

Drawing on Wilcock: an investigation of the impact of her published work on occupational therapy practice and research

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Abstract

Ann Wilcock's published work identifies the fundamental importance of occupation in promoting health, wellbeing and even survival. Despite the implications for occupational therapy, the impact of her work has not been comprehensively explored. This research investigated how her ideas were used in published research from 1993-2007.

Mixed methods obtained two sets of data. Firstly, qualitative data from a textual analysis of Wilcock's published work were analysed and used to create a glossary and a conceptual framework of her ideas. Secondly, content analysis of 48 research papers yielded 121 citations which were coded into categories. The findings indicated that her ideas did not appear to be fully embraced by other authors and were sometimes applied superficially.

The conceptual framework was refined and finalised, to demonstrate how Wilcock's ideas are interrelated. It is presented as a means of developing an accessible occupational perspective for research and practice.

Introduction

Ann Allart Wilcock examined the relationship between occupation and health in depth, suggesting that existing knowledge has not been sufficient to explain the complexity of occupational engagement and its impact on human wellbeing. She argued that an occupational perspective improves understanding of health and wellbeing (Wilcock 2005a, 2005b) and developed theories in the field of occupational science, applying them to occupational therapy, health promotion and social justice (Wilcock 2006). Since her retirement in 2006, her scholarly work continues to influence occupational therapy. The research presented in this paper involved a detailed investigation of the impact and influence of her work on occupational therapy practice and research. A brief biographical background will be presented and an overview of Wilcock's writing discussed, to set the research in context.

Background

To understand the origins of Wilcock's work, some awareness of her professional life is helpful. Following a clinical career as an occupational therapist specialising in neurology, she worked for almost twenty years as an occupational scientist, public health researcher, occupational therapy educator and historian (Wilcock 2007). Her doctoral research used the history of ideas methodology to explore philosophical perspectives of occupation and informed her argument that the depth and strength of the relationship between occupation and health persists throughout history and is widely unappreciated (Wilcock 1998a, 1999a, 2006). Occupation makes survival and human health feasible, and therefore is essential for human existence. In a circular argument, she proposed that health is achieved when human physical, mental and social capacities are balanced through occupational engagement, which in turn depends on (and influences) levels of health (Wilcock 1993a, 1995, 1998a).

Her ensuing investigations developed this argument, defining occupation "to include all the things that people need, want, or have to do" (Wilcock 2001a, p 413) and proposing a model to explain the complexity of occupational engagement for individuals and societies (Wilcock 1998a, Royeen 2003,

Wilcock 2003d, 2006). This led to the suggestion that occupational therapists must be politically active to secure greater access to resources (Wilcock and Whiteford 2003e, Wilcock 2004b).

Wilcock's many publications reveal two perspectives: one being the focus on core concepts derived from her theories, and the other her specific ideas and recommendations for occupational therapy practice (e.g. Wilcock et al. 1997, Wilcock 1998a, Wilcock et al. 1998c, Whiteford and Wilcock 2001, Stacey et al. 2001, Wilcock 2003a, 2003d, 2003f, 2004b, 2005b, 2005c, 2006, Wilcock and Whiteford 2003e, Wilcock and Hocking 2004a, Townsend and Wilcock 2004b). In addition, the history of occupational therapy and the use of occupation as a therapeutic medium throughout history form two volumes, a major contribution commissioned by the British College of Occupational Therapists (Wilcock 2001e, 2002).

A number of authors have highlighted the need to systematically evaluate the evidence for Wilcock's theories and investigate how they have been used to inform research and practice (Fieldhouse 2000, Stacey et al. 2001, Lyons et al. 2002, Bryant et al. 2004, Whiteford 2005, Bergan-Gander and von Kurty 2006, Sakelariou and Algado 2006, Lee and Kirsh 2006, Pettican and Bryant 2007). This is of particular importance, since there is ongoing debate and critique about whether and how to develop an evidence base for practitioners, predicated on complex and often subjective experiences of wellbeing and engagement in occupations (Aldrich 2011, Atkinson 2011, Morley et al 2011).

To guide this investigation, therefore, the following research questions were posed:

- What are the core concepts of Wilcock's published work?
- To what extent and how are these concepts interpreted in published occupational therapy research?
- What are the implications for occupational therapy practice?

Method

The first author conducted the study using a document research method, with documents as data sources, which were analysed qualitatively and quantitatively (Bowling 2003). It was conducted in two stages, culminating in an overall consideration and discussion of data from both stages (De Poy and Gitlin 2005). In order to answer the research questions, “a multi method” (Morse 2003 p196) or “inter-method mixing” (Johnson and Turner 2003 p298) study design was used.

The initial qualitative stage of this study identified the core concepts of Wilcock’s theories, critically analysing her own published work using qualitative textual analysis. Secondly, citations of Wilcock’s theories by other researchers were subject to quantitative content analysis. The first stage was used as a basis for structuring analysis during the second stage (Bowling and Ebrahim 2005).

Search strategy

Multiple searches of online resources and printed material were rigorously undertaken, using Cumulative Index to Nursing and Allied Health Literature, Blackwell Synergy, Scopus, Embase and Pubmed. For the first stage of textual analysis, publications by Wilcock and co-authors were scrutinised to identify core concepts. Beginning with the first published theories (Wilcock 1993a), 25 articles were identified and included, from 1993 to June 2007, the date this study commenced. The first edition (1998a) of “An occupational perspective of health” was also incorporated, as were 7 book chapters (Wilcock 1998a, Wilcock 2003d, Wilcock and Whiteford 2003e, Wilcock 2003f, Wilcock and Hocking 2004a, Townsend and Wilcock 2004b, Wilcock 2005b, Wilcock 2005c).

For the second stage which investigated how occupational therapy researchers had used Wilcock’s ideas at the time of the study, articles published in English from January 2006 until June 2007 were sampled. Key words used combinations of *occupational therapy*, *occupational science* and *Ann Wilcock*. To be included, articles needed to have specified a quantitative, qualitative or mixed study design and cited Wilcock’s published work. From this process, 48 articles were identified which was

considered a reasonable sample at the time of writing and corresponded to the timescale of the study itself.

Stage One: Textual Analysis to identify core concepts in Wilcock's work

Textual analysis is about the text itself, not about the text's subject (Giarrusso et al 2001) and is concerned with the production of meanings within the text (Tonkiss 2004). The different components of Wilcock's work were examined to extract the core concepts. Each article or book chapter was read at least twice. Detailed notes were taken and discussed with the second author who also reviewed the outcomes of the textual analysis to maximise reliability.

Once the content was understood, a topic list of questions was developed and used to systematically code each document (Giarrusso et al 2001). This topic list asked:

- What were the author's major points?
- How were these major points connected to each other?
- How were these major points explained?

This resulted in a list of core concepts which were organized into a glossary and used to construct an original conceptual framework, linking Wilcock's ideas together (see table 1 and figure 1).

Stage Two: Content Analysis to investigate how core concepts are used

For this stage of the study, content analysis was understood as a quantitative method, analysing the presence and the frequency of specific terms or elements (Bowling 2003, Tonkiss 2004), since it was concerned with the impact and use of specific concepts as identified by the second research question.

The content analysis revealed the terms used by authors, which were grouped in tables according to their core meaning. Frequencies of these terms in the 48 articles were recorded, indicating which of Wilcock's core concepts were most used by authors. Content analysis software

(<http://www.concordancesoftware.co.uk>) was used initially to extract data from the selected research

articles, but because each article was searched for citations of Wilcock’s work, along with the core concepts, the first author also carried out the coding manually to maximise effectiveness. Some of the concepts that were used without specific reference to Wilcock were excluded from the analysis. To further ensure reliability and validity the second author regularly reviewed samples of coding decisions.

Findings

Stage One: A conceptual framework of Wilcock’s core concepts

The initial textual analysis of Wilcock’s published work revealed eighteen theoretical core concepts as listed in table 1:

Occupational brain
Occupational behaviour
Occupational nature
Occupational participation
Occupational choices
Occupational dysfunctions
The relationship between occupation, health and survival
The synthesis of doing, being and becoming
Occupational balance
Occupation, culture and independence
Occupational determinants
Occupational justice
Occupational injustice
Occupational marginalisation
Occupational risk factors

Occupational deprivation
Occupational alienation
Occupational imbalance

Table 1: Theoretical Core Concepts from Textual Analysis

The core concepts were examined separately and used to construct a working glossary. Following this, they were organised, analysed and refined into an original conceptual framework, to show how Wilcock’s ideas are inter-related (Figure 1).

Insert the framework here – make sure all the bits are showing (boxes tend to change format)

Figure 1: A conceptual framework illustrating the links between Wilcock’s ideas

The conceptual framework

This framework emerged from the textual analysis, organising and linking Wilcock’s ideas to inform the content analysis and consider the implications for occupational therapy research and practice. Her ideas developed in a complex, non-linear way, which can be confusing. This conceptual framework was designed to link her concepts as clearly as possible.

Wilcock (1995, 1998a) suggested that the brain should be a starting point because it coordinates and controls what people do. The brain is primarily oriented to occupational performance to survive, controlling different occupational behaviours. It is noteworthy that a decade later, neurobiological studies started to support this idea, for instance when it was revealed that the “area of the brain that is responsible for understanding behaviour can predict behaviour as well” (Iacoboni 2005, p1). Beyond the brain, a person’s occupational nature is expressed through available occupational choices and this determines to a large extent human participation in occupations.

The dynamic synthesis of doing, being and becoming is another way to express this notion of occupational participation (Wilcock 1998b). If a person's occupational nature is expressed through choices that stimulate and balance their capacities, then they might experience occupational balance, enhancing their health and wellbeing. This is because in Wilcock's view, "doing" is associated with survival (Wilcock 1993a). Not "doing" causes serious problems for an individual's health and wellbeing. There is some support for this view, for example different studies have reported that people diagnosed with a life-threatening illness such as cancer experienced loss of occupational choices as they became ill (Unruh et al. 2000, Lyons et al. 2002). This changed when they attended occupational therapy services that enhanced and promoted meaningful occupations, which also resulted in reported feelings of improved wellbeing.

Occupational justice enables and supports people to meet their occupational needs (Townsend and Wilcock 2004a, 2004b). In contrast, occupational injustice involves risk factors that can exacerbate occupational dysfunction: occupational marginalisation, occupational deprivation, occupational alienation and occupational imbalance (Townsend and Wilcock 2004a, 2004b). The pre-conditions for occupational justice and injustice are called occupational determinants, impacting on every element of the conceptual framework.

Stage Two: How these core concepts are used in research

48 research papers were scrutinised and from this, 121 citations of Wilcock and her co-authors were identified. Half the papers cited her work just once. The prevalence of citations across the remaining 24 papers varied: twice (nine papers), three times (five papers), 4-9 times (eight papers). The final two papers cited her work 11 and 14 times.

The citations were coded, resulting in 27 different terms and of these, 15 corresponded to the conceptual framework developed from the initial textual analysis. The frequency of the occurrence of these 15 matched core concepts is shown in table 2.

Wilcock's Core concepts	% Occurrence	Number of occurrences (n= 121 citations)
Occupation + health + well-being	23%	28
Doing + Being + Becoming	15%	18
Occupational Deprivation	7%	9
Occupational Imbalance	7%	9
Occupational Balance	7%	8
Occupational Justice	6%	7
Occupational Therapy+ Culture + Independence	4%	5
Occupational Injustice	3%	4
Occupational Participation	2%	3
Occupational Risk Factors	2%	2
Occupational Alienation	2%	2

Occupational Marginalization	1%	1
Occupational Nature	1%	1
Occupational Choices	1%	1
Occupational Behaviour	1%	1

Table 2: Percentages of Wilcock’s core concepts in common with those revealed in the textual analysis presented in decreasing frequency order

It is interesting to note that the 3 core concepts from the initial textual analysis that were not referred to were: occupational determinants; occupation brain and the relationship between occupation, health and survival.

The remaining 12 categories from the original 27 were not actual concepts but broader terms, such as time use; curriculum design; notions of holism and were therefore not included. These occurred in 11 of the 48 research papers, leaving 37 papers to be considered more closely.

Detailed Findings of Content Analysis

The remaining 37 papers revealed some interesting findings on closer examination. 17 (46%) referred to Wilcock’s core concepts only once. For example, Wilcock is referred to within the phrase “It is widely accepted that an active life is positively associated with better health” (Werngren-Elgstrom et al. 2006 p 208) which could be seen as a rather superficial citation of her work to support a broad statement.

Since Wilcock’s theories are constructed from a series of concepts that develop a network of complex non-linear interactions, it could be argued that her concepts have not been comprehensively interpreted when they are singled out in this way, however convincingly.

Furthermore, in 26 studies (70%), the authors used Wilcock’s concepts without any sign of analysis, did not connect them directly with their findings, or used their findings to support Wilcock’s ideas in a rather

superficial way. For example Haertl and Minato (2006) referred to Wilcock's theory regarding the link between occupation, health and well-being in the introduction using the following phrase: "In recent years, occupational therapy literature has embraced its emphasis on occupation in promoting health and wellness" (p 20). Furthermore, although, Holthe et al. (2007) stated that their "findings will be discussed in relation to the concept of occupational justice" (p104) they were used to examine and refine other occupational therapy ideas, which were hardly connected with Wilcock.

Similarly, Van Leit et al. (2006) suggested that their analysis revealed an instance of occupational injustice but went on to base their discussion on an outline constructed from relevant ideas expressed by Townsend, Whiteford and Galheigo (Townsend and Whiteford 2005, Galheigo 2005). Indeed, Townsend has worked extensively with Wilcock, jointly developing understandings of occupational justice (Townsend and Wilcock, 2004a, 2004b) but this was not acknowledged.

Conversely, in 3 studies (8%) Wilcock's ideas were used in more depth to support certain occupational therapy models (Gunnarson et al. 2006, Erlandsson and Eklund 2006, Gewurtz and Kirsh 2007) and were developed equally along with other occupational therapy theories. For example, in Gunnarsson et al. (2006) the notions of doing, being and becoming and their synthesis were used to support the application of the Tree Theme Method. In another study, Hakansson et al. (2006) gained deeper insight into their findings by further developing the notion of occupational balance.

In other studies Wilcock's ideas were used partially. Although Leufstradius et al (2006) discussed occupational balance, they did not indicate how their findings developed or supported Wilcock's ideas. In contrast, Heuchemer and Josephsson (2006) initially set the background of their study under the umbrella of an occupational view of health and followed a sequence of ideas proposed by Wilcock. They related the core elements of occupational imbalance and deprivation with drug addiction, but subsequently connected their findings to different theoretical ideas.

Of the 37 selected studies, only 3 (8%) acknowledged the interrelation of Wilcock's ideas, refining her descriptions with various concepts (Bergan-Gander and von Kurthy 2006, Sakellariou and Algano 2006, Lee Kirsh 2006). Occupational injustice was discussed in relation to human sexual orientation and sexuality in disability and the synthesis of doing, being and becoming was refined in relation to the human life transition following a divorce. Only the study by Bergan-Gander and von Kurthy (2006) used three core concepts together, emphasising the human biological need to engage in certain occupations.

Discussion

This study has provided an opportunity to understand Wilcock's concepts and scholarly work in a systematic way, with the two stages of the investigation enhancing each other in demonstrating how her concepts have been used in the literature. It appeared that most research studies did not fully embrace Wilcock's ideas. Frequently the researchers applied them in a rather superficial way without giving an indication of deeper insight. Her concepts were applied partially, singling out ideas in a simplified form or according them less significance alongside other theories. Few studies expanded their investigation to include non-traditional occupational therapy clients. None of the selected studies incorporated all the core concepts described by Wilcock, and most of them excluded essential neurobiological aspects related to occupation, with the exception of Bergan-Gander and von Kurthy (2006).

This could possibly be due to the complexity of her concepts and the way they interrelate. It could also be because of the difficulty in relating any theory to practice and the slow process of questioning and refining it in research. Thirdly, it could be that any "new" concepts need a spokesperson to promote them and keep them alive in the professional public eye. Now that Wilcock has retired from the public stage, even though she continues to publish her work, some of the impetus to influence practice and research might have diminished or be more confined to the academic arena. Hence the first stage of this study identified the core concepts and clarified how they interrelate. It is hoped this might enhance

their understanding by researchers and practitioners, by making them more accessible. The conceptual framework also offers a map for developing the occupational perspective which underpinned all Wilcock's ideas.

Implications for occupational therapy practice

One of the strategies for influencing occupational therapy is the development of conceptual models of practice that are accessible and useful. Each model is unique, and over time is transformed to explain and apply evidenced based solutions to specific problems (Forsyth 2005). The conceptual framework (figure 1) has been proposed as an accessible basis for research and practice.

For instance, occupational therapists could map a person's present biological needs, taking into consideration different human characteristics, like age, gender and sexual orientation. Occupational participation could also be recorded along with their wishes, thus identifying "becoming" needs. Further exploration could focus on the person's experience of imbalance within the dynamic synthesis of doing, being and becoming. From this it could be identified whether or not the person experiences occupational dysfunction and the therapist could then consider the influences, if any, of occupational injustices. Previous occupational participation could also be explored, outlining how the person's occupational nature has evolved to the present day and highlighting any major shifts or barriers. Then the therapist and the person are in a position to work collaboratively to identify how existing barriers could be overcome. This could be achieved by exploring health-promoting occupations according to biological and participation needs, aiming to work for equilibrium in the dynamic synthesis of doing, being and becoming. During this process, occupational determinants would become clearer and could be recognised and worked with.

Although this thinking is still at a speculative level, a deeper understanding of these core elements could potentially be gained through more focused research and learning, both of specific elements and the links between them, and applied to professional practice. Some practitioners have considered this

for their client groups, for example Cronin-Davis et al. (2004) proposed a framework for considering occupational risk factors in a forensic mental health setting. Additionally, there are policy documents that put forward an occupational perspective not included in this research study that are readily available and could be used to influence practice, for example the World Federation of Occupational Therapists' (WFOT) Minimum Standards for the Education of Occupational Therapists (WFOT 2002).

Although much research is driven by a need to highlight the effectiveness of occupational therapy for defined problems, knowing why particular approaches are effective is as important as any other consideration. Even though this study shows that the application of Wilcock's concepts appears to be either still in the early stages, or for whatever reasons not yet embedded in research and practice, it could nevertheless be argued that taking an occupational perspective might enhance analysis, interpretation and explanation, facilitating further development of the core concepts and deepening this important understanding. Indeed, more studies of this nature, for instance a meta-analysis to discover whether research overall is generating evidence for Wilcock's concepts or a closer look at practice reports to discover how occupational therapists are applying her ideas would go some way to achieve this.

Limitations

A limitation of this study was that more data could have been extracted during the content analysis. For example data regarding the subjects of the studies, their research methodology, and the number of studies that each journal had published could also have been collected and might have been interesting, but this was not one of the primary aims. Correlations between Wilcock's core elements and occupational therapy implementations could also have been identified with a different methodology although it would still have been difficult to ascertain the impact and legacy of her work on the profession via these means. Another limitation was that because this study was original, there were no

other relevant studies to support its findings. However, it is hoped that it will form the basis for further investigation, updating the findings with literature since 2006 and extending the methods used.

Conclusion

The absence of a consistent perception of concepts or operational paradigm for practice and research has endangered the future of other academic disciplines, like sociology and geography (Clark 2006). Wilcock's theories provide a comprehensive framework for an operational paradigm, which could promote practice and research and secure the future of occupational therapy and occupational science (Molineux 2004, Wilcock 2005a). Thus occupational therapists and occupational scientists must leave "the comfortable rut" (Wilcock 1998b, p253), and further investigate and enrich Wilcock's theories in order to promote occupation and restore the balance between occupation, health and survival.

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Figure 1 (to be inserted in the text on page 8)

