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Lancet Series

The “Magnum Opus” Regarding the Evidence on Low Back Pain

Raymond Ostelo, PhD

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There is one very consistent line of observations in the back pain literature: Back pain is extremely common, it is the biggest cause of disability globally, it affects all age groups, and most people will experience at least one episode. Recently, the Lancet Low Back Pain Series Working Group published a series of three papers with a fervent plea to identify cost-effective and context-specific strategies for managing low back pain (LBP). The authors call for a strong and coordinated political action from international and national policy makers, including World Health Organization (WHO) and research funding agencies. They argue that these two avenues have the potential to substantially reduce the burden of LBP throughout the world. *The Lancet* articles attracted considerable media attention around the globe. The reason for this could be that they offer “dramatic and disturbing messages about LBP and its management globally.”¹

A first (disturbing) message concerns the current situation in low-income and middle-income countries (LMICs). Since influential book by Waddell “The back pain revolution,”² there has been an prevailing view that LBP does not affect people or the society in LMIC as much as in the western world, as people were thought to continue their daily activities, despite LBP. Things have either changed or we now have more accurate LBP-figures. Years lived with disability caused by LBP have increased by more than 50% since 1990, *especially* in LMICs.^{3,4} Disability related to LBP is projected to increase most in LMICs where

resources are limited, access to quality health care is generally poor, and lifestyle shifts toward more sedentary work. So, to whatever extent it was not already the case, LBP is now indeed a global disease.

Second, the articles highlight very eloquently that LBP is a complex condition with multiple contributors to both the pain and associated disability, including psychological factors, social factors, biophysical factors comorbidities, and pain-processing mechanisms.⁴ However, intuitively obvious this multifactorial nature may seem, the reality is that the evidence for most “well known” risk factors is not overly convincing. Recently, central pain processing and modulation has attracted particular attention. The idea is that in chronic pain, “normal” nociceptive and sensory input is processed in such a way that it leads to “exacerbated interpretation” in the relevant pain-related areas in the brain. Indeed, there is evidence at a fundamental level suggesting these mechanisms play a role. However, the clinical implications of these findings are not so clear yet.

Another (grim) message reflects on the management of LBP, more specifically, on the massive gap that exists between evidence-based medicine and the management delivered in every day care.⁵ Notwithstanding some minor differences, there are rather consistent recommendations in the various evidence-based clinical guidelines internationally. The general message is that the first line of care should consist of education about the condition and “simple” physical and psychological therapies that keep people active and enable them to stay at work. But the *Lancet* articles also stress that even the management strategies judged effective draw on limited evidence, which opens the possibility for health care providers to use various other strategies. Unfortunately, a substantial number of the strategies currently applied, promoted, and reimbursed in daily practice are more aggressive treatments of dubious benefit associated with potential harms. For example, painkillers that have a limited positive effect, at best, are routinely prescribed for LBP, with a very little emphasis on interventions that are (more) evidence-based such as exercises. This touches upon a very important message of the *Lancet* articles: Successfully addressing the numerous problems responsible for the inadequate care of back pain will require a coordinated approach involving all the key stakeholders.⁶ Two of the most important points to that respect in this “call for

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action” are therefore focused on the health care and research system: First, health care funders should stop paying for ineffective and harmful tests and treatments and commission research on those that are unproven. Second, new tests and treatments should not be marketed before they have been adequately tested for safety, efficacy, and cost-effectiveness.

It may be obvious that these are challenging issues that will not happen overnight. Publishing these articles is a good first step and the authors deserve all praise for the fact that this is accompanied by a dissemination campaign. Informing all relevant stakeholders is very important, but for *real change* more than simply informing relevant stakeholders is needed. In a world in which complex organizational structures and vested interests are dominant, the challenge now is to transform this “call for action” into “real change.” Whether the *Lancet* series turns out to be the

flywheel for a substantial change in the care of back pain is in the future.

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