

363 SEVERITY OF OSTEOARTHRITIS IN GLOBAL POPULATIONS

M. Cross[†], E.U. Smith[‡], D. Hoy[‡], S. Nolte^{||§}, I. Ackerman[¶], M. Fransen[#], L. Bridgett[#], S. Williams^{††}, C.L. Hill^{††§§}, L.L. Laslett^{|||}, G. Jones^{|||}, F. Cicuttini^{¶¶}, R. Osborne^{##}, T. Vos^{†††}, R. Buchbinder^{¶¶}, A.D. Woolf^{†††}, L. March[‡]. [†]Univ. of Sydney, St Leonards, Australia; [‡]Univ. of Queensland, Brisbane, Australia; [§]Charité – Univ.smedizin Berlin, Berlin, Germany; ^{||}Deakin Univ., Burwood, Australia; [¶]Univ. of Melbourne, Parkville, Australia; [#]Univ. of Sydney, Lidcombe, Australia; ^{††}Univ. of Western Sydney, Campbelltown, Australia; ^{†††}The Queen Elizabeth Hosp., Woodville, Australia; ^{§§}Univ. of Adelaide, Adelaide, Australia; ^{|||}Univ. of Tasmania, Hobart, Australia; ^{¶¶}Monash Univ., Melbourne, Australia; ^{##}Deakin Univ., Melbourne, Australia; ^{†††}Univ. of Washington, Seattle, WA, USA; ^{††††}Royal Cornwall Hosp., Truro, United Kingdom

Purpose: Understanding the distribution of the severity of hip and knee OA within populations would enable planning for future health system use and needs of the community. The aim of this study was to estimate the severity of hip and knee OA within global populations.

Methods: As part of the Global Burden of Disease 2010 Study, lay descriptions of mild, moderate and severe hip and knee OA were developed. Mild OA was described as a person who “Has pain in the leg, which causes some difficulty running, walking long distances, and getting up and down”; moderate OA “Has moderate pain in the leg, which makes the person limp, and causes some difficulty walking, standing, lifting and carrying heavy things, getting up and down and sleeping” and severe “Has severe pain in the leg, which makes the person limp and causes a lot of difficulty walking, standing, lifting and carrying heavy things, getting up and down, and sleeping”. Between October 2009 and June 2010 these lay descriptions were presented to adults 18 years and over in household surveys in five countries (Bangladesh, Indonesia, Peru, Tanzania and USA) and an open-access web-based survey to establish disability weights (DWs). DWs reflect the severity of each health state on a continuum between zero (equivalent to full health) and one (equivalent to death). WOMAC scores were then used to classify these levels of severity, with mild OA corresponding to a score of 0 to 5, moderate >5 to 13 and severe >13 to 20. For this analysis, having undergone joint replacement surgery was assumed to result in ‘mild’ OA. To determine the proportion of people with hip and knee OA within each of the severity levels, five population-based studies contained WOMAC data that could be categorised into the three severity levels as described above. These data were from USA, Australia and Bangladesh. Estimates of the proportions of OA cases with mild, moderate and severe were pooled using Meta-XL, an excel add-in free-ware.

Results: The lay descriptions of hip and knee OA as presented in the household and internet surveys resulted in DWs of 0.02 (95% UI: 0.01–0.04) for mild, 0.08 (95% UI: 0.05–0.12) for moderate and 0.17 (95% UI: 0.12–0.24) for severe OA. The pooled disability weight for high income countries was 0.04 (95% UI: 0.03–0.06) and for low/middle income countries 0.07 (95% UI: -0.05–0.1). The severity estimates varied between high income and low/middle income countries but not by sex. The proportion of the population within each of the severity levels are shown in the table below, along with 95% Uncertainty Interval.

Conclusions: Population-based data on the severity of hip and knee OA are largely lacking, with no severity data being available/reported for most regions of the world. The DWs were unexpectedly low, with the weight for severe OA being only 0.17. This could be due to difficulties in incorporating all the disabling characteristics of severe OA within a limited lay description. Further work on revising these lay descriptions for future studies is recommended. The available data suggest that within low and middle income countries, a greater proportion of people are living with moderate to severe hip and knee OA than in high income countries where a larger proportion are living with mild OA. For this analysis, joint replacement surgery was assumed to result in mild OA. Access to total joint replacement surgery would vary between high and low income countries, so the proportion with mild OA would be expected to be higher in high income countries than low-income. Severity data were not available over time, so changes in the population, such as aging or an increase in obesity, were not able to be assessed. It is important that future population-based studies assess the severity of OA within different regions and over time. A standardised definition of OA is needed so comparisons can be made between populations.

Proportion of population within OA severity groups

	Mild (Uncertainty interval)	Moderate (Uncertainty interval)	Severe (Uncertainty interval)
High income countries	71% (56%-83%)	27% (16%-42%)	2% (1%-3%)
Low-middle income countries	47% (42%-52%)	36% (31%-41%)	17% (14%-21%)

364 FOR HOW LONG DO PEOPLE WITH OSTEOARTHRITIS SELF-MANAGE BEFORE SEEKING PHYSICIAN CARE? SURVEY ON LIVING WITH CHRONIC DISEASES IN CANADA FINDINGS

K.V. MacDonald[†], C. Sanmartin[‡], K. Langlois[‡], D.A. Marshall[†]. [†]Univ. of Calgary, Calgary, AB, Canada; [‡]Statistics Canada, Ottawa, ON, Canada

Purpose: Self-management prior to seeking physician care is a key period when people with early osteoarthritis (OA) can make lifestyle choices aimed at reducing pain, improving function and slowing disease progression, which could reduce resource use and burden on the healthcare system. Measuring duration of self-management and associated health resource use is important for resource planning; however, it is not routinely captured in health administrative data at the population level. Our objective was to estimate the duration of self-management and associated health care utilization in the proportion of respondents with OA, focusing on hip- and knee-related OA as the most common joints affected, within the Canadian population.

Methods: Respondents were a nationally-representative sample of 4565 Canadians aged ≥20 years from the arthritis component of the 2009 Statistics Canada Survey on Living with Chronic Diseases in Canada, who reported on their experience living with arthritis. We report the percentage of OA and hip-, knee-, or hip and knee-related OA. We estimate mean age of symptom onset and diagnosis, proportion reporting medication use, contacts with health professionals and self-management strategies over the prior 12 months. Estimates were weighted to represent the Canadian household population living with arthritis.

Results: Overall, 1755 (37%) respondents reported having OA (any joint) and no other arthritis diagnosis. Of these, 70% experienced pain in the hip(s), knee(s), or hip(s) and knee(s). The temporal sequence of OA diagnosis and onset of pain varies across individuals. Nearly half (48.1%) of individuals with OA first experienced pain in their hip or knee in the same year as their OA diagnosis, 41.6% experienced pain at least one year prior to diagnosis, and 10.2% of individuals experienced pain following an initial diagnosis of OA. The number of years of self-management is most relevant among those who experienced pain prior to an OA diagnosis. Among these individuals, the average number of years of self-management was 7.7 years. This finding was consistent across location of joint pain but varied across age groups, from 5.6 years among those younger than 50 years of age to 10 years among those 65 or older. In the past year, most respondents used non-prescription medications to manage symptoms (66%), fewer than 25% saw a pharmacist or physiotherapist, and 12% attended an educational class.

Conclusions: Individuals with OA spend a considerable time period self-managing their disease; almost a decade during which they have the opportunity to reduce pain, improve function and slow disease progression. This study fills an existing gap in our understanding of treatment and self-management of OA which cannot be provided by administrative data sources. Researchers and health care professionals need to continue to develop and promote OA management strategies that will help reduce disability associated with OA and advancing age.

365 NON-STEROIDAL ANTI-INFLAMMATORY AGENTS IN REDUCING SYMPTOMS IN KNEE OSTEOARTHRITIS: EFFECTIVENESS OVER TIME

K.L. Lapane[†], S. Yang[‡], T. McAlindon[§], C.B. Eaton^{||}. [†]Univ. of Massachusetts Med. Sch., Worcester, MA, USA; [‡]Virginia Commonwealth Univ., Richmond, VA, USA; [§]Tufts Univ., Medford, MA, USA; ^{||}Mem. Hosp. of Rhode Island, Pawtucket, RI, USA