
Occupation and Health: Are They One and the Same?

Ann A. Wilcock

Abstract

Addressing the question of what evidence there is for taking an occupational perspective of health, Wilcock argues that occupational science holds potential to improve the human condition and the environment by bringing together the diverse evidence being generated in many fields that address aspects of occupation and health. This possibility arises from the field's holistic nature, which encompasses the purpose and outcomes of humans' occupational nature, its interrelationship with health, and the outcomes of contemporary lifestyles. In supporting this vision, Wilcock cites evidence from history, health research, the directives of the World Health Organization, and occupational science itself.

Key Words

Evidence
History
Occupational science
World Health Organization

Dr. Ann Wilcock has authored five books, received a range of prestigious awards and lectureships internationally, and given keynote addresses in Australia, New Zealand, Canada, UK, Sweden, Portugal, Japan, Thailand, Hong Kong and the United States. The highlight of her career has been in developing occupational science as an international discipline. As well as introducing occupational science to Australasia, she founded the *Journal of Occupational Science*, convened the first Australasian Occupational Science Symposium and was elected as the Inaugural President of the International Society of Occupational Scientists.

Address for correspondence:
andwilco@ozemail.com.au

The theme of the Northampton Occupational Science Symposium relates to what evidence there is for taking an occupational perspective of health. For nearly 20 years, as an occupational scientist, public health researcher, occupational therapy educator and historian I have been exploring such evidence and have come to the conclusion that occupation and health are inseparable. However, it is easy to overlook inseparable phenomena. That may be part of the reason why the significance of an occupational perspective of health is currently frequently overlooked by medicine. Another might be medicine's increasing ability to reverse the physiological ill

effects of misuse of occupation. Yet, many diverse disciplines study aspects of occupation and there is growing evidence of a relationship between it and health. An important potential function of occupational science is a bringing together of the evidence.

This paper overviews what it is that occupational scientists need to explore in their concern about health, why they need to explore it, where evidence can be found and the various ways they can go about the task. But first, let me briefly reflect on my years as an occupational scientist with thoughts I sent to the first international think tank of occupational science leaders held in Australia in July 2006.

I wrote of the excitement of occupational science's nativity in Australasia: of my certainty that the science has the power to answer many of the vexed questions throughout the world if it could be adopted and developed by the range of disciplines that touch on parts of occupation. It was the latter thought that drove me to launch the *Journal of Occupational Science*. The concept of occupational science excited me because of its holistic nature. It brings together all aspects of what people need or are obliged to do to survive and experience health and well-being; what they feel about that; how it affects their development and growth; how it is the mechanism for belonging to societies and cultures; and how it is misunderstood because it has been fragmented into many parts, for study by many disciplines. I never envisaged that occupational science was restricted to informing occupational therapy, even though I had no doubt that it could, seeing it as so holistic that it could embrace and make sense of reductionism. Its importance, I felt, lay in its potential to challenge socio-political policies at the highest level to improve the physical, mental and social health of all people and achieve great change to the benefit of humankind. The basis for these strong beliefs is manifested in part by consideration of what needs to be explored, why it is important, and how it can be done.

What Occupational Scientists Need to Explore in their Concern about Health

Rather than leaping in at the deep end and tackling how occupation can be used as a therapeutic tool in the treatment of medically defined illness or disability, I believe it is necessary to go back to basics because we know so little about the phenomena. A lot more exploration is required of the inherent purpose and outcomes of the occupational nature of human beings, about its interrelationship with health, and about the

apparent health or illness outcomes of contemporary lifestyles from an occupational perspective.

I came to recognise that exploration, at least initially, needed to concentrate on a broad understanding of what such a science might embrace, and I was lucky to come across a wonderful book by Rene Dubos called the *Mirage of Health*.¹ This covered eons of time, crossed boundaries of culture and belief, and without directly referring to occupation explored its various facets in relation to health. This great work gave me a beginning insight into the elusive nature of health and the many ways it can be described. It also provided me with a broad way of considering how all the things that people do can be recognised as part of the human condition and relate to health or illness of a physical, mental, spiritual and social kind. This gave me a deep appreciation, unrecognised at the time, that 'natural' health and occupation may be one and the same.

Of course, that belief can become blurred in the face of modern, medically-based research that avoids the broader picture, and is refutable because different cultures do not share the concept of occupation as all the things that people do. In some cultures, it is unnecessary as ways of life simply reflect the need to engage in natural forms of survival, health and well-being. The lack of a common term across cultures requires greater investigation, and I feel heartened as I get to know Iwama's Kawa model in which the word occupation is contained in the term "flow of life" – or Kawa.² For me this confirms, afresh, the connectedness of occupation and health.

The evolutionary slant I took in the first edition of *An Occupational Perspective of Health* followed my reading of Dubos' work and the subsequent recognition that it could not be assumed that humans have always engaged in wide-ranging occupation.³ The evidence it presents comes from the inquiries of archaeologists, archaeological anthropologists and evolutionary scientists. As well, it comes from interpretation by epidemiologists and other medical scientists. McKeown, for example, argued that "in the limited sense" our hunter gather ancestors "were essentially free from many diseases that are now common...and...may be said to have been healthy."⁴ Possibly because of a shorter lifespan, few would have experienced the non-communicable diseases prevalent today such as heart disease, dementia, osteoarthritis, cancer or diabetes. Indeed, studies of recent hunter-gatherers have shown a virtual absence of those disorders, raised blood pressure or obesity. However, McMichael considered that "many of those diseases are an expression of a mismatch between human biological inheritance and current way of life" as "urban sedentariness, dietary excesses and various socialised addictive behaviours have become prominent features of modern human ecology."⁵ His deductions support my understanding that occupation, survival, health and illness are inextricably linked. As Gandevia maintained in his history of the relationship between occupation (mainly in terms of paid employment) and disease, "in the social environment of a man or a community occupation looms large."⁶

Such evidence, set within generally accepted scientific

theories of the evolution of the universe and the species that inhabit it, provides me with absolute assurance that, as a result of their biological evolution and enculturation, people are occupational beings.⁷ That is, the need to engage in occupation forms an integral part of innate biological systems aimed at survival and health, that the varying potential of individuals for different occupations is a result of their genetically inherited capacities, and that the expression and execution of occupation is learned and modified by the ecosystem and socio-cultural environments in which they live. From this assurance comes the confidence to provide a simple diagnosis and prescription that point the way to where more evidence should be sought—namely, that humans have not seriously considered the implications or requirements of their occupational nature; that this has caused deleterious effects to individual, community, population and ecological health; and that addressing this lack of awareness has the potential to result in major and beneficial changes to social, political, economic, ecological, and health policies and outcomes.⁷ Such exploration, although in its infancy, appears to be in line with initiatives formulated by the World Health Organization and its parent body the United Nations.

Why Explore Fundamental Issues in Concern about Health?

There is insufficient understanding of the fundamental relationship of occupation to health at a holistic level. Whilst other disciplines do important work on health and illness as an entity or on different and discrete aspects of occupation in relation to health and illness, without a holistic view of both occupation and health the evidence of any relationship is incomplete. Significant occupational determinants of early death, illness, health, and well-being can easily be overlooked or missed.

In addition to Dubos' work, three more pieces of writing shaped my explorations and ultimate belief in the interconnectedness of occupation and of health. The first of these was written by an occupational therapist, Geraldine Finn, who addressed the role of the profession in Prevention Programs.^{8,9} She proposed the development of a model of practice addressing the significance of occupation to human life. She argued that primary prevention is directed toward an understanding of the relationship between the basic structural elements of society and health, and what keeps people in a state of health. Therefore, occupational therapists should make their contribution with a greater understanding of occupation as a basic structural element of society and the effects of occupation on health.

I was also influenced by Ornstein and Sobel's thorough exploration of *The Healing Brain* in which they proposed "the major role of the brain is to mind the body and maintain health."¹⁰ Throughout their impressive text is ample evidence of the connectedness of people's 'doing', 'being' and 'becoming' with states of health. A third influential text was by Lyall Watson, a zoologist, who wrote *Neophilia: The Tradition of the New*.¹¹ From this work I began to appreciate more fully

people's constant striving towards the new: towards adaptation and development; towards trying to improve the human condition; towards becoming.

From an overarching exploration that flowed from such powerful insights, I eventually concluded that lack of understanding of the relationship of occupation to health at a fundamental level, alongside failure to act on the WHO vision of a trilogy of health as social as well as physical and mental, has had major repercussions in the global health scene. In that regard and reflecting the evidence that can be collected from media sources, I wrote in the second edition of *An Occupational Perspective of Health*:

I get angry almost every time I read, hear or watch the news. In every part of the globe, and increasingly, the consequences of occupational and social illness are reported. War, terrorism, rioting, ecological devastation, famine, homelessness, substance abuse, school absenteeism, unemployment, social welfare fraud, dependence on the state, an increase of food related disorders, family breakdown, suicide, aggression and abuse are commonly headline news. The modern world has got something very wrong despite pockets of affluence that appear to be the focus of post modern, economic rationalist governments. Ironically, the affluent too, are subject to many of these social illnesses.¹²

One of the causes of such illnesses is a lack of understanding of *occupation in a holistic sense*. Another is a lack of understanding of and action to decrease social illness despite World Health Organization attempts to bring this to the notice of governments, health practitioners and the population at large for close to three decades. Additionally I believe that the role of occupation in terms of social health, as well as physical and mental health is so poorly understood that it is largely ignored and inadequately resourced.

Where Evidence Can be Found

Evidence for health through occupation is everywhere. Evidence is all around us. It can be drawn from acute observation over time, from the results of repeated trial and error in everyday life, and from the reflections of great thinkers from earlier times. It can be found as hidden or central aspects of other disciplines, such as in medicine, psychology and sports science; in archaeology, sociology, human geography, history and ecology, for example. It is evident in divided form when addressed by health researchers as walking, cycling, exercise, work, play, recreation, food preparation, sleep, sexual activity, and so on. Much that is valuable can be ignored because of modern imperatives that research worthy of attention is that reported in the last 5 years, anything earlier is out of date, and that only findings of large randomised controlled trials can be taken seriously.

It is important that occupational scientists reflect on evidence from many sources and always bear in mind a holistic occupational perspective. I worry that like occupational

therapists, occupational scientists will fail to recognise significant evidence because of who carries it out or how it is labelled, or that they will look mainly to the research of others who hold a different or more limited orientation. It is occupational scientists' domain of concern to carry out research inclusive of the minute but from the perspective of the whole picture. I believe the health and well-being of millions can be improved if the job, and its interpretation, is carried out effectively.

Going on to consider where evidence can be found in history, in health research, in the directives of the World Health Organization, I suggest that these offer clues to the evidence that should be assembled into a meaningful whole by those describing themselves as occupational scientists. In the limited time available, I can only scratch the surface and as usual, I start with history.

Historical evidence

I have already given you some insights as to why I started my research by building upon the origins and development of human kind. As I asked questions of the past, my reward was glorious: an absolute assurance that survival and health are and always have been utterly dependent on what people do. Based on exploration of archaeology and evolutionary biology the evidence is clear that survival and health are intimately related to people's form, structure and capacities in relation to their environment. These are inherent in and responsible for the particular occupational nature and needs of all people. This assurance has made it possible for me to provide in the new edition of *An Occupational Perspective of Health*, my equivalent of Einstein's formula of the theory of relativity. Like his, my theory about the health relatedness of the occupational nature and needs of people is remarkably simple. It is that doing, being, becoming and belonging are essential to survival and health. Or $d+b^3=sh$.⁷ The introduction of the fourth element – belonging – might be surprising. It emerged strongly from my ongoing research into doing, being and becoming as the contextual element, of the connectedness of people to each other as they do and of the major place of relationships within health.

So what are a couple of the gems of evidence from history? First is an earlier recognition of the need to study people as occupational beings. John Locke 1632-1704, an English philosopher and a self-styled physician, propounded a view that only three sciences were necessary to explore, discover and understand the world as far as it was possible. In closest to current terms, these were the biological, occupational and communication sciences. All three are relevant here. Linking the three sciences provides a composite picture of what people do according to their physiology, biological inheritance, and environmental demand. The second of the three Locke called ethics (not occupation) and he argued:

it will become us, as rational Creatures, to employ our Faculties about what they are most adapted to, and follow the direction of Nature, where it seems to point us out the way. For 'tis rational to conclude, that our proper Employment lies in those Enquiries, and in that

sort of Knowledge, which is most suited to our natural Capacities, and carries in it our greatest interest.¹³

He anticipated 19th and early 20th century socialist reformers and philosophers in Europe who were influential in developing the ideas that provide a basis for the modern occupational therapy profession and have been influential in my delight in things historical. Thomas Southwood-Smith for example, in his 1836 *The Philosophy of Health*, explained that:

pleasure resulting from action of the organs is conducive to their complete development, and thereby to the increase of capacity for affording enjoyment; ... to the perpetuation of their action, and consequently to the maintenance of life; it follows not only that enjoyment is the end of life, but that it is the means by which life is prolonged.¹⁴

You may ask how is it that experts from these earlier times appear to espouse an occupational perspective of health that has largely disappeared. One major reason is that all adhered to the view of physiology and 'Rules for Health' set out by Hippocrates some 2000 years ago and promulgated in what was known as the Regimen Sanitatis. This provided six rules for health based on acute observation (a valuable and often ignored source of evidence) that informed the Western World for over two millennia. Now largely forgotten, their basic truth is being discovered afresh in contemporary research. The rules remained consistent throughout the centuries until they were forgotten in the excitement of germ theory and modern medicine. The six rules addressed:

- Air and environment
- Motion and rest
- Food and drink
- Sleep and waking
- Evacuation and repletion (including sex), and
- Affections of the soul (including joy, anger, fear and distress).¹⁵

Evidence from modern health research

Probably the most impressive is the 13-year randomised controlled trial undertaken by Glass and colleagues regarding the mortality of older Americans in relation to their activities. Perhaps not surprising to occupational scientists, they found that social and productive activities conferred benefits equal to exercise on the mortality of over 2,761 male and female older people they sampled.¹⁶

Another study of note is a survey by sociologist Mildred Blaxter who reported on how 9,000 people throughout the United Kingdom link health with their lifestyles. She found the complexity of the relationship make an easy answer unlikely, but that economic and environmental circumstances, social well-being and patterns of behaviour are all associated with health. Indeed she came to the conclusion that "socio-economic circumstances and the external environment – carry rather more weight, as determinants of health, than healthy or unhealthy behaviours."¹⁷ In her study, those surveyed volunteered reasons why people may be less healthy nowadays and, as well as answers about diet, substance abuse and exercise the reasons given included: stress and the pace of life,

general behaviour, poverty and poorer working conditions, unemployment and deterioration in family/community life.¹⁸

There are innumerable other studies that link both positive and negative health with people's doing, being and becoming. It is very important for occupational scientists to report negative health effects as well as the benefits of doing. Only then will we be taken seriously. To find such research it is necessary to look for studies concerned with aspects of occupation or activity. Running, walking and cycling for example are popular subjects, particularly with sports scientists. Many are cited in *An Occupational Perspective of Health* from reports in major medical journals as well as those specific to that field. Paid employment is another. Labour study, occupational health and safety, and psychology journals are a good source for those. Sleep and sex are popular subjects in many disciplines, whilst evidence of the value or otherwise of other forms of occupations can be found, even if not in highly regarded sources. Occupational scientists have to put all such evidence together to make sense of occupation and health.

Evidence using the research base of World Health Organization (WHO) strategies

I have found WHO to be an important source of occupation-based research (although not using that terminology). Indeed it has been heartening to find that the health promoting and well-being directions recognized within WHO policies over the last 30 years have, increasingly, espoused the importance of what people do, how they experience and feel about what they do, that doing should encompass potential and meaning as well as the prerequisites of survival, and that the interactive nature of doing and belonging can be health giving. Current WHO policy documents are based on the well-founded research of top scholars.

I recommend that occupational scientists regularly check the WHO website for papers that address the Organization's directives. The directives give clues as to what might be available and in themselves provide a reliable and reputable source on which to base explorations. A place to start is the 1977 World Health Assembly that recognized greater emphasis needed to be given to the effect of socially and economically productive factors as important aspects of health.¹⁹ This was affirmed by representatives of 134 nations in what became known as the *Declaration of Alma Ata*.²⁰

In 1986, the combined wisdom of 212 delegates from 38 countries was drawn upon at the first WHO Health Promotion Conference that was held in Ottawa.²¹ The subsequent Charter has provided the guiding wisdom for four further meetings in other parts of the world: in Adelaide (1988); in Sundsvall (1991); in Jakarta (1997) and Bangkok (2005). The Ottawa Charter for Health Promotion provides a listing of the prerequisites for health that includes peace, income, a stable eco-system, sustainable resources, social justice and equity, as well as shelter, education, and food.²¹ These and other directives that address such things as children's needs, active ageing, and concerns about activity and obesity provide background material for extensive occupational science research.

The WHO and others in the public health fraternity have recognized that policies to improve a population's social experience and environment could be more important than improving individual health using medicine.²² They welcome research about such topics as reducing inequalities in child development and education, improving the quality of life of older people,²³⁻²⁵ improving parenting, improving recreational opportunities, reducing consumption of fossil fuel by encouraging walking or cycling,²⁶⁻³¹ or persuading politicians to adopt innovative population-based policies.²²

What Have Occupational Scientists Been Exploring?

Early in the development of occupational science, Yerxa proposed that:

as a basic science it [occupational science] is free to pursue the widest and deepest questions concerning human beings as actors who adapt to the challenges of their environments via the use of skills and capacities organized or categorized as occupation. Thus the science is not constrained in its development by preconceptions of how its knowledge will be applied in occupational therapy clinical practice. This sort of freedom is essential in enabling the science to explore potentially fruitful lines of inquiry and to assure its perspectives will contribute not only to occupational therapy but to the mainstream of thought in society.³²

Overviews of the studies published in the *Journal of Occupational Science* show diverse interests along with a propensity for studies that are small scale, individually based, and have significance or relevance to the practice of current day occupational therapy such as disability, care-giving and ageing. Several have sought to explore the nature of occupation, occupational science and health. A few have explored occupation within more traditional economies, in terms of their economic and social significance, and how they can be used to challenge ideology and mobilise resistance to political and economic domination. More have used qualitative rather than quantitative approaches and a few have tackled the most vexed social health related questions of the day that I have alluded to in this paper. Time use methodologies including experience sampling are, arguably, the most established research techniques to explore important aspects of human occupation.

The notion of enhancing and promoting health has been a subject of a large number of articles. Several have addressed successful ageing with probably the most important to date being that by occupational scientists and therapists from the University of Southern California on the connection between occupation and well-being for older people living in community housing in Los Angeles.³³

In summarizing the various ways to go about the task, it needs to be recognised that evidence comes from many quarters as diverse as the popular media and the World Health Organization. Thought must be given to strategic grouping of

interests in potentially exciting research-focused centres so that small-scale studies can be used to build a picture and increase impact. Replication of appropriate randomised controlled trials from various parts of the world is essential, as well as smaller qualitative studies that could provide detail and future direction.

Conclusion

Occupational science is a very recent discipline, only formally created in the last decades of the 20th century, but with a much longer, largely unrecognised foundation. Partly because occupation is so all embracing and appears so mundane, its significance has failed to be appreciated sufficiently, particularly in terms of health. That is so even though contemporary WHO policy documents, using different terminology, strongly recognize the relationship, and despite many diverse disciplines studying parts of what human occupation encompasses. Such diverse study has reduced the holistic concept of occupation by dividing it and then made it more complex by endowing specific aspects with particular value. Occupational scientists must become strategic in their research, in what they choose to explore, and their choice of allies. It requires either or both a holistic vision and a building up of evidence to support it, or the development of knowledge and expertise in small areas of interest that may add to an holistic vision.

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