

# Comparative study of senile dementia in people doing exercise and sedentary life style above 60 yrs of age

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## Abstract

**Aim:** To compare the Senile Dementia in people doing exercise & sedentary life style above 60 years of age. **Background:** Dementia is syndrome of symptoms such as memory loss & decrease in ability to handle the daily functions of life. Normal aging can cause some minor changes in memory or learning, but not in a way that affects functioning. This study is to find out the prevalence of senile dementia in sedentary an exercise groups. **Objectives:** To find out difference in senile dementia between exercise doing and sedentary life style geriatrics age groups. **Materials and Methods:** In this study, 300 old age persons among these 150 sedentary & 150 doing exercise were invited to participate voluntarily. They were given MMSE & Clock Drawing Test. **Results and Discussion:** Among 300 persons; 150 in sedentary as well as exercise doing persons. Mean age, 72.3 years of age. Based on MMSE score among sedentary group 72% were positive & Clock Drawing Test score 74.66% were positive for dementia. Based on MMSE score among exercise group 45.34% were positive & Clock Drawing Test score 42.66% were positive for dementia. **Conclusion:** In present study, there was high prevalence of dementia in sedentary life style persons than persons doing exercise. Results add further weight to the idea that regular exercise can help keep the mind alert and lower the risk of cognitive problems like senile dementia as compared to sedentary group.

**Keywords:** senile dementia, life style.

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## INTRODUCTION

The term "dementia" comes from the Latin words "De (meaning away) and "Mentia" (meaning mind). Senile dementia-as the name implies-affects the elderly population and presents with cognitive decline that is more severe than typical difficulties with short-term memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities<sup>1</sup>. The hippocampus is the center of learning and memory in the

brain, and the brain cells in this region are often the first to be damaged. While symptoms of dementia can vary greatly, at least two of the following core mental functions must be significantly impaired to be considered dementia: 1) Memory, 2)Communication and language,3) Ability to focus and pay attention, 4)Reasoning and judgment, and 5) Visual perception.<sup>2</sup> Regular exercise was associated with reduced memory loss and thinking problems in older adults. Thus it helps to keep the mind alert and lower the risk of cognitive problems, and may be even Alzheimer's disease, in old age. A sedentary lifestyle is known to be an important risk factor for poor health and reduced functional ability. An excessively sedentary lifestyle leads to serious patho physiological consequences, including muscle atrophy, impaired balance, orthostatic hypotension and impaired cardio respiratory function; as well as psychological consequences such as apathy, depression and cognitive decline.<sup>4</sup> This study is to find out the prevalence of senile dementia in sedentary and exercise groups.

## AIM

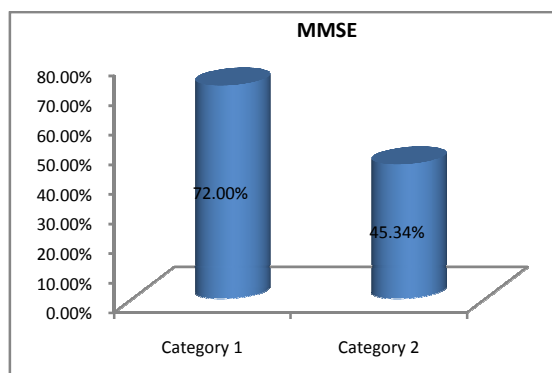
To compare the Senile Dementia in people doing exercise and sedentary life style above 60 years of age.

## METHODS

In this study, 300 persons of average age 72.3 years were selected. Among these 150 were sedentary and 150 were doing exercise (walking and YOGA). They were invited to participate voluntarily. They were given MMSE and Clock Drawing Test. "Mini-Mental State Exam" or MMSE, to screen for decline in memory and cognitive abilities. It is an 11-question measure that tests five areas of cognitive function: orientation, registration, attention and calculation, recall, and language. The maximum score is 30. A score of 23 or lower is indicative of cognitive impairment. The MMSE takes only 5-10 minutes to administer and is therefore practical to use repeatedly and routinely.<sup>5</sup> *Clock drawing test*-Another common screening tool is called the Clock-Drawing Test. The patient is asked to draw a clock and a specific time on it. Step 1 varies by specific test, the patient must also draw the circle or a 4-inch-diameter circle is drawn for the patient. He is then asked to draw a clock Step 2 also varies by specific test, the patient is asked to make the clock read "10 minutes after 11:00." Or make a correction on drawn clock. A perfect score on the clock test varies from 7 to 10, depending on which test is used.<sup>6</sup>

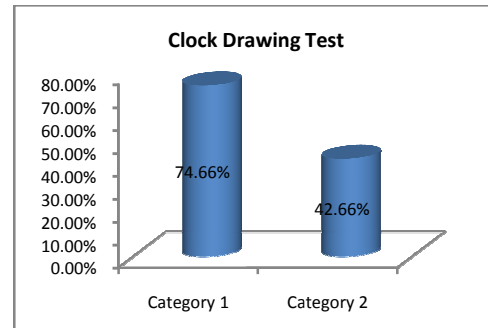
## RESULTS

Among 300 persons; there were 150 sedentary as well as 150 exercise doing persons. Based on MMSE score 72% i.e.108 sedentary persons and 45.34% i.e. 68 exercise doing persons were found positive for dementia.



Category 1- Sedentary Group, Category 2- Exercise doing Group

Based on Clock Drawing Test 74.66% i.e.102 sedentary persons and 42.66% i.e. 64 exercise doing persons were found positive for dementia.



Category 1- Sedentary Group, Category 2- Exercise doing Group.

## DISCUSSION

The result of our study show high prevalence of dementia in sedentary persons (72% and 74.66% respectively by MMSE and CDT) than exercise doing ones( 45.34%and 42.66% respectively by MMSE and CDT). Thus our study confirmed that there is high prevalence of dementia in the sedentary life style persons than Exercise doing ones. Our results coincide with following- The exercise is associated with a reduced risk of cognitive impairment and dementia; it may slow dementing illness.<sup>7</sup> Qualitative evidence indicates that physical activity contributes to mental health through maintenance of a busy and active life, mental alertness, positive attitude toward life, and avoidance of stress, negative function, and isolation. There is some evidence that physical activity can help in the management of people with dementia, by improving disruptive behaviour, functional health, sleep patterns and alertness. Results of COGNITIVE TRAINING FOR SMART AGEING Kawashima R indicate that along with cognitive training, regular exercise, balanced nutrition, and relationship with society has the beneficial effects of maintaining and improving cognitive functions of dementia patients and healthy seniors.

## SUMMARY

This study was undertaken to study and compare prevalence of dementia in sedentary life style persons and exercise doing ones. There were 300 persons of average age 72.3 years participated voluntarily. Among them 150 were sedentary persons and 150 were exercise doing ones. Mini Mental Status Exam and Clock Drawing Test were conducted to compare effect of exercise and sedentary (non exercise) life style on dementia. The result of our study show high prevalence of dementia in sedentary persons (72% and 74.66% respectively by MMSE and CDT) than exercise doing ones (45.34%and 42.66% respectively by MMSE and CDT). Thus our study confirmed that there is high prevalence of dementia in the sedentary life style persons than Exercise doing ones.

## CONCLUSIONS

In present study, there was high prevalence of dementia in sedentary life style persons than persons doing exercise. Results add further weight to the idea that regular exercise can help to keep the mind alert and lower the risk of cognitive problems like senile dementia as compared to sedentary group Physical exercise, mental stimulation and social interaction all seem to influence the maintenance or progression of cognitive abilities of demented elderly subjects, as assessed by the MMSE and Clock Drawing Test.

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