Musculoskeletal pain on the global stage: what next?

Fiona M Blyth, PhD, FAFPM,¹ Damian G Hoy, MPH, B App Sci (Physiotherapy),²
Lyn M March, PhD, FRACP³

¹Sydney School of Public Health,
University of Sydney, Sydney, NSW
2006, Australia

²School of Population Health,
University of Queensland, Herston
Rd, Herston, QLD 4006, Australia

³Institute of Bone and Joint
Research, Kolling Institute,
Department of Rheumatology,
Royal North Shore Hospital,
University of Sydney, Sydney, NSW
2065, Australia

Correspondence to: F M Blyth
Fiona.Blyth@sydney.edu.au

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ABSTRACT

In this essay, we describe two recent developments in global public health efforts in the chronic pain field and use the example of musculoskeletal pain to explore some of the implications arising from these developments. The first is the recognition of chronic pain as a condition in its own right, which has been the impetus for several national and one recent international pain summits that have translated that into a call for recognition, rights and resources for people with pain. The other development is the first comprehensive attempt to measure the global burden of musculoskeletal conditions in the current round of the Global Burden of Diseases, Injuries and Risk Factors Study (GBD 2010). In essence, the task here has been to translate epidemiological data from all countries where data are available into standardised measures of the overall burden of musculoskeletal conditions to allow comparison of the burden relative to other conditions, and to identify the proportion of the burden that is attributable to a set of common risk factors. Past rounds of the GBD have been influential in priority setting and allocation of health funding by the World Health Organisation and national governments. The current GBD 2010 Study is occurring in the context of changes in thinking about how to fund health care in a global context. These changes are away from disease-specific programmes to more 'integrated' approaches, and thus represent a potential challenge to the calls to consider pain-focussed funding. We explore the strategic implications of both of these developments for translating our better understanding of the problem of musculoskeletal pain into effective policy action.

KEYWORDS

Musculoskeletal pain, Burden of disease, Health policy

In recent times, there have been two major developments concerning musculoskeletal pain and its global context. The first development is the recognition of pain as a condition in its own right [1], and increasing advocacy based on this position. In September 2010, the first International Pain Summit was held in Montreal, Canada under the auspices of the International Association for the Study of Pain (IASP). This summit, attended by representatives of 64 member countries of IASP,

Implications

Practice: Better evidence of the burden of musculoskeletal pain can be used by clinicians to help advocate for resources and recognition of the problem.

Policy: Policy development in the area of musculoskeletal pain should include consideration of the potential for shared solutions with other chronic conditions.

Research: Research should examine the potential effectiveness of a common risk factor approach for reducing the population burden of musculoskeletal pain.

resulted in the Declaration of Montreal ('that access to pain management is a fundamental human right') [1]. The declaration promulgates 'The obligation of governments and all health care institutions, within the scope of the legal limits of their authority and taking into account the health care resources reasonably available, to establish laws, policies and systems that will help to promote, and will certainly not inhibit, the access of people in pain to fully adequate pain management'. However, the declaration does not address primary prevention of chronic pain.

Independently, the current round of the Global Burden of Diseases, Injuries and Risk Factors Study (the GBD 2010 Study) is in progress [2]. In burden of disease (BoD) studies, diseases are ranked according to how much death and disability they cause. The GBD 2010 Study will provide information on disease and injury incidence and prevalence for more than 175 conditions in all world regions, and will produce estimates of the fatal and non-fatal burden of these conditions, as well as the proportion of burden attributable to 20 common risk factors, including behavioural risk factors such as smoking, unhealthy eating and physical inactivity. Evidence-based decision making is increasingly used as a means of ensuring resources are directed to areas of greatest need [3]. BoD estimates are one of the measures that governments and others may use when assessing health priorities, allocating resources and evaluating the potential costs and benefits of

public health interventions [4]. Significantly, the GBD 2010 Study does not include pain as a condition in its own right, but does represent the most comprehensive effort yet to measure the global burden of musculoskeletal conditions (the most common causes of chronic pain). Low back and neck pain are included as discrete conditions, but not other regional pain syndromes [5].

One of the limitations of BoD methods is the definition of disability. Health and function are treated as attributes of individuals rather than environments. Disease is defined as any departure from an 'ideal health state', which is represented by level of function according to a specific set of domains at a particular point in time. Disability weights are then derived for these health states. Generally speaking, broader domains such as participation in one's usual environment, well-being and economic burden, which are all important components of the burden of musculoskeletal pain, are not taken into account when describing health states for a disease and estimating the corresponding disability weights. This issue has been debated since the first GBD study [6]. The weights are reflective of functioning of the body or body parts and functioning of the individual within a standardised environment (i.e. their level of capacity). They do not attempt to take functioning of the individual within their usual environment (i.e. their level of performance) into account. One could argue that this results in an underestimation of the true burden for conditions, such as musculoskeletal conditions, that have an impact on an individual's capacity to function in their daily lives.

Since the introduction of BoD studies in the 1990s, largely non-fatal health problems such as mental and sense organ disorders have been identified as global health priorities, whereas previously, these would not have been given attention in mortality-based ranking lists [7]. Similarly, musculoskeletal conditions such as low back pain and osteoarthritis are likely to be better recognised following the current study.

On the face of it, the conjunction of these two developments (the Montreal summit and GBD 2010) looks propitious, but in reality, it leads to some hard questions about how best to achieve good outcomes for musculoskeletal pain at a global level. In the last decade, there has been increasing recognition of the contribution of non-communicable diseases (NCDs) to the overall global burden of disease. In high- and low- and middle-income economies, NCDs are now the leading cause of death and morbidity. Despite this, there is systematic underfunding of NCD programmes relative to communicable diseases programmes by the WHO [8].

In September 2011, the United Nations hosted a historical summit on NCDs, with the intention of reaching agreement on a global action plan to address them. The main focus was on cancers, cardiovascular diseases, chronic respiratory diseases

and diabetes. Coalitions of chronic disease groups have been increasingly active in the global arena. For example, the Global Alliance for Chronic Diseases [9] advocates for action for cardiovascular diseases (mainly heart disease and stroke), several cancers, chronic respiratory conditions and type 2 diabetes. The Non-Communicable Diseases Alliance [10] focuses on cardiovascular disease, diabetes, cancer and chronic respiratory disease, and has a highly developed advocacy platform ready for the UN Summit based on the identification of common risk factors across these chronic conditions (including tobacco use, physical inactivity and unhealthy diets) and the potential for shared solutions and collaborations. Chronic musculoskeletal conditions share modifiable risk factors with other chronic conditions (for example, obesity is a risk factor for osteoarthritis and low back pain). A common risk factor reduction approach (for example, programmes aimed at reducing obesity and increasing physical activity) could be effective in reducing the global burden of musculoskeletal pain as well as other chronic conditions. Certainly, increasing physical activity levels is a key component of multi-disciplinary cognitive-behavioural pain treatment programmes. However, the Montreal declaration [1], while rightly drawing attention to problems with access to effective pain management (including those that have a bio-psychosocial approach), offers little on the question of access to preventive strategies for people with pain, even though the same types of assessment and interventions would be involved.

This strategic approach would align with what might be considered the NCD 'global health rhetoric' with its focus on common risk factors that offer the prospect of 'leveraged' prevention [11]. Increasingly, and in low- and middle-income countries in particular, there is a move away from fragmented 'vertical' condition-specific disease programmes (e.g. a programme solely focused on malaria in children) towards more integrated health system-strengthening approaches (e.g. the integrated management of childhood illness-IMCI) [12]. There are several reasons for this. Cassels and Janovsky highlighted a number of the pitfalls of vertical condition-specific programmes, including fragmentation and duplication, competition from projects (e.g. from non-government and international organisations) for national staff resulting in them not performing their usual duties within the health system [13]. Disease-specific programmes can weaken already-compromised systems and result in other areas being neglected [14]. Thus, opportunities for collaboration in the prevention and management of chronic pain within the health sector, and also between sectors, should be explored and encouraged. This is important globally, but particularly in low- and middle-income countries where the need to avoid duplication and ensure streamlined, cost-effective initiatives is especially prominent. For example, physical activity can help to prevent

cardiovascular disease, colon and breast cancers, type 2 diabetes and osteoporosis. It can also help to prevent disabling low back pain. Collaboration between groups working on these diseases can result in strategies for improving physical activity, reduce resource wastage and ensure consistent public health messages are provided. Collaboration across all sectors in promoting physical activity both in and outside the workplace could improve programme coverage, and also reduce resource wastage.

In conclusion, the profile of musculoskeletal pain and its related burden of disease is increasing through global health initiatives, some of which are uniquely focussed on pain. This is likely to result in a surge of advocacy from those interested in reducing the global burden of musculoskeletal pain. To effectively translate these initiatives into action for chronic pain more generally, clinicians, researchers, policymakers and advocates will have to decide where pain fits, how best to prevent it and what to do next strategically in the complex and dynamic global health landscape.

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