



SOCIAL ORTHOPEDICS- FROM COVERT TO OVERT

Community Medicine

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ABSTRACT

The span of Orthopedics has been increasing along with the increase in the global socio-economic development. High prevalence of Vitamin D deficiency, joint pain, osteoporosis, disabilities in India calls for the need of introducing 'Social Orthopedics'. A policy of reciprocity between the departments of Community Medicine and Orthopedics may be introduced. This would give birth to common understanding and create common knowledge with beneficial overlapping research and local innovations. The way forward lies in defining 'Social Orthopedics' meticulously, exploring the scopes and to debate scientifically whether this term may be recognized and introduced into post graduate medical education as an overt curriculum rather than being a covert curriculum only.

KEYWORDS

Social Orthopedics, local innovation, overt curriculum, covert curriculum

INTRODUCTION

Orthopedics is the branch of medical science that basically deals with the various conditions of the human musculoskeletal system, more conspicuously with the skeletal system. The span of this discipline has been increasing along with the increase in the global socio-economic development.

With the advancement of civilization, human beings have either discovered or invented remedies for all the threats to human life including diseases. Much have been done and achieved in the field of infectious diseases. Humans have developed a living style which is safe, secure, convenient and comfortable. However with this change, a plethora of newer disease have insinuated into the human existence along with the continuously endemic presence of the infective ones, especially in developing nations like India.

The Need for social orthopedics

The scope of conditions observed by the practitioners of Orthopedics in India is wide. The burden of diseases includes etiologies like injury, infective, neoplastic, degenerative, and metabolic diseases in various phases of their natural history.^[1] It is paradoxical to see that in spite of receiving sufficient sunshine, the prevalence of country wide hypovitaminosis D in India is very high ranging from 70 to 100%^[2] across all gender and age group and belonging to different socio economic strata^[3] and with no urban rural disparity^[4]. India particularly may suffer due to the practice of vegetarian diet, cultural practice of using full length body covering cloth and socio economic status.^[5] Effects of vitamin D deficiency ranging from rickets, osteoporosis to potential role in reducing the risk of carcinoma, autoimmune diseases and cardiovascular diseases^[6] are abundant in medical literature. This high prevalence of insufficient vitamin D needs community intervention at the community level rather than individual treatment.

With the increase in longevity and advancement of medical science globally an increase in geriatric population has been rising. India currently houses 104 million people above 60 years of age which is about 8.6 % of the total population.^[7] There has been the demand for a better quality of life with ageing. The normal wears and tears of musculoskeletal system with ageing are well documented and conspicuous. The overall prevalence of musculoskeletal disease is 71.65%^[8] amongst the elderly. Joint pain and Osteoarthritis prevalence ranges from 3.66% to 78.27% amongst the geriatric population in various geographical regions within India.^[9] Osteoporosis is yet another commonly encountered condition among the elderly. Fracture due to fall and pathological fracture of bones are also largely seen amongst the elderly.

Roads are the cause and effect of economic development. Increased mobility due to abundance of various means of transportation has resulted in increase in the numbers of Road Traffic Accident (RTA). RTA is growing to a palpable public health problem in India. Two thirds of the deaths due to RTA occur in the productive age group of 15-44 years of age.^[10] Disability caused by RTA leads many to lose livelihood or warrants an adjustment in livelihood and lifestyle with

rehabilitation. The community and society has a role in accepting the differently abled population. As India is developing, the transition from field jobs to indoor desk job has led to the creeping in of diseases like low back ache, cervical spondylosis, intervertebral disc prolapse, vitamin D insufficiency etc.

The proposed model of curriculum

The need to introduce community orthopedics is visible at this juncture. Now the question arises so as to how to introduce this concept into mainstream medical practice. A policy of bilateral arrangement may be thought of where in students perusing post-graduation in orthopedics may be posted in Community Medicine department to learn about the intricate nuances and the dynamics of a community in the context of orthopedics needs. Similarly, students from post-graduation course in Community Medicine may be posted in Orthopedics department to understand the technicalities and to acquire the skills needed to deal with the basic orthopedic conditions prevalent in the typical Indian society. This reciprocity in training would bring about a common understanding and create common knowledge with beneficial overlapping research and local innovations. This would make a niche in medical science which would attempt to bring together the preventive, promotive, curative and rehabilitative methods of dealing with musculoskeletal system.

Rigorous quality training of MBBS students (Indian Medical Graduate) in Orthopedic knowledge and skill to deal with the preventive and basic curative methods as they are ought to be the physicians of first contact in the community.

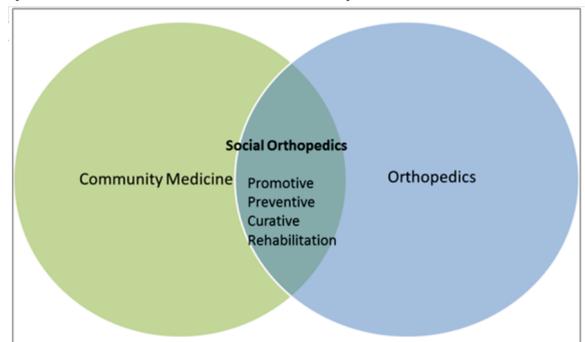


Fig: Schematic model depicting the region of common knowledge and skill (Reproduction only after permission; Dr Sarkar AH)

CONCLUSION

India currently shares 1.28% of its GDP in healthcare.^[11] Approximately there is only 1 orthopedic surgeon against every 62,500 population in India.^[12] Preventable and early treatable musculoskeletal conditions if not addressed at the right time in the right way becomes a financially and socially costly affair later. With most of the Indian population relying on public health institutions, it

becomes obligatory to look at the bone health of the nation with pragmatic approach with an aim to increase the reach to adequate nutrition and to reduce the inequity in access to health care. Leaving behind the musculoskeletal conditions would ultimately act like an unseen void in achieving the long cherished dream of universal health coverage. The curriculum in Community Medicine has always been dynamic and been adapting to the needs of the community and society. However, the present day curricula of both the disciplines of Community Medicine as well as Orthopedics unfortunately do not address this issue of musculoskeletal health adequately as a curriculum. With limited health care budget, inadequate numbers of orthopedic specialist and increasing burden of musculoskeletal conditions, social orthopedics appear to be the imminent need of the hour in the Indian context. The way forward lies in defining the term meticulously, exploring the scopes and to debate scientifically whether this term may be recognized and introduced into medical education as an overt curriculum rather than being a covert curriculum only.

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