Chapter 14
Sensory Impairments and Challenges in Ageing

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ABSTRACT

This chapter describes how sensory impairment is often regarded from a medical/disability point of view and its effects on mental health can be poorly recognized. Communication is a key issue for deaf and deaf-blind people and difficulties here underlie developmental, psychological and emotional problems and delay or prevent appropriate assessment and treatment. Sensory related issues are seen as medical problems and as disabilities. 95% of the information about the world around us comes from our sight and hearing. However, the main concerns of visual and hearing affected by the total or partial absence of sight and/or hearing are usually how to live, how to learn and how to communicate. Their difficulties are often as much to do with society’s attitudes towards them as with the direct effect of sensory impairment.

INTRODUCTION

The best way to keep something bad from happening is to see it ahead of time... and you can’t see it if you refuse to face the possibility.” William S. Burroughs

Ageing is the process of becoming older. Ageing can refer to single cells within an organism which have ceased dividing (cellular senescence) or to the population of a species (population ageing). In humans, ageing represents the accumulation of changes in a human being over time (Bowen, & Atwood 2004), encompassing physical, psychological, and social changes. Ageing is among the greatest known risk factors for most human diseases (Dillin, Gottschling, & Nyström 2014), of the roughly 150,000 people who die each day across the globe, about two thirds die from age-related causes. The causes of ageing are uncertain; current theories are assigned to the damage concept, whereby the accumulation of damage (such as DNA oxidation) may cause biological systems to fail, or to the programmed ageing concept,
whereby internal processes (such as DNA methylation) may cause ageing. Programmed ageing should not be confused with programmed cell death (apoptosis). Human behaviour is highly dependent on the reception and integration of information derived from sensory organs, such as the eye and ear, as well as from nerve endings in skin, muscle, joints, and internal organs. There is, however, no direct relation between the sensitivity of receptors and the adequacy of behaviour, because the usual level of stimulation is considerably greater than the minimum required for stimulation of the sense organs. In addition, an individual adapts to gradual impairments in one sensory organ by using information available from other sense organs. Modern technology has also provided glasses and hearing aids to compensate for reduced acuity in the sense organs.

Age can result in visual impairment, whereby non-verbal communication is reduced (Worrall, & Hickson, 2003) which can lead to isolation and possible depression. Macular degeneration causes vision loss and increases with age, affecting nearly 12% of those above the age of 80 (Mehta, 2015). This degeneration is caused by systemic changes in the circulation of waste products and by growth of abnormal vessels around the retina (Nussbaum, Thompson., & Robinson, 1989).

Ageing is a complex multifactorial process leading to loss of function and a very broad spectrum of diseases. Sensory impairment is often regarded from a medical/disability point of view and its effects on mental health can be poorly recognised. Communication is a key issue for deaf and deaf–blind people and difficulties here underlie developmental, psychological, and emotional problems and delay or prevent appropriate assessment and treatment. Sensory functions are the critical means by which individuals gain access to information and connect to their physical environment and the people around them. Unfortunately, many older people and their families, as well as the professionals who serve them, accept sensory loss as a “normal” part of the Ageing process. Furthermore, few are fully aware of the range of rehabilitation interventions available for older adults with sensory impairments. 95% of the information about the world around us comes from our sight and hearing. Sensory impairment is when one of the senses; sight, hearing, smell, touch, taste and spatial awareness, is no longer normal. Communication is the greatest challenge. A sighted and hearing person will explore their surroundings, a person with sensory impairments will need encouragement to explore and interact. Normal progress to language is hard and intensive education and support is needed throughout the person’s lifetime. Ageing has long been associated with decline in sensory function, a critical component of the health and quality of life of older people.

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