



AGEING AND HEALTH ACUMEN AMONG SELECTED SENIOR CITIZEN

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Abstract: Ageing, the gradual but continuing process of natural change, begins in early adulthood. At the biological level, ageing results from the impact of a variety of cellular damage over time, leading to a gradual decrease in physical and mental capacity and a growing risk of disease; though these changes are only loosely associated with a person's age in years.

This study is an analysis in order to understand the issues and concerns associated with advanced ageing among selected senior citizen. Purposefully identified 100 elderly persons categorized into 'Young-Old', 'Middle-Old' and 'Old-Old' age groups from three prominent districts viz. Ernakulam, Thrissur and Kottayam districts of Kerala, India were subjected to in depth interviews based on the objectives set.

Visual and auditory problems occurred in all age groups, but other sensory organ problems were minimal. Lifestyle-related diseases are common to all age groups, and issues with heart, blood pressure, arthritis, and insomnia have also occurred to varying degrees. The rapid increase in memory loss and immobility was also a concern for some, but the prevalence of mineral and vitamin deficiencies was negligible.

The subjects rated their health and except the 'Old-old' other two categories were satisfied with their present health conditions. The data was not supportive of the self-perception of the health by the elderly, revealing that except in a few areas, most of the physical and biological issues of the selected elderly increased with advancing age. It was considered essential to create an awareness among the elderly and their caregivers regarding health and nutritional requirements and its management strategies.

Index Terms – Advanced Ageing, Health and Associated Issues of Ageing, Health acumen

1. INTRODUCTION

'To Age' means to grow old or older; and ageing is a process of becoming older and is a gradual, continuing process of natural change in the body that begins in early adulthood. People do not become old or elderly at any specific age. Traditionally, age 60 has been designated as the beginning of old age (Richard G. Stefanacci, 2018).

Ageing is a process that begins at maturity and ends with death. By definition individuals above the age of 60 are elderly, but individual organs age at different rates and any specific organ does not age at the same rate in different individuals. Consequently individuals of the same chronological age may have vastly different physiological ages, which is a measure of functional capacity. An individual's ageing process will be determined by a combination of his genetic makeup and environmental factors. "Effects and Rates of Aging" (2011)

Ageing comes with many challenges. The loss of independence is one potential part of the process, as is the diminished physical ability and associated age discrimination that the society imparts. The term 'senescence' refers to the ageing process, including biological, emotional, intellectual, social, and spiritual changes. The likelihood of developing a health problem increases as people age, and it is (these) health problems that are the primary cause of functional loss during old age and because chronological age helps predict many health problems, it has some legal and financial implications. (William Little, 2016)

Ageing can be defined in terms of the probability of acquiring a particular characteristic of later life. Universal ageing features are those that all older people share to some extent (e.g. wrinkled skin), while probabilistic ageing features are likely but not universal (e.g. arthritis). These terms may be contrasted with similar concepts of primary ageing (age changes to the body) and secondary ageing (changes that occur with greater frequency, but are not a necessary accompaniment). Some commentators add a third term - tertiary ageing -to refer to the rapid and marked physical deterioration immediately prior to death. (Ian Stuart-Hamilton, 2014, p. 18)

Winnie Kuria (2012) found that though most studies stressed on the fact that the elderly found it difficult to engage in everyday tasks because of their health status; their study result disproved it showing that many elderly who managed to participate in active roles were healthier more than those that disengaged themselves. Mental health disabilities in the elderly such as stress, depression,

Alzheimer's disease and dementia keep rising among the elderly. Use of social intervention was proven successful in coping with mental disabilities. In most cases, when the elderly face serious decline in vision loss and heart complications, they are highly disturbed about their health condition and may affect their mental ability. Managing underlying problems that are responsible for the mental disabilities have direct positive effects on mental disability.

Physiological changes leading to health related issues: Ageing process involves changes in physiological, social and psychological condition of a person. The physiological changes which inevitably accompany ageing result in degenerative processes and lower functional capacity. These, in turn, influence the nutritional status of old people. These include decrease in BMR, alterations in gastro-intestinal tract, loss of teeth, demineralisation of bone, reduced muscle tone and changes in sense organs such as vision, hearing, taste, smell and touch. Even an insignificant sensory change can rob us of many simple pleasures and complicate the tasks of daily living. It may mean reduced mobility, increased dependence on others, inaccurate perception of the environment, reduced ability to communicate and socialize, or loss of self-esteem (Regula H. Robnett, 2010).

Ageing represents a convergence of declining cardio protective systems and increasing illness processes that's fertile ground for the event of coronary failure occurring within the section of the population over the age seventy. (Lakkatta EG, Levy D, 2003).

Krasucki C, (1998) comments that though psychological issues and disorders are common in old age, it frequently remain undetected and untreated. Geriatric patients are characterized by suffering from multiple diseases, being acutely at risk in the case of somatic disorders, for instance to lose functional autonomy. He quotes Linden M, Horgas AL (1997) who mentioned that old patients have a great need for both rehabilitation and for psycho-social services.

Schulz R, Eden J, (2016) in their study stress that family caregiving is more intensive, complex, and has long lasting effect on elderly than in the past and caregivers rarely receive adequate preparation for their role. Caregivers should have access to high-quality, evidence-based interventions designed to mitigate or prevent adverse health effects.

AIM AND OBJECTIVES

- To find out the health and associated issues of advanced ageing among selected elderly.
- To find out the physical issues of the elderly
- To understand the psychological problems of the elderly,
- Compare the health issues of selected 'Young Old', 'Middle Old' And 'Old - Old'.

2. MATERIALS AND METHODS

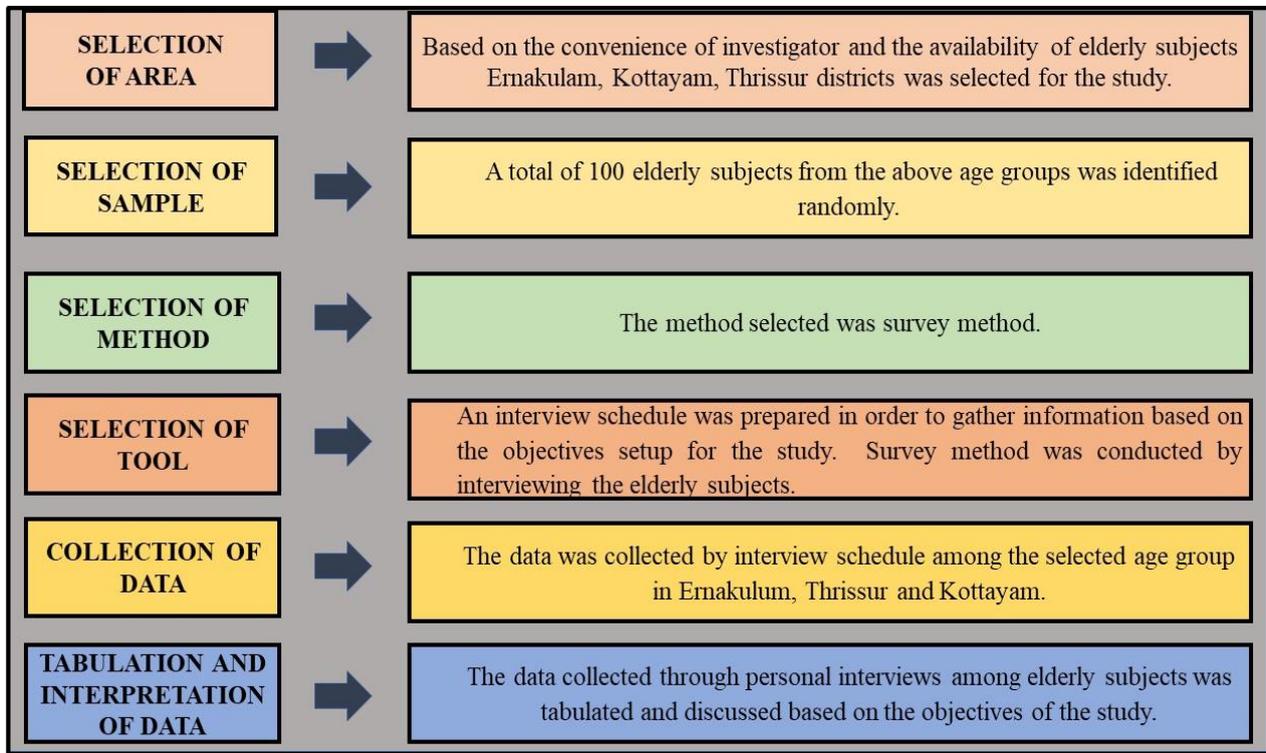


Fig. 1: Methods and Materials of the study.

3. FINDINGS AND DISCUSSION

a. PHYSICAL ISSUES PERTAINING TO SENSE ORGANS

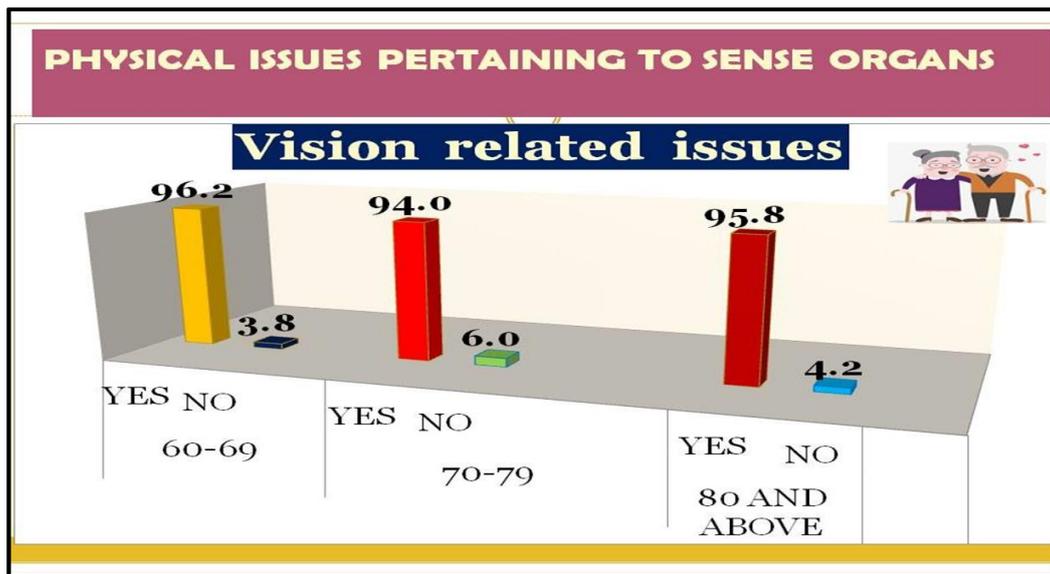


Fig 2: Vision related issues among the selected elderly.

The vision issues were present almost equally among the three age groups. Vision related issue most commonly mentioned was cataract. The treatment done for the cure of the cataract issue was cataract surgery, and most of the subjects have normal vision now. A few were using eye drops for dryness of the cornea.

b. HEARING RELATED ISSUES

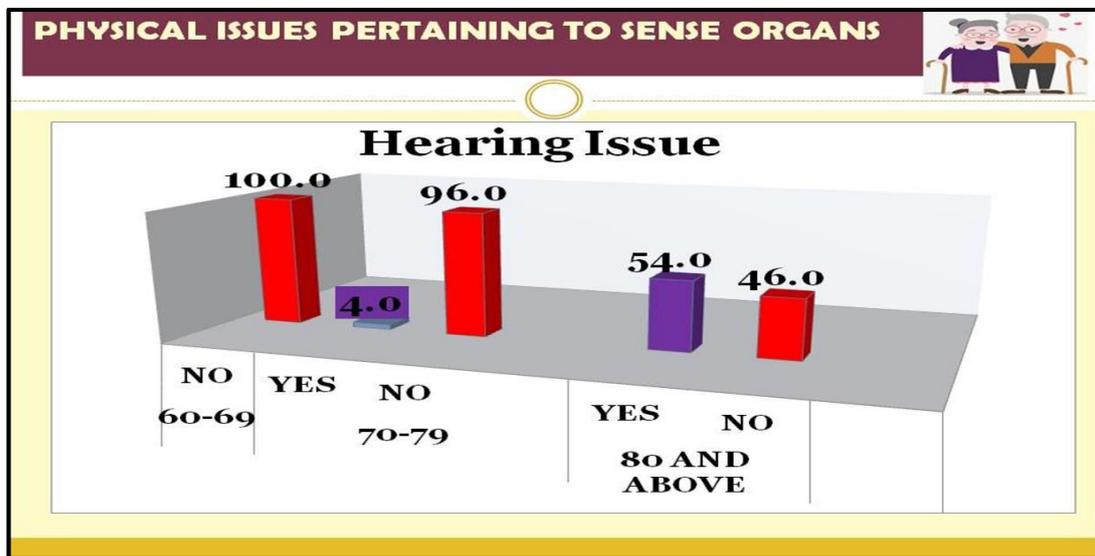


Fig 3: Hearing Related Issues among the selected elderly.

Hearing issues were mainly seen in old age. Among the elderly subjects selected for the study, this problem was mainly mentioned by almost half of (54%) the ‘Old old’. The hearing issues in the other two age ranges were negligible. The main ear problem seen was hearing loss, and a few had issues related to ear wax. No specific treatment was done to cure the issues other than the application of ear drops. Since this is the perception it may be different actually.

c. PREVALENCE OF LIFESTYLE DISEASES

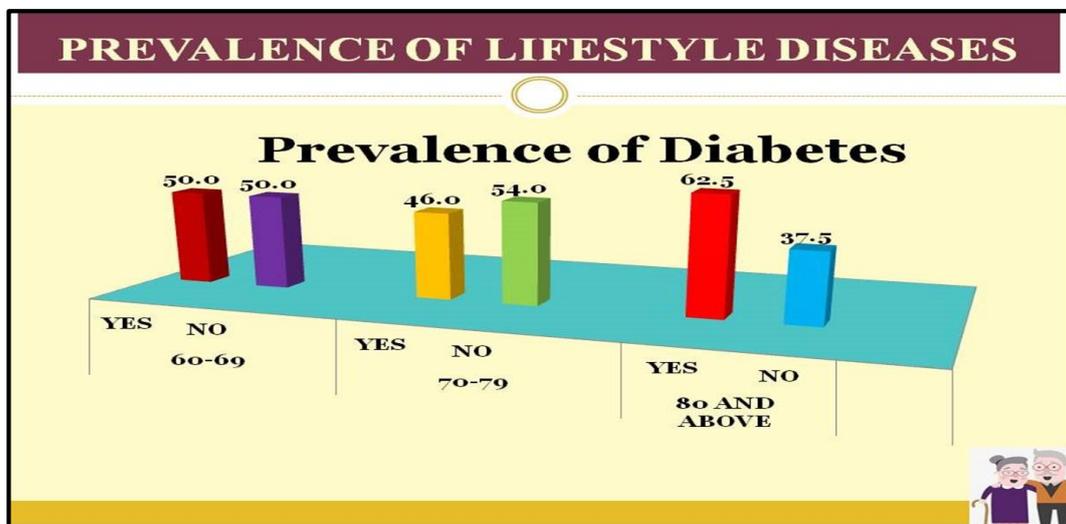


Fig 4 : Prevalence of Diabetes among the selected elderly.

Exactly half (50%) of the ‘Young Old’ were Diabetic and nearly half (46%) of ‘Middle Old’ and slightly more than half (62.5%) of the Old - Old group were diagnosed as diabetic. The data is very much representative of the current scenario, which places Diabetes as a Lifestyle disease among well-to-do people and the elderly are more aware of it, especially in Kerala due to medical advancements.

d. PREVALENCE OF ARTHRITIS

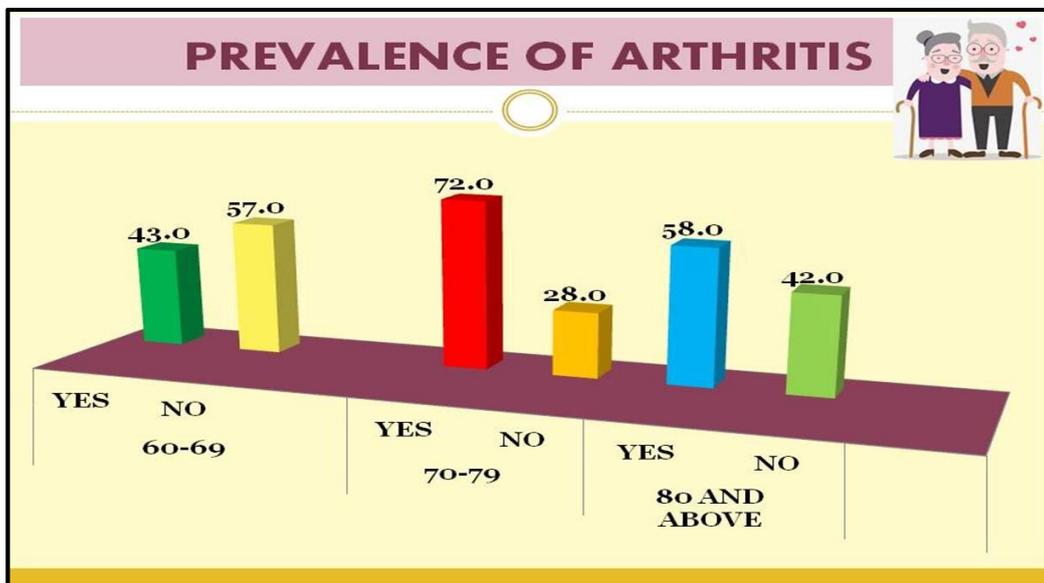


Fig 5: Prevalence of Arthritis among the selected elderly.

Arthritis was mentioned as present in all the groups with 43% of the Young -Old, 72% of Middle -Old and 58% of the Old -Old suffering from the disease. It is mostly identified with difficulty to move and carryout physical activities.

e. STATUS OF MAJOR VITAMINS AND MINERALS

Micro-nutrient deficiencies contribute towards many age-related disorders. One group at particular risk of micro-nutrient deficiencies is the elderly. Many elderly, such as the frail and those living in institutions, rely on ready meals often poor, nutritional quality for a significant part of their daily nutritional needs. A lack of awareness on the importance of micro-nutrients for health leads to poor nutrition among the elderly. Hoffman R. (2017)

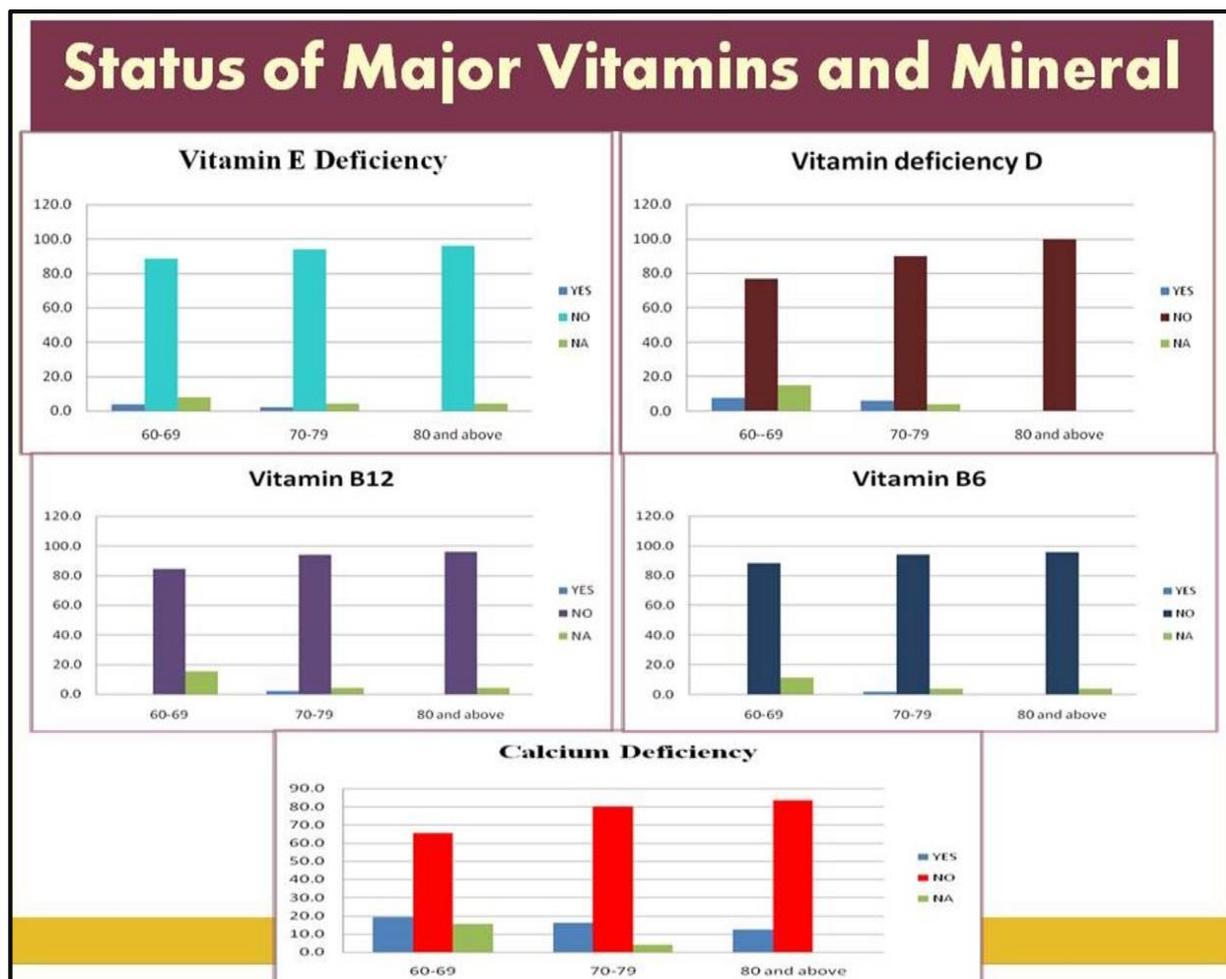


Fig 6: Status of major Vitamins and Minerals deficiency among the selected elderly.

The table reveals that most of the elderly from all three age groups selected for the study considers them as not having any nutritional deficiency. A few subjects from all the groups were not at all aware of the deficiency and even the possibility of this situation.

An increased awareness creation for the elderly is considered as an urgent need as most elderly respondents think they have proper food intake and hence they get enough nutrients whereas assimilation could decrease in old age. It was a good sign that most of the elderly were aware of the deficiency of calcium, which was very crucial for the health of Bones. It was found that the prevalence of mineral and vitamin deficiencies as identified were negligible, except for calcium deficiency slightly higher in the range of 12% to 19% of the subjects. This again may vary in actual due to lack of awareness.

HEALTH STATUS BASED ON PSYCHOLOGICAL ISSUES

Many elderly worry about becoming forgetful. They think forgetfulness is the first sign of Alzheimer's disease. But not all people with memory problems have Alzheimer's. Other causes for memory issues can include ageing, medical conditions, emotional issues, mild cognitive impairment, or another type of dementia.

f. AGE RELATED CONCERNS LEADING TO PSYCHOLOGICAL ISSUES

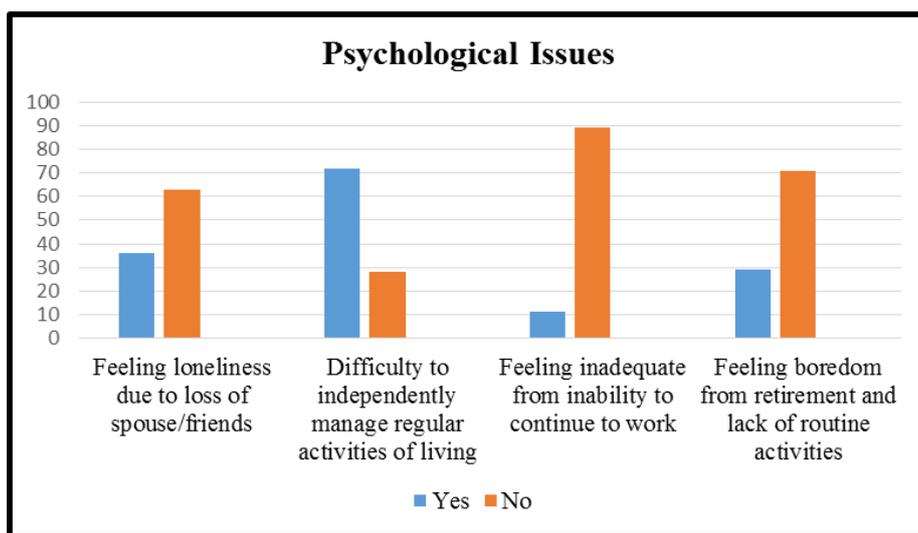


Fig 7: Major Psychological Issues faced by the Elderly Respondents

Though some (39%) of subjects felt lonely due to loss of spouse/friend, only 10% felt inadequacy from inability to continue their work, only 26% felt bored from retirement and lack of routine activities, but majority (75%) felt difficulty in not being able to manage regular activities independently. Financial stress was not a concern to almost all (97%) the subjects, since most of them were financially secure and well placed.

g. MEMORY LOSS

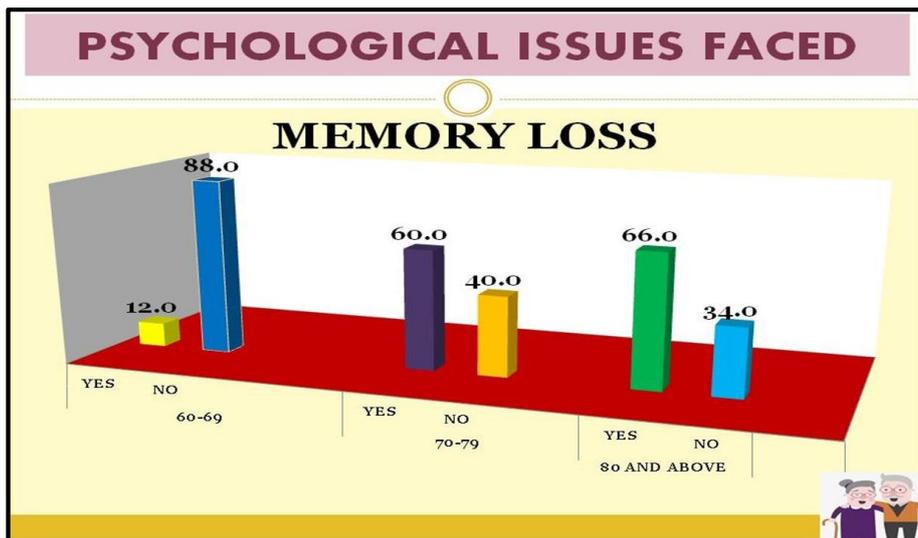


Fig 8: Memory loss among the selected elderly.

There was a sharp increase in memory loss with advancing age as is seen among the elderly subjects of both Middle – Old (60%) and Old –Old (66%) whereas only a few (12%) of ‘Young-Old’ had issues of poor memory.

h. ASSOCIATION OF THREE HEALTH ISSUES BETWEEN DIFFERENT AGES

The health rating was given by the subjects themselves. It was observed that most of the young were satisfied with their health status. Whereas, slightly more than half (68%) of the (Middle old) were satisfied with their current health status. The rating by the elderly subjects belonging to (Old-Old) category was very much supportive of the study, stating that more than half of the group was dissatisfied with their health status.

ASSOCIATION OF THREE HEALTH ISSUES BETWEEN DIFFERENT AGE							
Health issues	Age Range						significance
	60-69		70-79		80 and above		
	Yes	No	Yes	No	Yes	No	
1.Memory	12	88	60	40	66	34	0.001
2. Diabetes	50	50	46	54	62.5	37.5	0.05
3.Arthritis	38.3	61.7	28	72	39.5	60.5	0.164

A Chi square test was done to find out association of three health issues i.e. weak memory, diabetes and arthritis against the age ranges. It was found that both weak memory (p value 0.001) and Diabetes (p value 0.05) with less than 0.05, is associated with advanced ageing. Whereas Arthritis (p value 0.164) the value is greater than 0.05, therefore arthritis is independent with is no association on age.

Fig 9: Association of three health issues between different age ranges of the selected elderly.

The association between Age and Health related issues was found using *chi square* test. It is shown that weak memory (p value 0.001) is less than 0.05, therefore it is said that weak memory is associated with advanced ageing. Diabetes (p value 0.05) is also said to be associated with ageing. Arthritis (p value 0.164) the value is greater than 0.05, therefore arthritis is independent, so there is no association and could happen at any age.

4. SUMMARY, CONCLUSION AND IMPLICATIONS

Ageing population is a matter of great concern for the health sector. The elderly are, on the whole, is less healthy than the non-elderly. Among the elderly, increasing age is associated with higher morbidity and higher use of health services (number of visits to doctors and hospitalizations) (Karim HA, 1997). In anticipation of nations heading towards an ageing nation, health care providers need to be alert and informed of the special needs of the elderly (Nikolas T, 1996).

The spiraling cost in the field of health care may be counterchecked by improving preventive care, and involving family and community in the care of elderly as an alternative to hospitalization as far as possible. Besides the love and care of near and dear ones add zeal to the elderly to live independently in the community is also influenced by their health status and functional capabilities.

To conclude the study revealed that except in a few areas most of the physical, biological psychological issues of the selected elderly increase with advancing age. An increased awareness creation for the elderly is considered as an urgent need as most subjects thought since they had proper food intake they get enough nutrients, whereas many studies reveal that nutrient assimilation decreased with age. Shlisky, J., Bloom, D. E., Beaudreault, A. R., Tucker, K. L., Keller, H. H., Freund-Levi, Y., Fielding, R. A., Cheng, F. W., Jensen, G. L., Wu, D., & Meydani, S. N. (2017) is one such study supporting the above mentioned assumption.

When the subjects were asked to rate their health, it was observed that most of the ‘Young Old’ were satisfied with their health status yet slightly more than half (68%) of the ‘Middle Old’ and only half the ‘Old-Old’ were satisfied with their health. The data was very much supportive of the title of the main study, which was the “Age Associated issues among Elderly” stating that dissatisfaction and negative perception on health increased with advancing age. The limitation of the study was that the sample was not very much representative as it was conveniently selected and not random. If stratified random technique across the three categories of age group was carried out, a better picture of the issues could be availed. Validating the data with medical reports could not be done in some issues as no medical intervention was not done. Comparison of health perception and actual situation between male and female elderly is a good study area further research.

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