Chapter 1.10
Ageing, Learning, Technology, and Health Management

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ABSTRACT

The world's population is ageing rapidly. Ageing has an impact on all aspects of human life, including social, economic, cultural, and political. Understanding ageing is therefore an important issue for the 21st century. This chapter will consider the active ageing model. This model is based on optimising opportunities for health, participation, and security in order to enhance quality of life. There is a range of exciting options developing for personal health management, for and by the ageing population, that make use of computer technology, and these should support active ageing. Their use depends however on older people learning to use computer technology effectively. The ability to use such technology will allow them to access relevant health information, advice, and support independently from wherever they live. Such support should increase rapidly in the future. This chapter is a consideration of ageing and learning, ageing and use of computer technology, and personal health management using computers.

AGEING AND LEARNING[1]

Globally the population is ageing. Worldwide the proportion of people aged 60 and over is growing faster than any other age group. In 2025 there will be a total of 1.2 billion people over the age of 60 (World Health Organisation, WHO, 2002, p6). Mc-Fadden (2002) noted that this is now a portion of the life span never before experienced by so many people and that consequently we need new models of ageing to deal with this. The notion of active ageing has been proposed as one such model.

Active Ageing is a relatively recent global approach to older people achieving healthy, productive, safe and fulfilling lives. Active ageing is the 'process of optimising opportunities for health, participa-

tion and security in order to enhance quality of life as people age' (World Health Organisation, WHO, 2002, p.12). Active ageing reflects not only the continuation of physical activity in later life, but also the continued participation in social, economic, cultural, spiritual, and civic affairs. WHO challenged all countries to implement the concept of active ageing within the cultural and demographic realities of their populations. In Australia two studies have recently explored the concept of active ageing: the Australian Active Ageing survey (National Seniors Productive Ageing Centre, 2005) investigated the contributors to and meaning of active ageing for older adults; and research undertaken by the Department for Community Development, Government of Western Australia (2006) developed and implemented an Active Ageing Benchmark Indicators. Both studies conceptualised active ageing for older people in terms of being proactive in keeping healthy, being physically and mentally active, engaging in learning, living in safe environments, working, and actively participating in family and community life. In the USA older adults themselves defined successful ageing as multidimensional including physical, functional, psychological and social health (Phelan, Anderson, LaCroix & Larson, 2004). In Britain, Bowling & Iliffe (2006) found that a multi dimensional lay model of ageing predicted quality of life more powerfully than unidimensional models (e.g. biomedical, sociological).

Learning

Education and learning are assumed to be important factors in facilitating participation and allowing adults to enjoy a positive quality of life as they age (WHO, 2002, p16). Participation within the broader community is important purely for enjoyment and recreation, and also to allow older people to adapt to changes within the environment in areas such as technology, lifestyle, finances and health. The ability to solve problems and adapt to change are strong predictors of active ageing and longevity according to Smits et al, (1999), cited in WHO (2002: 26). Butler (2002) cites the MacArthur Study on Aging as confirming that engagement in meaningful activities contributes to good health, satisfaction with life, and longevity as well as reducing the costs of physical and emotional illness. It is clear that learning plays an important role in productive ageing (Ardelt, 2000; Dench & Regan: 2000, Glendenning, 1997; Withnall, 2000) and therefore it is important for us to understand more about the phenomenon of learning by older people.

Barriers to Learning

Research in learning by older adults is, unfortunately, dominated by identification of obstacles to to the process caused by mental and physical deterioration. For example Driscoll, Hamilton, Petropoulos, Yeo, Books, Baumgartner & Sutherland (2003) described the ageing hippocampus and its effects on learning and memory. They reported in addition that cognitive tests to assess information-processing speed, working memory capability and declarative learning, administered to adults aged 17 to 86 years old, found significant age-related decrements in all three constructs (Kirasic, Allen, Dodson, & Binder, 1996). Boulton- Lewis (1997) concluded from a review of the literature 'that most adults, as they age usually process less information and do it in a slower and less efficient manner'. However 'knowledge that has been already acquired, the ability to retrieve it, as well as visual and auditory sensory capabilities are maintained for the most part, into the sixties' at least. Unfortunately, an outcome of the focus on problem-oriented research on ageing has helped create an image of older people as `being over the hill, out of date, out of touch, frail, sick and in need of services and support' (Kerschner & Pegues, 1998).

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