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## The Effect Of Six-week Walk Upon Static Balance And Flexibility Of The Sedentary Old Aged 60-70 In Zanzan-Iran

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### Abstract

The purpose of study was to consider the effect of six-week special walking program upon static balance and flexibility of the sedentary old aged 60-70 in Zanzan. In doing so, 24 old adults participated voluntarily in the program. They, at first, were examined to ensure their physical health was fit for the program.

Their mean age and weight was 65.1 and 76.1, respectively. They were divided into experimental (n=12) and control (n=12) groups. The results show that walking program had a positively significant impact on the static balance and flexibility of the old.

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*Key words:* the old, static balance, flexibility

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### 1. Introduction

In the last decades, the number of elderly individuals has increased significantly, currently reaching an unprecedented number of individuals. According to data from the United Nations Population Fund (UNFPA), there were around 204 million elderly individuals in 1950, worldwide. In 1998, almost 5 decades later, this number had increased to 579 million individuals. The estimates regarding the number of elderly individuals in 2050 indicate a population of approximately 1.9 billion people.

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The UNFPA1 estimates that, in 2050, life expectancy in developed countries will be approximately 87.5 years for males and 92.5 for females (compared to 70.6 and 78.4 yrs, respectively, in 1998), whereas, in the developing countries, it will be 82 yrs for males and 86 yrs for females, i.e., 21 years more than the current life expectancy, which is 62.1 and 65.2 yrs, respectively(1)

Basic exercise guidelines recommended by the American College of Sports Medicine for healthy adults and elderly people emphasize that training programs consist of resistance, strength, aerobic, and flexibility exercises. Resistive training (RT) is an exercise modality that imposes heavy loads upon the skeleton and, consequently, should increase both body strength and muscle mass in older women(2).

. In 2004, one meta analysis [6] had synthesized published results on the effects of exercise training for cognitively impaired older adults. Exercise training was associated with positive effects on health, physical, cognitive, functional and behavioral components. It would seem that physical activity slows down the effects of pathological aging by maintaining and even enhancing the executive functions, which can be defined as a variety of high-level cognitive processes allowing for behavior that is flexible and context-adapted [7], communication abilities [8] and the cognitive functions [9, 10,3]. Nowadays, evidence is available that physical activity has positive effects on cognitive functioning in cognitively non-impaired older people (Colombe & Kramer, 2003). In particular, intervention studies found positive effects on executive functions such as planning, scheduling, working memory, inhibitory processes and multitasking (Daniels et al., 2006; Duke et al., 2000)(4). Balance involves the interaction of automatic postural and voluntary motor commands of both the trunk and limb musculature . Automatic postural responses are modulated by both trunk and leg inputs with the central nervous system (CNS) performing anticipatory postural adjustments when expecting self-inflicted postural perturbations . Because under conditions of high instability the CNS may suppress anticipatory postural adjustments, voluntary responses of trunk and limb muscles to postural challenges would play a prominent role. Stretch-induced changes to either the afferent limb muscle responses (proprioception) or the mechanical output would be expected to affect the ability to adapt effectively to stability challenges(5).

## **2.Methodology**

24 old men took part in our study voluntarily.They were used to coming to parks and had no regular physical activity records.They were,first,examined to ensure their health.The participants' mean age and weight were 65.1 and 76.1 Kg,respectively.The participants were divided randomly into 2 groups namely-experimental group(n-12)and control group(n-12).The experimental group took part in walking programme for 3 times a week through 6 weeks,whereas the control group kept on their routine activities.

### **3-Findings**

The results showed:

Walking drills had a statistically significant and positive impact on the flexibility and statistic balance of the sedentary old men.In addition,by contrast,experimental group had a good records and scores in this regard.

### **Acknowledgements**

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