What Is Behavioural Medicine? Commentary on Definition Proposed by Dekker, Stauder and Penedo

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Published online: 6 December 2016
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Abstract

Purpose Dekker et al. (2016) propose an updated definition of behavioural medicine.

Method In this commentary, we discuss how the field and the disciplines involved have changed over time before suggesting small amendments to the proposed definition.

Results We suggest that the range of medicine which might be considered ‘behavioural’ is increasing to encompass virtually all medical practice. In addition, the role of behaviour and the potential for behaviour change as a means of improving health have become increasingly important. A defining characteristic of behavioural medicine is the involvement of multiple disciplines, working together or in parallel and, as the extent of the field expands, more disciplines are likely to be involved.

Conclusion We therefore propose that the definition should represent the full width of the research, practice and disciplines involved in behavioural medicine.

Keywords Behavioural medicine · Definition · Disciplines · Behaviour change

Introduction

Dekker, Stauder and Penedo [1] propose an update of the definition and scope of behavioural medicine. Definitions of a field have value if they enable those within the field to identify with it, for example by attending its conferences and publishing its journals, and if those outside the field can recognise how it might be attractive or useful to them. In this response, we first discuss how the content and focus of behavioural medicine have been changing as a way of thinking about how the definition might change before commenting on their proposals.

All Medical Practice Is Behavioural: the Range of Medical Practice Recognised to Be ‘Behavioural’ Is Increasing

Leaving aside the basic biomedical and pharmacological sciences, one can argue that all aspects of the ‘practice of the diagnosis, treatment and prevention of disease’ [2] involve the behaviour of many clinical and other disciplines at all stages in the process as well as the behaviour of patients and the wider population in interacting with medicine and illness. Early behavioural medicine investigations mainly concentrated on developing biofeedback interventions for diverse conditions [3] or the effect of stressors (including the onset of illness and stress-related behaviours, notably type A behaviour) on emotional and physiological responses and to a very limited extent prediction of disease. The field has expanded to include behaviour in all clinical specialties, from immunology [4] to surgery [5] as well as behaviour in the domain of public health [6]. There has been increasing focus on the behaviour of those delivering healthcare with greater recognition that their behaviour may have important influences on health outcomes [7–9] and that delivering healthcare may influence the health outcomes of the professionals themselves [10].

The importance of avoiding ‘unhealthy medicine’ [11] by ensuring that evidence is implemented in practice and that we are not ‘all breakthrough, no follow through’, more work is being done on knowledge transfer into practice with journals such as Implementation Science (http://implementationscience.biomedcentral.com/) and Translational Behavioral Medicine.
representing these additional fields. In a systematic review of intervention frameworks, Michie et al. [12] noted the range of function and policies engaged in behavioural interventions and, by implication, that the range of relevant authorities goes well beyond medicine, including educational, fiscal, environmental and planning, whose behaviour influences health outcomes.

It is essential therefore that the definition and scope of behavioural medicine are inclusive with respect to the gamut of medical practice involved.

**There Is More ‘Behaviour’ in Behavioural Medicine**

Since the original definition, there has been an increasing focus on behaviour as a cause and consequence of health status, to complement the earlier emphasis on stress, emotions, beliefs, traits and mental health. The Decade of Behavior from 2000 to 2010 (http://www.asanet.org/footnotes/nov00/indextwo.html) was a response to the increasing recognition of the role of behaviour in addressing important societal challenges including health and has been accompanied by an upsurge in research and practice activity related to behaviour.

In the 1970s, behavioural medicine research and practice developed in two main domains: the first largely laboratory studies of the effects of stress and coping on physiological processes, and the second centred on psychosocial processes (roughly translated as the interaction between psychic and social factors) such as stress, emotions and personality along with socio-demographic and environmental factors investigated as determinants of health outcomes and, where modifiable, as opportunities for improving health in individuals and populations. Gradually, behaviour per se has become more important not only as a key mediator of the relationship between psychosocial processes and health but also as a direct cause of illness or good health and as a target for intervention at population, community and individual levels. Publications on ‘behaviour change’ have increased dramatically since the 1970s (see Fig. 1) and have become a priority for government policy and for clinical and public health services in many countries and are illustrated here by the UK Government advisory documents [13–15].

**How Have the Disciplines Changed?**

The 1970s and 1980s saw the increasing interest of the mental health disciplines in somatic health and the public health disciplines in psychological, behavioural and social influences on health. New sub-disciplines were emerging as were collaborative approaches across disciplines. In psychology, there was a debate about how to subdivide and label the field, exemplified in the UK by correspondence about the possible labels for the subdivisions of psychology, including medical, health, behavioural health, public health, clinical and clinical health.

In Fig. 2, we sketch the overlaps between the psychology sub-disciplines and the related disciplines that involve multiple disciplines. Similar diagrams could be drawn for each discipline involved in behavioural medicine. We suggest two main points. First is that there are no clear lines between disciplines and sub-disciplines but rather that they merge into each other. This seems entirely appropriate for scientific development and is a pattern repeated in other research fields. Nevertheless, it may create difficulties for employment in practical applications where posts are advertised by discipline, but not if they are defined by competences. Scottish Government developed a competency framework to ensure that behaviour change interventions could be delivered by

![Fig. 1 ‘Behaviour change’ citations in Google Scholar from 1970 to 2014](http://www.springer.com/medicine/journal/13142)
These aspects of the definition require no updating but the proposed expanded version is successful in making the extent of the field more transparent.

However, it is not clear why some elements of the definition have been lost e.g. why should ‘etiology’ be omitted when there continues to be investigation of etiology and not simply as prevention and health promotion. In listing the biobehavioural mechanisms, it is surely essential to include behavioural processes. Finally, we consider that it is important to fully represent the nature of the involvement of the many behavioural medicine disciplines.

We therefore propose these minor amendments (highlighted) to Dekker et al.’s proposal:

"Behavioral medicine can be defined as the field of research involving multiple disciplines concerned with the development and integration of biomedical and behavioral knowledge relevant to physical health and disease, and the application of this knowledge to etiology, prevention, health promotion, diagnosis, treatment, rehabilitation, and care. The scope of behavioral medicine extends from fundamental biobehavioral mechanisms (i.e. the interaction of biomedical processes with psychological, behavioral, social, societal, cultural and environmental processes), to behavioral processes in clinical diagnosis and intervention, and in public health."

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

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