

Education in Musculoskeletal Health — How Can It Be Improved to Meet Growing Needs?



Education of future doctors is key for better global health, including musculoskeletal health. A central strategy of the Bone and Joint Decade (BJD) is to improve the education of health professionals so that it reflects the burden of musculoskeletal conditions and meets the needs of people with or at risk of musculoskeletal problems¹. This is not the case at present^{1,2}.

Musculoskeletal conditions affect one in 5 adults and are the commonest cause of physical disability³, the commonest reason for longterm treatment in Europe⁴, and the second most common reason for consulting a doctor. In many countries musculoskeletal conditions constitute 10%–20% of the reasons for primary care visits⁵ and they are also common as comorbidities. Despite this, the basic education of doctors about musculoskeletal conditions is lacking, and it is possible to graduate from medical schools around the world without proper training in musculoskeletal medicine. Primary care training programs often do not include specific experience with musculoskeletal conditions. There is a range of specialties involved in the management of the spectrum of musculoskeletal conditions, including rheumatology, orthopedics, pain physicians, geriatrics, sports medicine, and occupational medicine. However, at the specialist level there is a lack of common education between these specialties, although integrated multiprofessional and multidisciplinary care is recommended^{4,6,7}. Training programs for these different disciplines are seldom linked and do not have similar learning objectives, despite often relating to the management of identical problems. In addition, there are few multidisciplinary educational activities at local, national, and international levels that bring together all the relevant disciplines.

This lack of basic education in musculoskeletal health and disease and lack of coordination between different disciplines is clearly not the best way to achieve effective management of musculoskeletal problems. As a result many

people do not get the best treatment^{2,8} in either primary or secondary care, as clinical skills and understanding of all treatment options by the different disciplines are insufficient. For example, approaches to management of osteoarthritis of the knee may be very different between primary care, rheumatology, and orthopedics; and the patient journey can be prolonged by inadequate management along the way⁷.

Ways to improve the situation include standardized learning objectives for musculoskeletal conditions at all levels from undergraduate to the different disciplines involved in their management, and improved coordination between different specialist training programs.

In this issue of *The Journal*, a study by Wadey and colleagues⁹ describes a high degree of commonality between learning objectives of the different specialties and asserts that it is possible to develop a multidisciplinary core curriculum for specialist training programs.

The initial step in the improvement of care is to establish recommendations for core competencies that all doctors should have when qualifying, irrespective of their future clinical practice. These competencies can then be built upon in the specialist training programs depending on specific needs. Such global recommendations for core content of an undergraduate musculoskeletal curriculum have been developed by the Bone and Joint Decade Education Task Force and persons with an interest in education from all parts of the world and from the spectrum of relevant specialties². All possible knowledge, skills, and attitudes that may be relevant to musculoskeletal conditions were prioritized, according to commonality of the problem in society and urgency of management to identify a minimum level of competence for managing patients with musculoskeletal problems. These core competencies aim to strengthen the foundation for future clinical practice and to delineate between core competence when leaving a medical school

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and competence that should be gained during postgraduate training. Basic clinical skills in history-taking to gain a full understanding of people's problems and their effect, as well as examining the musculoskeletal system, were strongly emphasized.

Wadey and colleagues⁹ have taken these recommendations one step further² to establish core competencies in specialist training programs in Canada for disciplines that have a major involvement in the management of musculoskeletal conditions. They asked program directors to identify key learning objectives for residents in their own disciplines of family practice, emergency medicine, sports medicine, physical medicine and rehabilitation, orthopedics, and rheumatology. Their study highlights the variety of disciplines dealing with musculoskeletal problems and the wide spectrum of conditions, ranging from arthritis to trauma and malignancy. Nevertheless, a high degree of agreement was noted between the different specialties about core competencies, and there was universal consensus that ability to take a good history and complete a thorough and accurate physical examination relevant to a musculoskeletal system are the most important items. However, these competencies are not always formally taught or appraised. There is little standardization of clinical assessment between the different specialties, and the evidence base for many of the clinical tests is also poor. In addition, poor communication is a major reason for patient dissatisfaction. More priority should be given to this part of training to develop expertise: initiatives such as the Patient Partner Programme¹⁰ can be instrumental. Wadey also found general consensus in all specialties about the importance of recognizing emergencies and red flags. The differences in competencies proposed, not surprisingly, related to the true or perceived need for that competency in a given clinical practice setting. For example, fracture management is not a priority for family practice in general, although there may be other communities where family practice is the first line of management, i.e., where orthopedic services are more limited and centralized. Not all specialties acknowledge the importance of providing lifestyle advice, despite the effects of obesity and lack of physical activity on musculoskeletal health¹¹; the growing impact of poor lifestyles on public health is increasingly a concern¹². While it is understandable that rheumatologists do not prioritize competencies related to trauma, it is disappointing that emergency medicine does not appreciate the importance of the spectrum of management strategies for acute and chronic musculoskeletal disorders. Early broad based interventions are important in preventing chronicity of musculoskeletal problems¹¹. Two areas not highlighted by the BJD recommendations were research and critical appraisal skills: these should be part of the general undergraduate curriculum; but it is welcome to see their importance identified by specialties. Overall, the degree of consensus about a broad spectrum of competen-

cies for a wide range of conditions is encouraging. This is recognition that the best management of musculoskeletal problems needs a broad set of common competencies from a variety of specialties, each with its own additional specific skills.

Validation of the BJD recommendations for a global undergraduate core curriculum should strengthen the case for implementation at the undergraduate level. It is essential that musculoskeletal medicine be included at the level of undergraduate curriculum and implemented in medical education worldwide, to reflect the burden of musculoskeletal conditions. Although the BJD recommendations, which offer a framework for any medical school reevaluating the curriculum, already serve as a basis for change in several countries, there is much competition for inclusion in the undergraduate curriculum; a major barrier to implementation is lack of time and priority. Implementation can also be driven by assessment, and ensuring that competency in the management of musculoskeletal problems is included within the assessments of undergraduates is also important. Successful implementation therefore requires wide dissemination of the recommendations, along with identifying and working with the key decision-makers such as the curriculum committee, accreditation body, and the examination board.

The commonality of recommendations for the different disciplines and the ability to propose a Canadian multidisciplinary core curriculum for musculoskeletal health mean that a move to more commonality and integration for part of training should be considered. Agreement on competencies will also facilitate development of common teaching approaches and materials, such as an online course proposed by Wadey. A more integrated approach to training, ensuring the achievement of common core competencies, would improve clinical care by providing a more coordinated approach to management, with each discipline having a greater understanding of all the options for management yet maintaining its own special areas of expertise. This would better meet the needs of new ways of providing care for people with musculoskeletal problems, such as integrated clinical assessment and treatment centers proposed in the UK⁷. A challenge will be to include such broad based training within the reduced timeframes imposed by regulations on the working week in many countries.

This study also shows that the implementation of the BJD Undergraduate Curriculum will provide a strong basis for all doctors and can also be developed for use in specialty training. The implementation of the Canadian multidisciplinary core curriculum for musculoskeletal health will ensure that all disciplines have a more coordinated approach to the management of musculoskeletal problems. Both these initiatives should help achieve the ultimate goal of the Bone and Joint Decade: To improve health related quality of life

of those with musculoskeletal conditions. Outcome should improve for persons with a musculoskeletal problem, whoever they happen to see.

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REFERENCES

1. Akesson K, Dreinhöfer KE, Woolf AD. Improved education in musculoskeletal conditions is necessary for all doctors. *Bull World Health Organ* 2003;81:677-83.
2. Woolf AD, Walsh NE, Åkesson K. Global core recommendations for a musculoskeletal undergraduate curriculum. *Ann Rheum Dis* 2004;63:517-24.
3. Woolf AD, Pfleger B. Burden of major musculoskeletal conditions. *Bull World Health Organ* 2003;81:646-56.
4. European Opinion Research Group EEIG. Health, Food and Alcohol and Safety. Special Eurobarometer 186. European Commission, 2003. [Internet. Accessed Jan 4 07] Available from: http://ec.europa.eu/health/ph_determinants/life_style/alcohol/-documents/ebs_186_en.pdf
5. Rasker JJ. Rheumatology in general practice. *Br J Rheumatol* 1995;34:494-7.
6. Woolf AD. Health care services for those with musculoskeletal conditions: A rheumatology service; Recommendations of the UEMS Section of Rheumatology / European Board of Rheumatology 2006. *Ann Rheum Dis* 2006; *Ann Rheum Dis* 2006 Dec 7; Epub ahead of print
7. The musculoskeletal services framework. A Report by the Department of Health, UK. 2006. [Internet. Accessed Jan 4 07] Available from: <http://www.18weeks.nhs.uk/cms/ArticleFiles/gm5hdlexqmhak-bqwzzxfb32t19102005124130/Files/MSF.pdf>.
8. Woolf AD, Zeidler H, Haglund U, et al. Musculoskeletal pain in Europe: its impact and a comparison of population and medical perceptions of treatment in eight European countries. *Ann Rheum Dis* 2004;63:342-7.
9. Wade VM, Tang ET, Abelseth G, Dev P, Olshen RA, Walker D. Canadian multidisciplinary core curriculum for musculoskeletal health. *J Rheumatol* 2007;34:567-80.
10. Woolf AD, Akesson K, Amin N, Shoebridge H, on behalf of the Patient Partner Education Working Group. Improving patient care by involving people with arthritis as educators of primary care physicians: the Patient Partner Programme. Abstract 30 11 AMEE (Association for Medical Education) Meeting, 14-18 September 2006, Genoa, Italy.
11. European Bone and Joint Health Strategies Project. ISBN 91-975284-0-4. Bone and Joint Decade, Lund, 2004. [Internet. Accessed Jan 4 07] Available from: http://ec.europa.eu/health/ph_projects/2000/promotion/fp_promotion_2000_exs_15_en.pdf
12. Gaining Health. The European strategy for prevention and control of noncommunicable diseases. Report of the 56th Session of the WHO Europe Regional Committee for Europe, Copenhagen, 11-14 September 2006. [Internet. Accessed Jan 4 07] Available from: <http://www.euro.who.int/Document/RC56/edoc08.pdf>