Chronic widespread pain: North and South

Are the factors similar in both developed and developing countries?

Chronic widespread pain is defined as pain that lasts more than 3 months involving both sides of the body, above and below the waist, and the axial skeleton [1, 2]. In most people, chronic pain arises from soft tissues including muscles. Such syndromes as FM [2] are generally not associated with any consistent abnormalities on blood tests or imaging, respond poorly to treatment and can lead to chronic ill health and disability [3]. Chronic widespread pain is a common clinical problem with a point prevalence of 10–11% [1, 4], derived from studies in a small number of countries in the developed world (sometimes termed the North). Few studies have compared epidemiology and its outcome in different countries, especially those from the developing world (the South). In a recent report, surveys were done in cohorts in eight different nations and the prevalence of chronic widespread pain varied from 4.6% in Italy to 15.3% in Estonia [5]. This study included only men between the ages of 40 and 79 years in Europe [5]. Thus, even this unique multinational study bears little relevance to most of the world’s population who live in the developing South, often in rural areas or urban slums. Is chronic widespread pain also a problem in these populations? If so, are the factors which promote development and persistence of chronic widespread pain the same in those people as in subjects studied in developed countries who may have very different lifestyles and work patterns?

In developed countries, several groups have studied factors that predispose to either development of new chronic widespread pain or to its persistence. For example, a series of studies from Manchester, UK have shown that the main factors associated with both onset and persistence are psychological and social rather than physical and include illness-related behaviour, somatization and depression [6]. Even in a tertiary chronic musculoskeletal pain clinic, where the patients had already undergone extensive physical investigation and treatment, we found that low self-efficacy (i.e. low confidence in the ability to undertake activities despite the pain) was much more closely associated with depression and employment status than with physical factors such as site or duration of pain [7]. Such evidence is consistent with the biopsychosocial model of chronic musculoskeletal pain, which suggests that improved outcomes in these patients can only be achieved by addressing their psychological and social needs as well as their physical symptoms.

Does the predominance of soft tissue pain and psychosocial risk factors for onset and persistence of chronic widespread pain also hold true in developing countries? How can we study these questions? The methods used in developed countries rely on the infrastructure necessary to carry out telephone surveys [3], on high levels of literacy allowing postal questionnaire studies [1, 4–6] and/or on accurate population registries [4], or the capability for all three. These prerequisites are generally not available in poor areas of the South, but this does not mean that epidemiological research in those areas cannot or should not be done.

Epidemiological research of this kind has been done by the World Health Organization/ILAR/Community Oriented Program for the Control of Rheumatic Diseases (WHO-ILAR-COPCORD). This collaborative programme developed validated methods including core questionnaires [8], which have been used across Asia, South America, Africa and the Pacific. One such example is a study in Bangladesh where door-to-door interviews were done in three localities: an affluent urban area (n = 1259), a poor urban area (n = 1317) and rural villages 30 km away from the city (n = 2635) [9]. The door-to-door method resulted in a 99% response rate. The overall point prevalence of musculoskeletal pain was 26.3%, very similar in all three localities but higher in women than in men. Prevalence of FM (defined by the international criteria [2]) was 4.4, 3.2 and 3.3% in the rural, poor urban and wealthy urban areas, respectively.

In a previous COPCORD study in northern Pakistan, the prevalence rates for FM were 2.6, 3.2 and 1% in rural, urban poor and urban affluent areas, respectively [8]. These figures from both countries are very similar to those from western populations [1], although the prevalence of FM in the affluent urban population in northern Pakistan was surprisingly low [8]. COPCORD studies have shown that soft-tissue problems are the dominant cause of musculoskeletal pain in the South [10], the same as in the North.

Investigating the effects of this pain on daily life requires different measurements to those used in developed countries. For example, one measurement of disability in the Bangladesh study was the difficulty of getting into a rickshaw [9]. To investigate the role of psychosocial factors in determining onset and persistence of chronic widespread pain in developing countries, we may need to develop and validate translated versions of research instruments used in studies in the North [5, 6] or to use different measurements, which are more suitable for door-to-door interviews. Such measurements could also be useful in studying populations in developed countries who are hard to reach, such as people with poor literacy.
Face-to-face surveys also have the potential to allow clinical assessment so as to accurately identify conditions in which clinical signs are part of the diagnostic criteria (e.g. tender points in FM [2]).

One interesting possibility is to study groups with similar ethnicity in developed and developing countries [8]. A study in 13 general practices in the UK found that the prevalence of chronic widespread pain was 3.7 times greater in south Asians than in Europeans [11], but the increased risk varied between different south Asian groups. Comparison with studies in South Asia itself could help distinguish how much of this difference is intrinsic to each ethnic group and how much is related to factors specific to migrant communities, such as acculturation [11]. However, when comparing the results of studies in developed and developing countries, one must be careful to consider possible effects of factors that may differ between two areas such as vitamin D levels, sunlight exposure and climate. One must also be sure that the diagnostic criteria used to define diseases are applied consistently. For example, although the Bangladesh study [9] used and cited the international criteria for FM [2], it was not clear whether these criteria were used in the earlier study in north Pakistan [8].

In conclusion, we suggest that chronic widespread pain in the North and South may be far more similar than previously thought. We believe that researchers in both developed and developing countries may benefit from collaborative studies.

Disclosure statement: The authors have declared no conflicts of interest.

Anisur Rahman¹ and Syed Atiquil Haq²

¹Department of Medicine, Centre for Rheumatology Research, University College London, London, UK and ²Department of Rheumatology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh.

Accepted 13 October 2009

Correspondence to: Anisur Rahman, Centre for Rheumatology Research, Room 331, Windeyer Institute, 46 Cleveland Street, London W1T 4JF, UK.

E-mail: anisur.rahman@ucl.ac.uk

References


