

Book Reviews

Global Occupational Health. Guidotti TL (ed). New York: Oxford University Press, 2011, pp. 624, £36 (hardback). ISBN 978-0-19-538000-2.

This is an excellent textbook of occupational health,¹ which has been published at a crucial time in the development of global health. Occupational health is becoming more, rather than less, important on a global basis, as recent changes in the global economy have shifted manufacturing and its attendant hazards out of Europe and North America to rapidly developing economies in which millions of workers are routinely exposed to serious risks, an issue that, disgracefully, is omitted from virtually every discussion of ‘global public health’.² For example, an otherwise excellent paper on non-communicable disease in developing countries, recently published in *The Lancet*, made no mention of occupational exposures; instead the emphasis was on lifestyle risks such as tobacco, salt and alcohol overuse and obesity.³

This book makes the case for why work-related illnesses and injuries are critical concerns for every country and every stage of economic development. The first section concentrates on broad approaches and frameworks, the second section addresses important hazards and the third section addresses specific industry sectors, management challenges and policies at the global level. The opening chapter identifies three ‘waves’ of occupational health: (i) the early period of occupational health ranging from the work of Ramazzini in Italy through to work by Thackrah and Pott in England during the spread of the industrial revolution; (ii) the growing use of developments in biomedicine, particularly microbiology and human cellular pathology, commencing about 100 years ago; and (iii) the authors (most of whom are Scandinavian) identify a third wave starting in the 1980s when Scandinavian scientists first considered the psychological and psychosocial aspects of work.

As noted above, this is generally an excellent text, and has a long list of distinguished authors. I do have, however, some comments on omissions and shortcomings.

First, although this is an excellent textbook of occupational health, I am not convinced that it is optimal as a textbook of global occupational health. Many of the examples, and most of the photos, relate to working conditions in low- and middle-income countries (LMICs). However, it is not so clear that the text has been sufficiently adapted to really address the

priorities for global occupational health, and many of the chapters read as if they were written for a textbook of occupational health in high-income countries, with minor adaptations and examples then being added.

Secondly, although the book does make a strong effort to mention occupational health problems in LMICs, it is perhaps a little too restrained in discussing how they got there. There is little discussion of the problem of hazardous industries moving to, or being established in, LMICs, or negative role of bodies such as the International Monetary Fund or the World Trade Organization in enforcing structural adjustment programmes and free trade agreements, many of which have adversely affected working conditions. More specifically, I would have liked to have seen more discussion of currently topical issues such as working conditions in Asian factories producing goods for Western corporations such as Nike and Apple.

Thirdly, most chapters are excellent, but some are in danger of becoming out of date relatively rapidly. For example, the chapter on occupational epidemiology presents a very ‘traditional’ view of case–control studies that are described as working ‘backward rather than forward’; there is little mention of modern developments in case–control theory, which show that the case–control studies are not an inherently inferior study design, but merely involve sampling from the denominator of the corresponding cohort study. This omission is strange, since these modern methods were partly developed as a result of nested case–control studies being conducted within occupational cohorts.

Fourthly, there are some topics that are obviously missing, or receive scant attention. For example, occupationally caused neurological disease is likely to become of major importance as hazardous industry moves to LMICs, and the global population ages, but these receive only a brief mention in the chapter on occupational diseases; more generally, this chapter may perhaps have merited a whole section of the book, rather than a single chapter. Also missing is the mention of modern research and diagnostic techniques (e.g. epigenetics) that are transforming modern medicine and health research in general, and are beginning to impact on occupational medicine and occupational health research.

However, the above comments mainly relate to omissions, rather than commissions. What is in the

book is generally very good; the problem is with what is missing. This means that while this will serve well as a textbook of occupational health, it may need to be supplemented from other sources in order to serve as a textbook of global occupational health.

Acknowledgements

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References

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Epidemiological Research: Terms and Concepts. *Miettinen, OS (ed).* Springer, 1st edn, 2011, pp. 175. €39.95, ISBN: 9789400711709.

Concepts and terms are the building blocks of our reasoning and communication, respectively, and are therefore crucial in epidemiology. Unfortunately, many epidemiologists today would agree that there is confusion about many concepts and terms within our discipline. Serious theoretical work on this issue, like the work presented in Dr Miettinen's latest book, *Epidemiological Research: Terms and Concepts*,¹ should therefore be very welcome. This book contains a selection of concepts and terms that he sees as crucial for epidemiological research; some of these concepts and terms are not yet familiar to all epidemiologists, nor are all of his definitions in line with received ideas, and it is partly for these reasons that the book is particularly interesting. This book is the condensation of many decennia of serious reflection and has the potential to advance considerably our understanding of the theoretical dimensions of epidemiology.

One of the striking features of the book is its unusual structure: the concepts and terms are grouped in chapters based on whether they pertain to medicine, science and statistics in Part I, or to epidemiological or clinical (meta-epidemiological) research in Part II. Consequently, looking up terms is not as straightforward as in traditionally formatted dictionaries or glossaries; instead, the use of the index is necessary if one wants to find a term. Alternative definitions of that term are then distributed in different chapters rather than being grouped together. For example, 'study' appears under both 'Terms and Concepts of Medicine' and 'Terms and Concepts of Science.' Miettinen's intention with this structure is

obviously didactical: to encourage users to make the proper distinctions between categories of concepts. Miettinen's highly laudable passion is to challenge epidemiologists to think and re-think. The chosen structure of the book constitutes such a challenge. It offers a unique and exciting opportunity for learning but may also seem a little daunting. The book is thus much more than just a dictionary. It is also an important book for studying and gaining deeper insight into the theory of epidemiology.

Indeed, studying definitions in this book and comparing them with those found in the International Epidemiology Association (IEA) dictionary² is a very interesting and instructive exercise. Some of the terms will be new for those unfamiliar with Miettinen's corpus, and it is helpful to have this book at hand when reading Miettinen's other works, such as his other recent book *Up from Clinical Epidemiology and EBM (Evidence Based Medicine)*^{3,4}. The definitions express and clarify Miettinen's particular views on science and epidemiological research. The definition of 'study' under the category of Terms and Concepts of Science is an example that illustrates this point. The definition starts with 'Study - A piece of research; that is, a project to produce evidence (for inductive judgments) about the abstract truth (unknown) at issue...' When reading this definition, one must keep in mind the category of concepts for this particular definition and Miettinen's framework of thinking to understand that, in this particular definition, 'study' only concerns the search for abstract scientific truths and excludes surveys, outbreak investigations or other particularistic investigations. To understand Miettinen's framework of thinking, it is sufficient usually to read the chapter introductions and accompanying annotations. These explain and clarify Miettinen's views of the chosen