

INTERNATIONAL HANDBOOK OF RESEARCH
IN MEDICAL EDUCATION

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Edited by Geoff R. Norman, Cees P.M. van der Vleuten and David I. Newble

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International Handbook of Research in Medical Education

Part One

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Introduction and Foreword

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The *International Handbook of Research in Medical Education* is a review of current research findings and contemporary issues in health sciences education. The orientation is toward research evidence as a basis for informing policy and practice in education. Although most of the research findings have accrued from the study of medical education, the handbook will be useful to teachers and researchers in all health professions and others concerned with professional education. The handbook comprises 33 chapters organized into six sections: Research Traditions, Learning, The Educational Continuum, Instructional Strategies, Assessment, and Implementing the Curriculum. The research orientation of the handbook will make the book an invaluable resource to researchers and scholars, and should help practitioners to identify research to place their educational decisions on a sound empirical footing.

THE FIELD OF RESEARCH IN MEDICAL EDUCATION

The discipline of medical education began in North America more than thirty years ago with the founding of the first office in medical education at Buffalo, New York, by George Miller in the early 1960s. Soon after, large offices were established in medical schools in Chicago (University of Illinois), Los Angeles (University of Southern California) and Lansing (Michigan State University). All these first generation offices mounted master's level programs in medical education, and many of their graduates went on to found offices at other schools.

Soon after, in the mid 1970s, there was a renewed focus on medical education in medical schools following the founding of the first schools based on Problem Based Learning (PBL), initially at McMaster University, Canada, then at University of Maastricht, Netherlands and University of Newcastle, Australia. This active interest

continues to the present day, and Problem Based Learning has moved out of medical education into other post-secondary professional programs and now into public school education.

Concurrent with this renewed interest in curriculum, the field of assessment has attracted considerable attention, and medical education researchers have made significant contributions to methods of student assessment, both within the professions and in education more broadly (Swanson, Norman & Case, 1994). Much of this activity was driven by the requirements of licensure and certification, and has been spearheaded by highly skilled researchers employed by bodies responsible for these activities such as the National Board of Medical Examiners and the American Board of Internal Medicine in the U.S., the Medical Council of Canada, the Royal College of General Practitioners in the U.K. The history of collaboration between academic researchers and licensing/certification bodies goes back at least three decades to the introduction of patient management problems in the National Board examinations (McGuire & Babbott, 1967) and Modified Essay Questions in the Royal College of General Practitioners examinations (Knox, 1980).

Curriculum and assessment issues, while major foci of effort in medical education, do not begin to exhaust the areas of research interest explored by researchers, as a perusal of the chapter titles will indicate. Research programs cover the whole gamut, from fundamental questions about perception and memory to studies of the outcomes of education reflected in health care practices such as prescribing habits.

WHY THE HANDBOOK?

Despite the fact that medical education research is a dynamic and productive field of scientific inquiry, the literature on medical education is not routinely applied to the solution of practical educational problems. The same clinicians who preach the use of evidence in clinical decision making and who contribute their research to clinical journals routinely base educational decisions on their own personal experience, and rarely consider that there might even be a body of literature which could inform these decisions (Van der Vleuten, Dolmans & Scherpbier, 2000). Of course the problem rests not only with educational practitioners; like all scientific communication, the literature is primarily intended for communication among researchers (Haynes, 1990) and remains relatively opaque and difficult for practitioners to access. Indeed there is growing concern among educational researchers about the disparity between the findings of the research and the practical decisions of the educators. *Best Evidence Medical Education*, an international collaboration among educational researchers and practitioners (Harden, Grant, Buckley & Hart, 1999), is dedicated to amassing resources to conduct systematic reviews of important educational questions.

However, this movement is still in its infancy, and considerable time will necessarily elapse before we see many of the products of its efforts. In any case, while systematic reviews have a legitimate place in informing educational policy, it is our belief that there remains an equally legitimate role for expert critical review, whether or not it was initiated by a comprehensive and explicit search of the literature.

That is what this handbook is all about. We were approached initially by Peter de Liefde and Joy Carp at Kluwer with the idea of such a book. We began our deliberations about three years ago, and gradually assembled a list of topics paired with a cast of international experts who agreed to work with us. Several factors made the project almost pleasurable. First, very few of those who we approached turned down our invitation; we can be confident that the authors represent the best in the field. Second, we had very few problems with deadlines. Of course, experience taught us that things take longer than they do, but our many doomsday scenarios of authors letting us down never materialized. We acknowledge an enormous debt to the authors, who gave so freely of their time and intellectual energy. Finally, we wish to acknowledge the heroic efforts of the staff at University of Maastricht, particularly Ms. Alexandra Stroosnijder, who managed to get all the pages from manuscript to camera-ready.

We hope that you learn as much from the reading of these chapters, as we did from our involvement in their writing.

The Editors

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Section 1: Research Traditions