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Original Article

Occupational Health: Meeting the Challenges of the Next 20 Years

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ABSTRACT

Background: The industrial revolution that took place in the United Kingdom (UK) between 1760 and 1830 led to profound social change. Occupational medicine was concerned with the diagnosis, treatment, and prevention of occupational diseases, that is, diseases directly caused by exposure to workplace hazards. A similar pattern of development has occurred globally.
Methods: A review of relevant literature.
Results: The international conceptualization and development of occupational health occurred during the 20th century. A new paradigm for occupational health has emerged that extends the classical focus on what might be termed "health risk management" that is, the focus on workplace hazards and risk to health to include the medical aspects of sickness absence and rehabilitation, the support and management of chronic noncommunicable diseases, and workplace health promotion.
Conclusion: The future strategic direction for occupational health will be informed by a needs analysis and a consideration of where it should be positioned within future healthcare provision. What are the occupational health workforce implications of the vision for occupational health provision? New challenges and new ways of working will necessitate a review of the competence and capacity of the occupational health workforce, with implications for future workforce planning.

1. Introduction

This paper examines the evolution that has taken place in occupational medicine and occupational health (OH) from the second half of the 20th century and discusses the paradigm shift in practice that is now faced by OH practitioners. New challenges and new ways of working will necessitate a review of the competence and capacity of the OH workforce, with implications for future workforce planning.

2. Evolution of occupational medicine

The industrial revolution that took place in the UK between 1760 and 1830 led to profound social change, with rapid urbanization associated with squalid living conditions and epidemics of infectious diseases [1]. Working and residential conditions in the 1830s and their effects on adults and children were recorded by Charles Turner Thackrah, regarded as the father of occupational medicine in the UK [2]. Consideration of the health and well-being of workers reflects prevailing social attitudes and tends to lag behind periods of significant industrial change. The UK government gradually introduced legislation to protect the health of workers, in light of the increasing public intolerance of such conditions. Occupational medicine was concerned with the diagnosis, treatment, and prevention of occupational diseases, that is, diseases directly caused by exposure to workplace hazards. A similar pattern of development has occurred globally.

The international conceptualization and development of OH occurred during the 20th century. Key influences were the establishment of the International Commission for Occupational Health, in 1906, and the establishment of the Industrial Labour Organisation, after the Second World War. The International Labour Organisation (ILO) convention 161 (1985) described the components of workplace OH provision [3]. Concepts of OH have developed subsequently, influenced by the World Health Organisation (WHO) definition of health [4]. Health is a positive affirmation of physical, mental, and social well-being, not merely the absence of disease. There has also been the recognition that OH has a positive contribution to make to the performance of enterprises and to the well-being of the communities in which

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they are based. The WHO Europe concept of health, environment, and safety management in enterprises described comprehensive OH as the long-term maintenance of the working ability of employees, taking into account occupational, environmental, social, and lifestyle determinants of health [5] More recently, the WHO healthy workplace model has portrayed a healthy workplace as "one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of all workers and the sustainability of the workplace" by considering four discrete, albeit linked, areas [6]. These are: (1) health and safety concerns of the physical work environment; (2) health, safety, and well-being concerns in the psychosocial work environment, including work organization and workplace culture; (3) personal health resources in the workplace (support and encouragement of healthy lifestyles by the employer); and (4) ways of participating in the community to improve the health of workers, their families, and members of the community.

At the core of the model is the need to secure the engagement of the workforce via effective leadership, and the promotion of workplace culture and values that underpin health and well-being (Fig. 1). There is now a body of evidence showing the relationship between workplace health and well-being, worker engagement, resilience, and productivity [7]. Thus, OH may be promoted as contributing much more than the prevention of occupational diseases and illnesses; there is a strong business case to be made in terms of the productivity of organizations as well as the public health of communities.

A new paradigm for OH has emerged that extends the classical focus on what might be termed "health risk management"—that is, the focus on workplace hazards and risk to health—to include the medical aspects of sickness absence and rehabilitation, the support and management of chronic noncommunicable diseases, and workplace health promotion. The importance of sickness absence as a global health measure has been highlighted by Kivimaki et al [8] in the Whitehall II studies. A report from the Organisation for Economic Cooperation and Development on sickness, disability, and work [9] has shown that long-term sickness absence is high in many member countries of the Organisation for Economic Cooperation and Development, and this is linked to disability inflow rates. The report identified a need to produce guidance for health professionals to maximize health outcomes and minimize inappropriate sick leave. The importance of incentives for employers to provide work environments that strengthen, rather than compromise, physical and mental health of workers was emphasized. In the UK, a review of sickness absence recorded that, every year, 140 million working days are lost to sickness absence [10]. Although most people return to work after a short period of absence, approximately 300,000 people fall out of work and claim health-related state benefits. Worklessness is associated with significant personal and financial cost. It has also been recognized that the longer someone is out of work, the harder it becomes to return to work. Consequently, the authors recommended the creation of a new type of service, available to people absent from work because of illness, which would provide an in-depth assessment of physical and/or mental health. This would form the basis for bespoke advice on how to return to work. It is anticipated that the service would be provided by appropriately skilled occupational therapists, physiotherapists, general practitioners, and nurses, as well as by OH professionals. There is a strong evidence base to support vocational rehabilitation, with particular emphasis on common health problems, such as mild to moderate musculoskeletal, mental health, and cardiorespiratory conditions [11]. These conditions account for two-thirds of long-term sickness absence. A key feature of vocational rehabilitation, which should influence future healthcare planning and commissioning, is that clinical treatment alone has little impact on work outcomes. Effective vocational rehabilitation depends on work-focused healthcare and accommodating workplaces, thus highlighting the role of OH practitioners in future integrated healthcare pathways.

Many industrialized countries are facing the challenges of an aging population and workforce. In the United States of America, it is projected that by 2020, 25% workforce will be aged $\geq$ 55 years [12]. In Europe, it is predicted that a combination of reducing birth rates and rising life expectancy will halve the ratio between people of working age and people over the age of 65 years by 2060 [13]. Asia too will have to address this phenomenon. Japan is considered

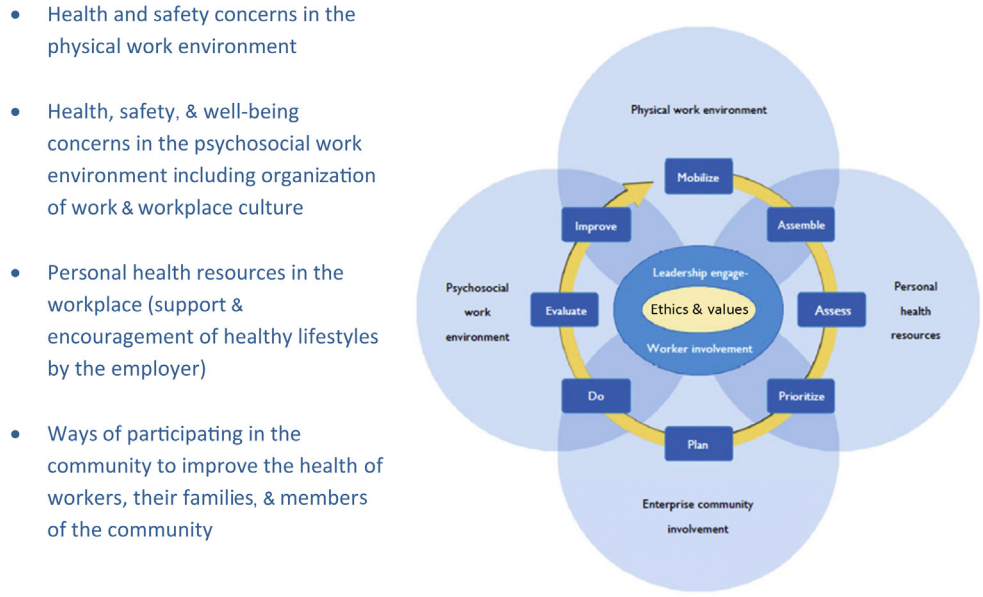

Fig. 1. World Health Organisation healthy workplace model.
Note. From: World Health Organisation (WHO). 5 Keys to Healthy Workplaces. WHO global model for action [Internet]. Geneva (Switzerland): WHO. 2011 [cited 2015 Feb 25]. Available from: http://www.who.int/occupational_health/5_keys_EN_web.pdf?ua=1. Copyright 2011, WHO.