Chapter 7
Cognition in Ageing: Implications for Assessment and Intervention

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ABSTRACT

This chapter focuses on cognitive functions and impairment in the elderly; its implications in daily functioning with inputs on differences in the existing literature. The chapter further focuses on the diagnostic and assessment issues and intervention strategies. Ageing is an inevitable phase of life and encompasses changes in physical, psychological and social realms of an individual. Concern with the dwindling health and presence of any medical issues make the geriatric population prone to develop mental health conditions. Poor memory and reduced functional ability is one of the common complaints from older adults coming to psychiatric or neurology clinics. Cognitive functions have been well documented regarding their role in daily functioning of an individual. With growing age of the brain; while some cognitive functions do slow down; some of the functions do evolve better with experience. In this context, it is important to differentiate between normal age related cognitive changes and symptoms of any degenerative disease.

INTRODUCTION

Weakening of bodily and mental functions with age is an inevitable phase of human life. Advances in medicine have enhanced the life span of humans across the globe. As per United Nations World population ageing report (2015), the elderly population across the world is growing with steady acceleration; and by year 2030, the number of people aged 60 years or above is projected to reach 1.4 billion, a growth of 56 percent. And by 2050, the global population of older persons is projected to more than double its
size in 2015, reaching nearly 2.1 billion. It is imperative that with this enormous number of people, the ratio of those seeking medical attention will also be very high. As per an estimate, in year 2015, 46.8 million people across the world suffered from dementia and this number is projected to reach 131.5 million by year 2050 (ADI, 2015). The cumulative incidence of Alzheimer dementia has been estimated to rise from about 5% by age 70 to 50% by age 90, making it a very common disease (Hebert et al., 1995). Increasing longevity and demographic shifts in many societies will stress the health systems unless a cure for AD is found or at least any therapy that postpones the onset of the dementia by 5 to 10 years for the time being (Wimo, Jonsson & Winblad, 2006).

The chapter focuses on how cognition changes over age and whether all aged do have cognitive impairment. And if cognitive impairment does happen, what is its impact on daily functioning of the individual and the intervention strategies. Existing literature support that with age cognitive functions do get lowered, however this is not uniform. Cognitive ageing can be seen as decline in mental functions of an individual with increasing age. This decline in mental functions is more pronounced in fluid mental abilities (Deary et al., 2009) which include memory functions, processing speed, executive functions and reasoning. Compared to this, the crystallized mental capabilities like verbal abilities, general knowledge are less affected. While all mental functions are required for optimum functioning in daily life, the lowering of these functions brings down the fluency and independence in daily living. Attempts to classify cognitive decline dates back several decades, as Kral (1962) introduced the term ‘benign senescent forgetfulness’ to differentiate between normal memory function, pathological memory processes and mild form of memory loss. Well established longitudinal studies, like Schaie and Hofer (2001) suggested categories of aged people depending on type of cognitive deterioration they have and could be put as:

- Those who age normally,
- The super normal,
- Those who have mild cognitive impairment, and
- Those who develop dementia.

It is imperative from this type of classification that cognitive ageing is not uniform and some individuals can have healthy cognitive functions and function very independently till their death. However, the number of such super normals is comparatively much less than the more frequent group of normal ageing. The normal ageing group characteristically reach an asymptote in their 30’s or early 40’s, maintain a plateau until late 50’s or early 60’s followed by a modest decline on most abilities through the early 80’s (Schaie, 2008). From a clinical perspective, this becomes obvious that consultation with medical experts for complaints relating to cognitive ageing is proportional to the severity of the impairment. However, severity of symptoms itself may not warrant the person to seek medical assistance, and family members wait until severe medical conditions or behavioural problems.

**CHARACTERISTICS OF COGNITIVE AGEING**

The profile of people coming to clinics with complain related to cognitive ageing range from forgetfulness, repeating task already done or insisting on having done the task not done in actual, asking same