Osteoarthritis (OA) is important to healthcare providers because it is common, disabling, and expensive to the individual and to society [1]. However, historically OA has not been a priority area either for the clinician or the researcher, compared with inflammatory arthropitides, including rheumatoid arthritis (RA) [2]. The busy clinician may prefer to see patients for whom proven therapies, preferably capable of modifying the disease process, are available; the researcher is guided by the directions funding bodies identify as priorities.

However, the perception of OA is shifting. Clinicians are beginning to appreciate that there is a growing evidence base for non-pharmacological interventions, including orthoses [3], exercise [4] and those with potential for disease modification, such as glucosamine sulphate [5]. Research groups are also appreciating the strategic importance of directing their efforts towards a condition destined to affect the majority of the population, as funding bodies such as the Arthritis Research Campaign change their focus towards studies with a measurable impact on arthritis in the population [6].

This issue of *Rheumatology* includes a paper from a methodically conducted survey of a random sample of 5500 residents aged over 65 yr in Oxfordshire [7]. Rather than focus on pain in a single joint, their analysis allows some appreciation of the spatial and temporal associations of joint pain, which previous surveys have demonstrated is predominantly due to OA. The primary screening question concerned the presence of pain in the hip/knee joint on most days of 1 month during the previous 12 months. This has essentially generated a 12-month period prevalence for pain lasting 1 month or longer, with rates of hip and knee pain of 19 and 33% respectively. This compares to rates of 10 and 18% in those aged 65–74 yr in the United States Health and Nutritional Examination Survey, using an equivalent screening question [8], but is consistent with rates observed in the Tameside study [9], suggesting there is a real difference.

Although the authors take an optimistic view of these findings [7], 11% of the patients had prolonged episodes of both hip and knee pain in that 12-month period and 30% had one or the other; therefore 41% of the over-65s were affected. Hence a large proportion of this population of over-65s had an appreciable burden of pain in one or more weight-bearing joints over a year. However, it is the association of hip and knee pain that is most revealing. Even focusing just on the four major weight-bearing joints, as the authors did, there was an intriguing spatial pattern as only 34% of those reporting hip pain had a single hip affected. Similarly, only 40% of those reporting knee pain had a single knee affected. Conversely, three-fifths to two-thirds of those reporting pain in a knee or hip had pain in more than one joint. Furthermore, this pain had a measurable impact on health status, which increased with the number of affected joints, confirming that this level of joint pain was sufficient to impair health status, as measured by the SF-36. These findings suggest that the overall impact of OA is greater than previously estimated by surveys emphasizing single joint involvement.

The gender difference was most striking for those reporting both knee and hip involvement, giving some credence to the idea that polyarticular disease is more prevalent in females [10]. However, the differences observed here are equally consistent with the known higher rates of joint pain in women [11] rather than differences in structural severity. Although there is good evidence of increased structural severity of knee OA in women over the age of 65 yr [12], those community surveys that included radiographs have shown that the prevalence of structural change in the hip is very similar for both genders [13–15], with as many suggesting that rates are as high in men [16–17] as in women [18–19]. Why should women report more hip pain when structural change is equivalent? The answer is unclear, although a Swedish community survey has shown that the higher rates of joint or muscle pain and symptoms of depression reported by women are associated with psychosocial factors, including unemployment, job strain and low social support or participation [20]. This suggests that future studies examining the gender differences should include these psychosocial variables.

Another striking difference was the proportion with prior arthroplasty of the hip or knee, with point estimates higher in women than men in all age groups, although small numbers resulted in overlapping confidence limits for most groups. Rather than excluding subjects with prior arthroplasty from reporting joint pain, the researchers asked the same screening question. They found that those reporting a prior hip arthroplasty were nearly three times as likely to report hip pain; similarly, those reporting a prior knee arthroplasty were twice as likely to report knee pain. Pain recurring in the replaced joint was a major component of all reported lower limb joint pain, particularly in the oldest age group. This emphasizes the point made by more detailed recent arthroplasty studies, confirming that outcome is poorer when clinically relevant outcomes are assessed rather than joint survival alone [21–22].

The study was well-conducted, including a high response rate for the age group studied and the use of well-validated instruments, such as the SF-36, which leads to good internal validity; therefore, the primary study findings are likely to be real. How well are the requirements for external validity met by the comparatively well-off population of Oxfordshire? Can these results be generalized to other populations in the UK and abroad? While there are many potential genetic and environmental influences on OA, including social class, smoking and ethnic mix, the effects of these are likely to be modest within the UK in comparison with body mass index (BMI) and occupational factors. While the authors do not provide comparison data for body mass index, the rates of obesity appear high. However, they are comparable with other UK estimates, and modest compared with some European countries [23] and the USA [24], where one in five of the population now have a BMI greater than 30 kg/m². This, together with the data from other UK studies discussed above, suggests that these prevalence estimates are likely to be representative of the UK. Indeed, given the trend towards increasing obesity, these rates may increase over time. The international variations seen suggest that caution be used in generalizing the findings to other populations, where a similar approach might define the pattern and impact of joint symptoms more precisely.

Two questions raised by this study are the precise pattern of joint involvement over time and the spatial involvement of other joints, including the hands and feet. These cannot be resolved from the structure of the questionnaire used; indeed, the correlation of symptoms with radiographic change would...
provide a more robust attribution of joint pain to OA, although even this association is itself limited. Only by building a complete spatiotemporal model of joint involvement can the true impact of OA be estimated. By analogy with rheumatoid arthritis, for which the area under the curve of disease activity is one of the best predictors of outcome [25], our appreciation of the episodic nature and inflammatory component of OA [26] must inform the design of future studies.

The implications for the practiseing clinical rheumatologist are clear: isolated single-joint OA is the exception rather than the rule. This is more true in clinical practice than in this community study, since the patients referred to secondary care are likely to be selected for both disease severity and duration. The appreciation of OA as an episodic problem with a variety of treatments, including controlled evidence for multidisciplinary interventions, should lead to a more constructive and positive approach to the clinical management of these patients and should continue to improve the balance of research funding towards problems like OA, with a high prevalence and impact.

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