**Return of the symptom?**

Zoe Paskins1,2

*Senior Lecturer and Honorary Consultant in Rheumatology*

Peter Croft1

*Emeritus Professor of Primary Care Epidemiology*

1Primary Care Centre Versus Arthritis, Institute of Primary Care and Health Sciences, Keele University, Staffordshire ST5 5BG

2Haywood Academic Rheumatology Centre, Haywood Hospital, Stoke-on-Trent ST6 7AG

Identifying women and men at risk of fragility fractures, who can benefit from prevention strategies such as bisphosphonate therapy, is an important topic for clinical and population epidemiology (1). Prevalent vertebral fractures are one marker of such risk (2). Proposals to identify people with previously undetected vertebral fracture include opportunistically and systematically screening radiology reports (3). The advantages of such screening must be balanced against cost, and the risk of identifying people with mild vertebral deformities or old fractures unconnected with risk of future fracture, who might commence long-term drug treatment unnecessarily. Although over-diagnosis and over-treatment need constant evaluation, UK guidance currently advocates opportunistic screening approaches (4).

Many screening proposals assume that the condition of interest is asymptomatic or undiagnosed in clinical practice. The discovery that hypertension usually does not cause symptoms, for example, transformed the landscape of blood pressure measurement in primary care into a routine screening activity rather than an investigation of a patient’s presenting complaint. However, although many people with vertebral fractures in general population studies are asymptomatic, one-third do present with symptoms (5), and clinicians may feel the epidemiology under-estimates the true prevalence of symptoms in these patients. Conditions such as rheumatoid arthritis and ankylosing spondylitis used to remain undiagnosed for long periods until better characterisation of how patients first present helped reduce delay and improve prognosis. Are there, therefore, missed opportunities to identify people with vertebral fractures on the basis of presenting symptoms?

This is the question that the authors of a paper in the current edition (6) are setting out to answer. The paper describes findings from qualitative research, representing the early stage of a programme designed to find out whether specific symptoms could be incorporated into a screening tool to identify which older women with back pain would benefit from further investigation to establish whether they have one or more vertebral fractures. A novel and interesting finding is that previously neglected symptoms or bodily senses, such as feelings of pressure or disturbances of balance, are reported by women with vertebral fractures. Future stages in the programme, using quantitative epidemiological methods, will investigate whether such information has value for guiding investigation and treatment in practice.

As easy-to-measure markers of bodily dysfunction rapidly expand in number, and predictive algorithms emerge that use such information derived from millions of people, it can seem as if the old-world of symptoms is being left behind and traditional bedside medicine gently laid to rest. The claim is that better markers of disease and of early risk for future illness will come from laboratories, fit-bits and chips-under-the-skin. However, symptoms still loom large in the data warehouses of personal health information, including sources from healthcare and administrative databases, social media, search engines, and routine monitoring apps (7). Whether this is the dawn of a golden age of early prediction medicine or not, symptoms are proving an important resource for investigation with these new techniques.

The paper by Drew et al is a collaboration between clinician researchers and social scientists. Symptoms have historically held centre-stage for the clinician, and medical students still learn that the best clues to diagnosis lie in the patient’s history. By contrast, the concern of social scientists, in studying the sick person and the role of medicine in society, has often been to highlight the daily experience of symptoms and their impact on patient lives, irrespective of how they may also guide the doctor to an underlying pathological diagnosis. One reason for this concern is the frequent mismatch between symptoms, pathology and treatment, and the mistaken assumption that, once the underlying cause has been sorted and the pathology dealt with, patients’ symptoms will necessarily disappear. Evidence continues to accumulate about the need to understand symptoms and their impact as important phenomena-in-their-own-right, such as the finding that patients with rheumatoid arthritis whose inflammation has been adequately treated have symptoms of pain and poor function which obstinately persist (8).

Social scientists have renewed the vigour of their warnings to modern high-technology bio-medicine that dealing with measurable components of risk may contribute to wellbeing, but will neither guarantee nor deliver it without attention to the many psychological, social and cultural factors that shape and determine health. The discipline of rheumatology championed the arrival of the patient and public voice to support these concerns, and these voices have helped to drive a wider research agenda into long-term symptoms, such as pain, fatigue and depression, and their inter-relationship with issues such as stigma and work capacity (9).

However, these different implications of symptoms (disease indicators, risk markers, problem in their own right) create a challenge for patient-clinician communication. In public information websites about osteoporosis, statements indicating osteoporosis occurs ‘without any symptoms' appear a few lines away from statements about ‘loss of height, persistent back pain and a bent forward (stooping) posture’ (unpublished observations by Greenall C and Paskins Z, Keele University, quoted with permission). Studies incorporating both patient and clinician perspectives emphasise the need to overcome such dissonances in consultations about fracture risk and osteoporosis (10, 11). Discussion of the clinical significance of symptoms in consultations with patients who have bone fragility is in similar need of clarity.

A positive implication of Drew et al’s paper is that the approach to symptoms as signifier of disease and the approach to symptoms as patient experience are compatible research partners. There are still unresolved issues in the paper, notably how exactly can researchers combine the individual-centred ‘experience’ approach, which values symptoms per se, with the demands of rational clinical epidemiology asking questions like ‘but is that symptom associated with the pathology?’ or ‘how many women with back pain but no fracture also experience these neglected sensations?’. There is also an assumption that a highly medical approach to treatment is relevant both to symptoms and to the outcome of reducing fracture. But part of the interest lies in whether biomedical approaches to disease prevention and the healthcare professional’s concern with patients’ daily experience of symptoms and distress, which so often seem opposed and at odds with each other in the literature, can deliver productive research collaborations into the future, with ultimate benefits for patients.

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