Short Review

Impediments in Healthy Ageing: A Short Review

Ramya Dwivedi
Associate Professor,
PG Psychology,
School of Sciences Jain (Deemed to be University),
Bangalore, Karnataka

Correspondence Address:
Dr Ramya Dwivedi
Associate Professor, PG Psychology,
School of Sciences Jain (Deemed to be University), Bangalore, Karnataka

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Abstract

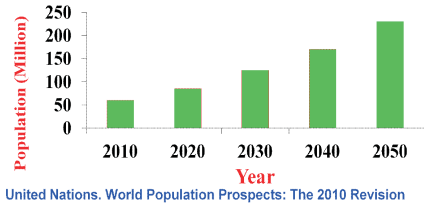
Background: Healthy and active ageing is one of the prime concerns of psychologists and other mental health professionals. Ageing process can be defined as a natural process leading to generalized disability of functions and failure of adaptive response to stress in the longer run. It makes the individual more prone for any age-related disease. Specificage-related changes like fatigue weak muscles are observed with considerable regularity across time and place because they are developmental. **Aim:**The objective of this article is to explore the complexities and challenges of healthy ageingwith a major focus on cognitive impairments and dysfunctions. **Methods:** All the review articles related to healthy ageing were reviewed in detail. Articles were identified through search engines such as PubMed, Embase, and PsychInfo databases. Peer-reviewed articles published during 2002 - 2021 were included for the review. **Results:** Ageing contributes to bring about a number of changes in different aspects of human life as in onesbehavior, attitude, intelligence, ability, physical capacity and maturity. Studies have reported that between 2015 and 2050, the proportion of the world's elderly population is estimated to almost double from about 12% to 22%. The report also states that there is an expected increase from 900 million to 2 billion people over the age of 60. Older people face special physical and mental health challenges which need to be recognized and attended. **Conclusion:** There are a number of risk factors that can challenge the active ageing process and lead to certain physical and psychological disabilities. Cognitive impairmentis one of the prime factorswhichaffects the functioning of brain by causing memory problems, attention and orientation deficits, language issues etc. These problems are quite common among the elderly and may lead to a number of neuropsychological changes.

Keywords: Healthy Ageing, Cognitive impairments, Challenges of old age, Memory, Neuropsychological changes

Introduction

Ageing care in India has been a prime concern for most of the gerontologists. Increased life expectancy rates in the elderly population can be contributed to the improved medical and health care amenities. With the rise in elderly population, demand for holistic concern and

Table I:
Showing the growth of population aged 65 years and above in India (Reference- United Nations World Population Prospects: The 2010 Revision)



United Nations. World Population Prospects: The 2010 Revision

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services also tend to grow. The geriatric survey projects that the proportion of Indians aged 60 years and older will rise from 7.5% in 2010 to 11.1% in 2025. The number of the elderly population in India is expected to reach 158.7 million in 2025, which in 2010 was somewhere around 91.6 million. The demographic profiles of elderly as reflected in the table I also observes an impressive gain in terms of the life expectancy ratio.

For any developing country to progress, geriatric population accounts for a burden on the national resource (WHO,2002). The population needs both medical as well as social and psychological attention. Old age is also a vulnerable age for physical as well as cognitive deficiencies. Cognitive deficiencies lead to a number of severe forms of degenerative disorders like Alzheimer's disease dementia and Parkinson's disease that may further affect their neurological as well as psychological functioning. A number of psycho- social reasons can be attributed for such dysfunctions. To quote a few would be socio-economic status, cultural norms, stress and its copingstrategy, dietary patterns social support, level of education, physical activity etc. Hence it is a task requiring great strength for the policy maker to come up with the factors emerging as critical biomarkers against healthy and successful ageing.

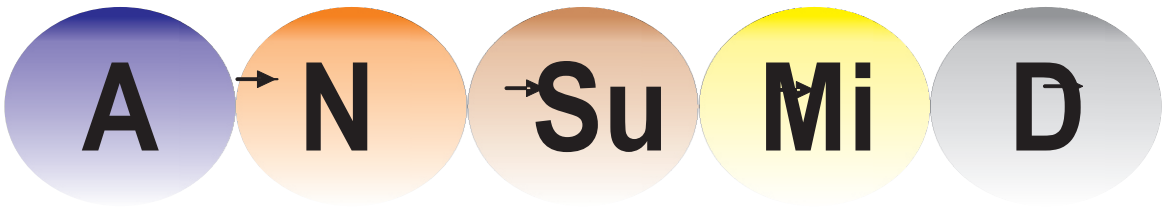
Cognitive ability and Ageing

Ageing can lead to a number of changes in the various domains. Memory functioning alters with a change in crystallized intelligence which is defined as the knowledge about the world and fluid intelligence which is a basic cognitive ability necessary to evaluate and analyze information about a problem or a decisionThere can be individual differences operating upon the variations in cognitive ability. The difference gets reflected under two different notions. It either gets reflected with the difference in prior cognitive ability or with the difference in degree to which change has taken place. Literature reviews, however states that there are some areas that are more prone to general decline than the more specific ones. General ageing decline is characterized with impairments in some aspects of memory, executive functions, processing speed and reasoning and slower information processing speed. Cognitive abilities tend to decline with age. However as mentioned earlier, it is important to understand that some of this decline is normal with the ageing process while some decline might reflect atypical changes in the brain. The same is highlighted in the table below. It depicts the different range of impairments that can be experienced by someone progressing towards cognitive dementia or MCI. Asymptomatic AD would highlight pathological changes in the brain of cognitively normal older adults. People with such symptoms might come up to a clinician with some subjective memory complains that does not detect the presence of Alzheimer's or other forms of dementia.

Role of lifestyle factors on cognitive functioning

A number of reasons have been attributed towards the impaired cognitive functioning among individuals. Diverse factors play a role in either

Table II:
Showing the spectrum of cognitive impairment



preventing or promoting the progression of cognitive impairment. Few of these factors have been elucidated below. Research findings suggest the role of diets in predicting the onset of cognitive decline. Current researches focus on the role of specific dietary elements and patterns that may help to delay this onset. Diets rich in Vitamin B, antioxidant and Omega 3 fatty acids are essential for maintaining normal brain function of the memory (Parrot and Greenwood,2007). Mediterranean diet is also found to have a significant effect in delaying cognitive decline. Mediterranean diet is a diet rich in vegetables, legumes, fruits, nuts cereals fish and moderate amount of alcohol (particularly red wine) and should be low in meat and dairy products. Diets that add on the risk for cognitive decline are the ones rich in refined sugar, cholesterol and trans-fat(Ordovas,2008).

Apart from the dietary make up, other factors that may lead to challenges and complexities in healthy ageing can be the other lifestyle factors like physical activity, exercise and cognitive reserve etc. The well-known 'cognitive reserve' hypothesis states that individuals who are more cognitively active or engaged with constructive activities subsequently would have lesser probability to delay the onset of cognitive impairment(Whalley et.al, 2004, Foresight Mental Capital and Wellbeing Project,2008).

Elderly in our country are the most vulnerable to develop psychological issues. One reason can be the lack of social security system. The urban elderly still have an option of hiring domestic help to assist them with their activity of daily livings. But this has led to an increase in social isolation and loneliness. By the time an elderly reaches their vulnerable age, their sons and daughters are already married and busy with their own family which narrows down their immediate family circle. An addition to this social aspect is the loss of a spouse that tends to count on the factors making the individual more vulnerable against active ageing. In the same regard, financial dependence also stands to be one of the prime factors affecting the psychological health and functioning. With regard to the financial support, pensions and social security services is only limited to the people working in public sector. The elderly population of rural area is less vulnerable to aging issues as compared to the urban inhabitants due to the presence of joint family system. Research studies have found that according to the gender census survey, major proportion of elderly women were poorer and have also recorded the highest negative affective psychological conditions. They were also recorded with least health insurance coverage and recorded the lowest consumption expenditure (Hiremath,2016). In a study it was reported that 47% of the elderly felt unhappy and 36.2% reported as they were a liability into the family. The research further reported that half of the respondents felt neglected and sad and reported of experiencing an indifferent approach towards them (Lena et.al,2009).

Active and engaged lifestyles are also considered beneficial for cognitive ageing. Brains that are actively involved in cognitively stimulating activity tend to protect individuals against cognitive decline. Education also has interplay with cognitive functioning. People who have formal education and belong to higher social class are associated with less cognitive decline (Ian et.al, 2009, Mane,2016). The significant changes in cognition with normal aging processes are decline in cognitive task performance that requires an individual to transform information to take a decision including processing speed working memoryand executive functions (Daniel, 2015).

A study by Tripathi &Tiwari (2011) reports that 51.7% of the normally aging population has mild level of objective dysfunction in orientation followed by 22.5% having problem with concentration.

Conclusion

Diets rich in Omega-3 fatty acids, vitamin B-12 and B-6 have shown to be a protective factor against cognitive decline. Similarly the role of cognitively stimulating activity also plays an active role in

building cognitive reserves against cognitive decay. Researches have also studied the role of education in predicting sound cognitive health. Advanced level of educational attainment works as a protective factor against any kind of cognitive decline. Last but not the least; social support has emerged as the most significant predictor of physical as well as psychological health in relation to stress. Individuals exposed to adequate levels of social support are less prone to stress inducing situations and are better at building and using coping strategies.

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