenda.php
4. Griffin TM, Guilak F. Why is obesity associated with osteoarthritis? Insights from mouse models of obesity. Biorheology. 2008;45(3-4):387–98. Medline:18836239
5. Woolf AD, Pfleger B. Burden of major musculoskeletal conditions. Bull World Health Organ. 2003;81(9):646–56. Medline:14710506
6. Zhang W, Moskowitz RW, Nuki G, et al. OARSI recommendations for the management of hip and knee osteoarthritis, Part II: OARSI evidence-based, expert consensus guidelines. Osteoarthritis Cartilage. 2008;16(2):137–62. http://dx.doi.org/10.1016/j.joca.2007.12.013. Medline:18279766
7. Canadian Institute for Health Information [Internet]. Total number of hip and knee replacement procedures, Canada; 2006 [cited 2009 Sep 18]. Available from: http://secure.cihi.ca/cihiweb/en/media_25oct2006_tab1_e.html
8. Julin J, Jämsen E, Puolakka T, et al. Younger age increases the risk of early prosthesis failure following primary total knee replacement for osteoarthritis. A follow-up study of 32,019 total knee replacements in the Finnish Arthroplasty Register. Acta Orthop. 2010;81(4):413–9. http://dx.doi.org/10.3109/17453674.2010.501747. Medline:20809740
9. Blíddal H, Christensen R. The treatment and prevention of knee osteoarthritis: a tool for clinical decision-making. Expert Opin Pharmacother. 2009;10(11):1793–804. http://dx.doi.org/10.1517/14656560903018911. Medline:19537998
10. Felson DT, Zhang Y, Anthony JM, et al. Weight loss reduces the risk for symptomatic knee osteoarthritis in women. The Framingham Study. Ann Intern Med. 1992;116(7):535–9. Medline:1543306

11. Jinks C, Ong BN, Richardson J. A mixed methods study to investigate needs assessment for knee pain and disability: population and individual perspectives. BMC Musculoskelet Disord. 2007;8(1):59–67. http://dx.doi.org/10.1186/1471-2474-8-59. Medline:17610732
12. Bedson J, Mottram S, Thomas E, et al. Knee pain and osteoarthritis in the general population: what influences patients to consult? Fam Pract. 2007;24(5):443–53. http://dx.doi.org/10.1093/fampra/cmm036. Medline:17675657
13. Thorstensson CA, Gooberman-Hill R, Adamson J, et al. Help-seeking behaviour among people living with chronic hip or knee pain in the community. BMC Musculoskelet Disord. 2009;10(1):153–62. http://dx.doi.org/10.1186/1471-2474-10-153. Medline:19968876
14. Morgan DL, Krueger RA. The focus group kit. Thousand Oaks, CA: Sage Publications; 1997.
15. Turner AP, Barlow JH, Buszewicz M, et al. Beliefs about the causes of osteoarthritis among primary care patients. Arthritis Rheum. 2007;57(2):267–71. http://dx.doi.org/10.1002/art.22537. Medline:17330306
16. Jurkowski JM, Maniccia DM, Spicer DA, et al. Impact of a multimedia campaign to increase intention to call 9-1-1 for stroke symptoms, upstate New York, 2006-2007. Prev Chronic Dis. 2010;7(2):A35–45. Medline:20158963
17. Barua B, Rovere M, Skinner BJ. Waiting your turn: wait times for health care in Canada, 2010 report [Internet]. Vancouver: Fraser Institute; 2010 [updated 2010 Dec; cited 2011 May 4]. Available from: http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/publications/waiting-your-turn-2010.pdf
18. Bijlsma JW, Knahr K. Strategies for the prevention and management of osteoarthritis of the hip and knee. Best Pract Res Clin Rheumatol. 2007;21(1):59–76. http://dx.doi.org/10.1016/j.berh.2006.08.013. Medline:17350544
19. IMS Health [Internet]. Top 10 reasons for physician visits in Canada. Canadian disease and therapeutic index [updated 2010 Apr; cited 2011 May 8]. Available from: http://www.stacommunications.com/journals/cpm/2010/04-April-2010/CPM_035.pdf
20. Howard-Tripp M. Should we abandon the periodic health examination?: YES. Can Fam Physician. 2011;57(2):158–60. Medline:21642713
21. Boulware LE, Marinopoulos S, Phillips KA, et al. Systematic review: the value of the periodic health evaluation. Ann Intern Med. 2007;146(4):289–300. Medline:17310053
22. Murchie P, Campbell NC, Ritchie LD, et al. Secondary prevention clinics for coronary heart disease: four year follow up of a randomised controlled trial in primary care. BMJ. 2003;326(7380):84–9. http://dx.doi.org/10.1136/bmj.326.7380.84. Medline:12521974