

Editorial

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Health Psychology: Where are We and Where Do We Go From Here?

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ABSTRACT

Human behaviour plays a significant role in most of the leading causes of death. Psychological science has the potential to enhance health outcomes through a better understanding of health promoting and health damaging behaviours. Health psychology and the related field of behavioural medicine focus on the interplay among biological dispositions, behaviour, and social context. The field might advance by building better collaboration with other fields of medicine, sharing expertise on technical aspects of psychometric outcomes assessment, identifying behavioural interventions to reduce health disparities, and creating an infrastructure that fosters multidisciplinary research.

Key Words: Health Psychology; Behavioural Medicine; Biopsychosocial Model; Health Outcomes

Introduction

Psychological science can make important contributions to prevention and treatment of chronic illness (Taylor, 2006). To address the challenge, a new field of health psychology has evolved over the last 30 years. Health psychology is one of the most rapidly developing fields in contemporary academic psychology. It is now the sixth largest among 56 divisions of the American Psychological Association. The Divisions of Health Psychology of the British Psychological Society and the European Health Psychology Society are also thriving. In 2006, the Journal, *Health Psychology* [<http://www.apa.org/journals/heal>], had the largest number of individual subscriptions amongst any empirical psychology journal.

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Health psychology encompasses a variety of activities ranging from basic and clinical research, through education, and clinical service. The discipline focuses on the interface between biology, behaviour, and social context. A biopsychosocial model considers health as the complex interplay among biological disposition, behaviour, and social conditions (Fava & Sonino, 2008). Behaviours include lifestyle variables such as tobacco use, risk taking, alcohol consumption, diet, and exercise. Social conditions range from cultural influences, family context, and conditions of poverty. Biological studies consider a range of variables, but the most thoroughly investigated topic has been the effect of psychological stress on immune functioning. A unifying theme in health psychology is interest in the effects of these influences (Behaviours, social conditions, and psychological stress) upon health outcomes.

Health psychology significantly overlaps with the related field of behavioural medicine—defined as the study of the interactions of behaviour with biology and the environment, and the application of that knowledge to improve the health and well-being of individuals, families, communities, and populations. The most important distinction between the fields is that behavioural medicine defines itself as multidisciplinary, while health psychology is considered to be a subdiscipline of psychology. In practice, the fields are highly intertwined. For example, most members of the Society of Behavioural Medicine are also affiliated with the Division of Health Psychology of the American Psychological Association.

The Challenge

The strong body of research in health psychology and the allied field of behavioural medicine rarely finds its way into the clinical practice of medicine. The challenge for contemporary health psychology is to develop integration with clinical health care. Clearly, there is a need for this integration. The U.S. Centers for Disease Control estimates that nearly half of all adults suffer from one or more chronic diseases and that chronic disease care is responsible for an estimated 75% of health care spending (Centers for Disease Control and Prevention, 2008). There is substantial evidence that risks for heart disease, many cancers, chronic obstructive pulmonary disease, and stroke are at least partially the result of tobacco use, poor diet, or lack of physical activity (Mokdad, Marks, Stroup & Gerberding, 2004). Sexual behaviours, alcohol and drug abuse, and other habits place people at increased risk for many other serious health problems. Further, the full impact of many therapies for these conditions is often not realized because patients fail to use treatments as prescribed.

Contemporary practice guidelines often call for the use of behavioural counseling, but rarely offer guidance on how to apply the methods. In fact, the behavioural component is barely noted in some overviews (Boden, 2003).

The curricula of most medical schools have only minimal content relevant to behavioural science. Funding for prevention and behavioural research lags far behind basic biological research, and there is typically only minimal support for behaviourally oriented providers in most clinical settings.

In part, the failure to recognize the role of behaviour in health outcomes reflects the poor appreciation of underlying causes of death. Behavioural or psychological factors play an important role in each of the top 10 causes of death in most developed countries (Mokdad *et al.*, 2004). Tobacco smoking, for example, is a key risk factor for the top four causes of death: heart disease, cancer, stroke, and chronic obstructive pulmonary disease. Even if we understood the genetic basis for these conditions, it is almost inconceivable that the genetic information would allow us to disregard the need to reduce tobacco consumption.

In addition to behavioural factors playing a role in the development of chronic diseases, there is substantial evidence that modest behavioural intervention results in significant health benefits. Even moderate weight loss and physical activity can prevent diabetes for those at heightened risk. A systematic randomized clinical trial demonstrated that lifestyle changes were not only more effective but also more cost-effective than pharmacological intervention in the prevention of type 2 diabetes (Tuomilehto *et al.*, 2001). A series of behavioural, public policy, and communications strategies has resulted in a remarkable decline in the use of tobacco products (Messer *et al.*, 2007), and these reductions may have resulted in a decline in deaths from heart disease, lung cancer, and COPD. Applications of psychological and behavioural principles have had a profound impact on the epidemic of HIV disease; especially, there has been an impressive success regarding the transmission of HIV from mothers to their children. In the United States, HIV transmission rates have declined from more than 1500 per year to less than 50 (Office of Behavioural and Social Science Research, 2007).

Why So Little Attention?

When confronted with a choice between simple or complex solutions, we tend to favour the complex. Contemporary approaches to biomedical research glorify the role of genetics and molecular biology. In the United States, the vast majority of National Institutes of Health (NIH) dollars are devoted to technological interventions. Clearly, genetics and molecular biology hold the key to the understanding of many important diseases. However, simple behavioural technologies can have a profound impact at a relatively low cost. Part of the problem is that we think that behaviour change is easy to achieve. Patient advice or simple patient education rarely achieves its goal. For example, substantial benefits might arise from improved weight management. However, diet programmes tend to produce only short-term benefits (Mann *et al.*, 2007). The literature in health psychology clearly documents that behavioural change is complex and difficult to understand. More research is needed to learn how to improve these behavioural approaches.

What Needs to Be Done?

To realize the potential of modern behavioural science for enhancing the health of the population, we need to take several actions, including the following:

1. *Form better collaboration between health psychology and health care providers.* Academic psychologists are often removed from the clinical world. Sometimes they devote their energies to problems of little clinical importance. Clinicians may commonly encounter problems that would benefit from the systematic review of a sophisticated psychological investigator. For example, breast cancer management, particularly in the United States, has been very aggressive: most women receive adjuvant chemotherapy. Growing literature now indicates that adjuvant chemotherapy may be associated with losses in cognitive function. In particular, the use of adjuvant therapy results in problems with both working and long-term memory (Silverman, Castellon & Ganz, 2007) although there is still some controversy about the magnitude of the effects (Ahles *et al.*, 2008). Selective estrogen receptor modulators, such as tamoxifen, might also produce a problem with cognitive functioning (Vardy, Rourke & Tannock, 2007). Success in treating cancer has created some new challenges. With a growing number of potential survivors comes the need to investigate social, emotional, and cognitive effects of survivorship and cancer treatment (Ganz, 2008). Despite the importance of these issues, we have devoted surprisingly little attention to the study of cognitive and social outcomes in cancer survivors. Neither psychologists nor oncologists are trained to address these issues alone. Collaboration might significantly enlighten and open new pathways. Funding these specific collaborations or solicitation of interdisciplinary proposals may help advance these efforts.
2. *Apply psychological methodologies to assess patient outcomes.* Health outcomes are usually measured from the perspective of the provider. A growing trend emphasizes the importance of measuring health outcome from the perspective of the patient. Disease and disability are of concern because they affect life expectancy and/or life quality (Kaplan & Ries, 2008). For example, cancer and heart disease are the two major causes of premature death in the United States. In addition, disease or disability can make life less desirable. A person with heart disease may face restrictions in daily living activities and may be unable to work or participate in social activities. Even relatively minor diseases and disabilities affect quality of life. A cold, for example, may interfere with the ability to concentrate, work, or attend school. The cold, however, lasts only a short time. A chronic disease, such as arthritis, may affect the quality of life for a long time. Within the last few years, medical scientists have come to realize the importance of quality of life measurement. Many major diseases, including arthritis (Meenan, 1982), heart disease (Grady *et al.*, 2004), and diabetes, or even digestive problems (Gralnek, Hays, Kilbourne, Naliboff & Mayer, 2000), are evaluated in terms

of the degree to which they affect life quality and life expectancy (Asakawa, Rolfson, Senthilselvan, Feeny & Johnson, 2008). One of the important puzzles in current outcomes research is that, although women live longer than men in most developed countries, women experience poorer self-reported outcomes during the years they are alive (Kaplan, Anderson & Ake, 2001).

We need a greater emphasis on the development of methods that can capture these outcomes. Health psychology offers a rich tradition of measurement and can make valuable contributions to the assessment of patient-reported outcomes. Some of the most common measures are the Medical Outcomes Study 36 item Short Form (Ware & Gandek, 1998), the Quality of Well-being Scale (Kaplan & Anderson, 1996), and the Health Utilities Index (Feeny, Furlong, & Barr, 1998). Many people with advanced training in health psychology have expertise that can contribute to the development of these methods. Health psychologists are typically well-versed in statistics, psychometrics, and experimental design in addition to their substantive training.

3. *Move beyond documentation of disparities.* One of the most popular topics of contemporary outcomes research is the documentation of health disparities, including differences in outcomes between men and women. There are now literally hundreds of studies showing that those with more economic resources have better health outcomes than those with fewer economic opportunities. We have fewer studies demonstrating how to turn our knowledge of disparities into interventions that reduce the consequences of social disadvantage. We need greater efforts to help attenuate the known disparities associated with social and economic deprivation and gender. Health psychology and related fields have a rich history of the study of social and economic stressors and can make important contributions in this area (Cohen, Doyle & Baum, 2006; Cohen & Hamrick, 2003).
4. *Create an infrastructure that fosters multidisciplinary research.* We need to encourage more multidisciplinary research. There are plenty of advocates for multidisciplinary collaboration. However, there are many fewer examples of successful multidisciplinary achievement. One of the best examples of a successful collaboration is the work by Kielcolt-Glaser and Glaser that combines state-of-the-art psychosocial assessment with advanced methods from immunology. This collaboration has helped redefine the influence of psychological stress on immune functioning (Glaser & Kiecolt-Glaser, 2005). Part of the problem is rooted in the reward systems of universities. Better mechanisms must be developed to reward team science and true collaboration.

Concluding Remarks

The purpose of health care is to improve the health of the population. Although many components of health are determined by genetic factors and

environmental exposures, these interact with social and economic factors. Differences between genders in health outcomes might be affected by differences in health habits, social support systems, and in coping with stress. Health psychology offers an extensive literature and a set of validated methodologies that address many of these issues.

Take Home Message

In summary, health psychology and behavioural medicine have the potential to make important contributions to the health of populations. To realize this potential better, integration of medical science and medical practice is necessary.

Conflict of Interest

None declared.

Declaration

This editorial is original and has not previously been published or submitted for publication elsewhere.

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