Controlling the burden of spinal disorders in low- and middle-income countries

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Spinal disorders, including back and neck pain, are a major burden on individuals and societies globally. Most people will suffer at some time in their lives from an episode of disabling back pain, which is often short-lived but may be recurrent and some become chronic. The costs are high. Back pain is one of the most common causes of work loss, and the financial impact falls on individuals, their families, employers due to lost productivity and on society as a whole through lost economic activity, and through the costs of health and social care. Although universal health coverage is a goal of the United Nations and World Health Organizations, many countries do not have systems to rehabilitate or support people unable to work because of health problems. Then, the burden falls on the individual and their families. This is particularly the scenario in low- and middle-income countries and in some high-income countries. With younger workers moving to urban areas and into sedentary work leaving older family members to work on the land, these demographic changes will increase the economic impact of disabling back pain.

This series of papers from the Global Spine Care Initiative [1–15] addresses all spine disorders that an individual or community may experience. As an important component, these papers highlight the burden of low back pain measured at a population level using summary measures of health [disability-adjusted life year (DALY) and health-adjusted life expectancy (HALE)] but also recognise the need for a greater understanding of how spinal disorders impact on the lives of people in ethnically and culturally diverse populations where the physical demands and expectations may be different. Socioeconomic factors strongly influence pain and its impact, but our understanding of these largely relates to people in high-income countries with few studies in low- and middle-income countries. A greater understanding is needed of the burden on people and their lives in these populations. However, there are sufficient data to know there is a compelling case for action to prevent and control low back pain.

The problem is so pervasive through societies at all ages that a public health approach is needed and policy-makers have been called to take action [16–18]. How do we ensure people develop a healthy musculoskeletal system that functions in a way to minimise risk throughout life? How can we prevent injuries through better behaviours and physical use of the spine taught from childhood and emphasised in any setting where risks are higher such as in the workplace or in certain sports? Can we prevent back and neck pain or is it more realistic to ensure rapid recovery and minimise the impact of an episode and, most importantly, prevent it becoming chronic as that is where it has the greatest impact and cost? How do we make people more resilient to episodes of spinal pain so that they keep mobile and active despite it since, like the common cold, we know that most episodes will resolve without medical intervention? We also know that medicalising the problem can increase the likelihood of it becoming long term. However, there are cases of acute back pain when early intervention is appropriate but how do we recognise them and what interventions are cost-effective? How do we recognise early those who will develop chronic neck or back pain and those who will benefit more from a medical or a psychosocial intervention? There are numerous systemic reviews and guidelines based on what evidence is available, and, in this series, a recommended classification system, care pathway and model of care have been developed based on these reviews and by a consensus approach through a modified Delphi process.

The target population of the Global Spine Care Initiative is any community in the world but especially focuses on low- and middle-income communities and underserved areas. However, much evidence about back and neck pain and factors affecting impact and chronicity has been acquired in high-income country populations and not in the ethnically
and culturally diverse populations who are being targeted. More knowledge is needed, but it is clear that the burden in low- and middle-income communities is increasing and will continue to do so with urbanisation and increasing life expectancy. How do we ensure people in these areas do not become sedentary and lose physical fitness as has happened in developed countries and communities? How do we reduce injuries by better work conditions when health and safety practices in the workplace may not be as developed as in high-income countries and many will be doing heavy physical tasks in a self-employed capacity? How do we ensure health systems in any country provide access to high-value care for spine-related disorders; encouraging and supporting people to stay active and self-manage their problem rather than medicalising their back pain and over-investigating and over-treating as happens in high-income countries? This may be influenced by commercial drivers as there are many people with back pain chasing a cure and many commercial options that may help but have poor value. That is why, clear models of care are welcome that take people through a pathway with clear points of triage to ensure they get the right care at the right time and for the right cost.

This GSCI series of papers considers implementation, and this is crucial to any programme that aims to reduce the burden of such a common problem as neck and low back pain. It needs to be clear what has to be done at the micro-level, by people themselves, either those with low back pain or those managing it, and what has to be done at the meso-level, by the health-care providers understanding how to deliver evidence-based care as recommended by the model of care. There are numerous guidelines though for low back pain with a long tradition of them being put on shelves and not being put into practice. Implementation of models of care needs a clear plan and an understanding of what is needed of the health system for it to happen at the macro-level. Surveillance is needed with agreed person-centred outcome measures to ensure the models are achieving their goal. These need to be relevant to all people in low- and middle-income populations and also in underserved communities. The barriers and enablers to implementing the model of care need to be understood so that policy-makers can ensure the health system is fit for purpose and ensures equal access to care. However, it is not just the health system that is relevant as the impact of back pain and spinal disorders relate to a wide spectrum of socioeconomic determinants. It therefore also needs a cross-sectoral approach as the solutions do not just sit within health care. By taking such a broad approach, then there is a possibility that low back pain and other spine concerns can be effectively prevented and controlled within the confines of what is currently feasible.

The Global Spine Care Initiative is an ambitious programme based on need, enthusiasm, commitment, expertise and evidence. We still need more knowledge. In particular, we need a fuller understanding of spine-related disorders within the ethnically, culturally and socioeconomically diverse populations of low- and middle-income and underserved communities. We also need to know whether the GSCI approach does make a difference in such populations. We need to test and learn collecting data to establish whether implementing such a programme does make a difference. These efforts must use outcome measures relevant to people in these countries and communities. In a time of limited resources, we have to demonstrate a return on investment being made by society and most importantly by people with spine-related disorders.

Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

References

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