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AN ASSESSMENT OF STRENGTH AND BALANCE OF ELDERLY STAYING IN THE OLD AGE HOMES IN KERALA

Abstract

Aging is a gradual, life long process and highly variable characterized by a progressive and cumulative generalized impairment of physiological functions. We cannot stop aging .But we can age successfully by leading a healthy life style.The purpose of the study was to analyse the strength and balance of elderly staying in Old age homes. Thousand men and women above 60 age group were selected from various old age homes comes under Social welfare department of Kerala were the subjects. Lower body strength and dynamic balance/Agility were selected as variables for the study. Sit to stand test (30 secs.) and 8 feet up and go test (senior fitness test) were used for collecting data. The mean age was seventy. The normative score for the mean age seventy was used for to classify Risk , Normal and Excellent category .The following statistical techniques were used to analyses the data. Percentiles was employed to computed, .Chi-square test for equal proportion has been employed for testing significant proportion difference in various classes.The result of the study shows that the respondents were under high risk category in terms of lower body strength and balance .

Introduction

No matter Your Age, It's Never Too Late to Get Started”.

Aging is a multifactorial process resulting in damage of molecules, cells, and tissues, leading to a reduced efficacy of physiological functions with different pathological consequences (Corbi, Conti, Russomanno, Rengo, Vitulli, Ciccarelli, & Ferrara, 2012). To function independently and continue to perform activities of daily living, older people need to maintain

muscle strength and sufficient cardiovascular functional capacity (Fleg, Morrell, Bos, Brant, Talbot, Wright, & Lakatta, 2005). Aging is a gradual, life-long process and highly variable characterized by a progressive and cumulative generalized impairment of physiological functions (Kirkwood, 2017).

We cannot stop aging .But we can age successfully by leading a healthy life style. . Physical and mental wellness is key metrics in the definition of successful aging. One of the hallmarks of successful aging is the ability to manage factors of one's life independently. Engaging intellectually in activities and creative pursuits contribute fitness promotion and there by enjoys successful aging

The first truth about aging is that everybody does it .The second truth is that everybody does it differently. One of the most important concept of aging is individual differ in the way they age and the way they react to aging. Aging is a process or a group of process occurring in living organisms that with the passage of time leads a loss of adaptability, functional impairment and eventually death. Most die because the body loses the capacity to withstand physical or environmental stresses. (Waneen.W. Spirduso)

Orphanage Control Board under Social Welfare Department has been receiving 5 to 6 applications each month from 206-2017 seeking permission to stars old age homes in Kerala. There are 565 old age homes at present in Kerala accommodating 10500 persons. The rising of elderly is mainly due to the migration of youth to other countries and increase in the nuclear family .The ministry of statistics has published a report on the elderly in India IN 2016.It put the elderly people at 12.6% of the state population, the highest in India.

The functional assessment is one of the trademarks of the geriatric assessment ,distinguishing it from the evaluation of a younger person.It is unrealistic to cure completely since many conditions affecting the elderly are in chronic nature. It may not possible major improvements in the functional ability of older adult's .But even small changes or improvement can benefit a lot in the quality of life. For instance, to regain the ability to move from the bed to chair or chair to toilet may mean the difference between returning home from the hospital or skilled nursing home and being institutionalized.

Helping to delay physical frailty and improve functional mobility among older adults are two important goals especially for the fitness instructors. The quality of life in later years greatly depends on what you can do without pain as long as possible.

Objective

The purpose of the study was to analyse the strength and balance of elderly staying in old age home in Kerala.

Method

Thousand men and women above 60 age group were selected from various old age homes comes under Social welfare department of Kerala were the subjects. Lower body strength and dynamic balance/Agility were selected as variables for the study. Sit to stand test (30 secs.) and 8 feet up and go test (senior fitness test) were used for collecting data. The mean age was seventy. The normative score for the mean age seventy was used for to classify risk and normal category. The data coded with the normative score .The following statistical techniques were used to analyses the data.Percentiles was employed to computed, descriptive statistics that is mean, standard deviation and percentile has been computed for each of the components of functional capacity of seniors in home for aged in Kerala. Chi-square test for equal proportion has been employed for testing significant proportion difference in various classes

Table 1: Percentage distribution of respondents based on level of lower body strength and chi-square test of significance

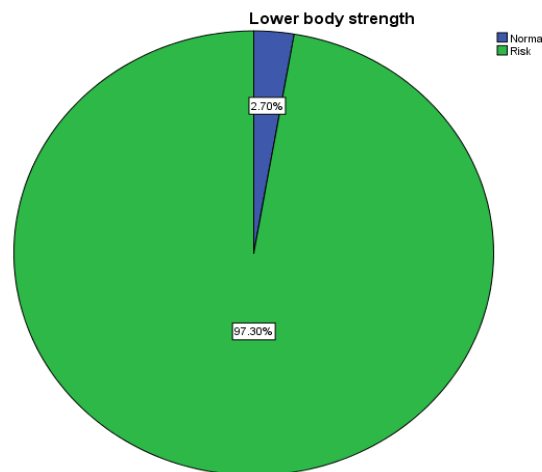
Lower body strength	Frequency	Percent	Chi-square	P
Normal	27	2.7	202.5	0.000**
Risk	973	97.3		
Total	1000	100.0		

***: highly significant (P<0.01)*

From table 1, chi-square test for proportion showed that the proportion of respondents based on level of lower body strength differ significantly (chi-square = 202.5, P<0.01). In the sample,

2.7 % belongs to normal level of lower body strength and 97.3 % belongs to risk category. Hence majority of respondents belongs to risk category based on their lower body strength.

Figure 1: Percentage distribution of respondents based on level of lower body strength



From table1, chi-square test for proportion showed that the proportion of respondents based on level of lower body flexibility differ significantly (chi-square = 268.4, $P < 0.01$). In the sample, 27.5 % belongs to normal level of lower body flexibility and 72.5% belongs to risk category. Hence majority of respondents belongs to risk category based on their lower body flexibility.

.Table2: Percentage distribution of respondents based on level of agility/dynamic balance and chi-square test of significance

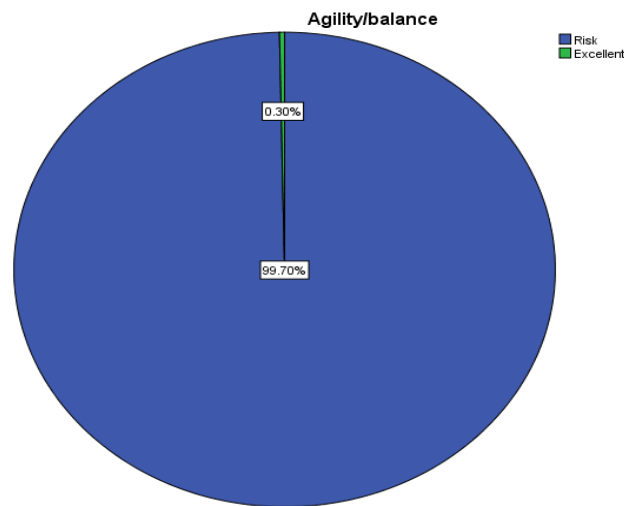
Agility/balance	Frequency	Percent	Chi-square	P
Risk	997	99.7	929.3	0.000**
Excellent	3	.3		
Total	1000	100.0		

** : highly significant ($P < 0.01$)

From table 2, chi-square test for proportion showed that the proportion of respondents based on level of agility/ dynamic balance differ significantly (chi-square = 929.3, $P < 0.01$). In the sample, 99.7% belongs to risk level of agility/dynamic balance and 0.3% belongs to excellent

category. Hence majority of respondents belongs to risk category based on their agility/dynamic balance.

Figure 2: Percentage distribution of respondents based on level of Agility/dynamic balance



Discussion

The study on the status assessment of strength and balance of elderly staying in old age homes of Kerala brought to many interesting findings and observations though the study had its own limitations ,many of the study observations have been an eye opener for those interested in the fitness of the elderly.

The finding of the study indicates that 97.3% belongs to Risk category and 2.7% only were in normal category. Hence it is very clear that the elderly staying in old age homes are under high risk in terms of lower body strength. This may be due to the lack of physical activity in the old age homes. From the general observations of the researcher, it is assuming that lack of movement and restrictions inside the old age homes may be reason for the reduced lower strength.

It was also found that 99.7% of the respondent's agility /balance shows high risk and only 0.3% were comes under excellent category. There is no normal category.

Conclusion

The analysis of data revealed that the majority of the respondents belongs to under high Risk category in terms of lower body strength and agility/dynamic balance .Strength and balance seem to be the most important two functional fitness components for maintaining an independent quality life. Sedentary life style is the main reason for deterioration of functional fitness. The

study brought to a light that some urgent interventions should be adopted by the authorities in old ages homes.

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