

Implement A Healthy Lifestyle Of The Elderly People In The Penipe Canton, Chimborazo Province

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ABSTRACT

The intention of this article, is to implement a healthy lifestyle program for older adults in the Penipe Canton, in the Province of Chimborazo, to assess and improve the lifestyle of this sector of society that traditionally are far from the daily agitation of young people and are often separated from their own families and activities because they do not have the same conditions to carry out activities that they previously managed to execute very easily. The main processes of aging, the structural changes that it generates and its physiological or pathophysiological consequences are considered as the foundation. Likewise, the benefits of a program of physical activity or exercise directed to this population are generally presented. The deductive and inductive method was used; Thus the research design is documentary because an investigation was made in the databases Science Direct, Springer Journal, Springer books and Pubmed, and on the field, since it was carried out in the specific site where the project will be applied, the Type of study is longitudinal. It is intended to investigate what factors guarantee an adequate lifestyle despite the years they have lived. Which are the environments that make your life worthy and that motivate you to make the difference between several people who have the same life circumstances and lead a stationary life. It may depend on the support you receive, your environment, food and care you need to continue your daily activities. This project aims to adapt the older adult organism to a planned training system; Exercise programs will help reduce health costs by reducing falls, strokes, myocardial infarctions or chronic diseases of the aging process.

Keywords: lifestyle, Senior citizens, mental health, family.

Introduction

Human aging is a universal and inevitable phenomenon. The average life expectancy has improved in the last century and therefore it is a reality that the elderly population has been growing in each family, in the Penipe Canton, province of Chimborazo, specifically, being necessary to implement action plans to provide adequate and necessary care in the field of health, socially and economically. It is essential to guarantee a system of medical, psychological, physical and nutritional quality care, a community that does not separate and stigmatize them, but on the contrary, that dignifies them and is an active part of the environment in which they operate; At the same time, it is necessary that the local, provincial and national government authorities establish policies, programs, projects that guarantee a dignified life in all aspects. (González-Celis, 2012).

Aging in humans is associated with a loss of neuromuscular function and performance, partly related to the reduction of muscle strength and power, caused by a loss of skeletal muscle mass (sarcopenia) and changes in muscle architecture. This decrease in muscle strength and power, along with other factors such as the aging of the somatosensory and motor nervous system, has functional implications, such as decreased walking speed, increased risk of falls, and reduced capacity for carrying out activities of daily living (ADL). All this contributes to a loss of independence and a reduction in the quality of life of people.

Therefore, it is important to establish strategies that support improving the quality of life of the elderly. In this context and according to the characteristics and changes related to the aging process, it is significant to know the lifestyle with which

this stage is lived. This discernment is of fundamental interest in the area of health, since this is the most important in the perception of well-being in the elderly; However, the quality of life is not only aimed at evaluating this aspect, but also includes social, economic, nutritional and personal factors (González-Celis, ob.cit.).

However, it is important to point out that not all elderly people live maturity in the same way, their functioning during this stage is related to the actions and omissions that each person makes during the course of their life; that is, "old age is built from youth". Thus, although the aging process is normal, natural and inevitable, it can have different results, generally reflecting the care or carelessness that has taken place throughout life (ob.cit.). The lack of physical activity is an important risk factor that leads to chronic health problems, such as cardiovascular diseases, hypertension, obesity, osteoporosis, diabetes mellitus and mental health.

A fundamental challenge in the current context is to guarantee a quality lifestyle to the elderly, for which it will be necessary to look for allies that collaborate in the different areas to achieve this objective, in the sector of this community, there is a high percentage of people who have already turned 50 and there have been cases of people who could reach 100; therefore, it is urgent to reflect on the quality of life that one wants to have in old age and to take measures aimed at protecting health and well-being in the future (Ob.cit.)

The aging

It has been considered that old age is a multifactorial path, (biological, psychospiritual, social), but essentially biological. The genetic importance in the regulation of biological aging is manifested by the characteristic longevity for each species.

However, the inheritance only influences around 35% of the variability of the total survival time of a species, while the environmental factors are responsible for the remaining 65%.

Aging is a physiological process that begins at conception and produces characteristic changes of the species throughout the life cycle. These changes cause a restriction on the adaptability of the organism in relation to the environment. Despite this situation, it is essential to differentiate aging as a process: The WHO in its document "Men, aging and health" considers this difference. Aging as a process (normal aging) represents the universal biological changes that occur with age and that are not affected by the influence of diseases or the environment. In this way, not all changes related to age have negative clinical consequences. On the contrary, the aging process is very influenced by the effects of environmental states, lifestyle and diseases, which, in turn, are related to aging or change due to aging but that are not due to aging itself.

The balance that occurs in these changes in the different organs of the same person or in different people in a differential way. The cut-off point to define aging, for statistical purposes, is the age of 60 years, but for biological effects, this point is marked by the decline of somatic and mental activities. In this regard WHO uses categories that start at the age of 65.

Characteristics of aging

Aging has inherent and well-defined characteristics in all living beings, including:

- Universal: that is proper to all living beings.
- Progressive: as life goes by, effects are produced on the organism, which, when accumulated, originate the changes of aging.
- Irreversible: unlike diseases, it can not be stopped or reversed.
- Heterogeneous and individual: each species has a characteristic speed of aging, but the speed of functional decline varies enormously from subject to subject, and from organ to organ within the same person.
- Deleterious: leads to a progressive loss of function. It differs from the process of growth and development in that the purpose of the latter is to reach a maturity in function.
- Intrinsic: it is not due to modifiable environmental factors. In the last 20 years there has been a progressive increase in the life expectancy of the population, the maximum survival of the human being is manifested around 118 years. As diseases have been better prevented and treated and environmental factors have been improved, the survival curve has become more rectangular. It is observed that a majority of the population manages to live until very advanced ages with good health and usually dies around the age of 80.

All of the above allows us to understand that currently we can count on a higher survival rate, but that this is definitely associated with different physical and physiological changes. The information below allows us to observe the structural changes in the different devices and systems, each with its physiological or pathophysiological consequences, typical of the aging process itself.

Structural changes

√ Body composition:

- Decrease in body water.
- Decrease in the size of organs.
- Relative increase in body fat.

√ Integumentary system:

- Decreased epidermal cell turnover.
- Dermoepidermal and subcutaneous atrophy.
- Decrease in the number of melanocytes.
- Atrophy of hair follicles and sweat glands.
- Decreased activity of sebaceous glands.
- Decrease in dermal vasculature and capillary loops.

√ Cardiovascular system:

- Decrease in the number of myocardial cells and contractility.
- Increased resistance to ventricular filling.
- Decrease in AV pacemaker activity, conduction velocity and sensitivity of baroreceptors.
- Rigidity of the arteries.
- Decrease in cardiac output and blood flow of most organs.

√ Respiratory system:

- Decreased distensibility of the thoracic and pulmonary wall.
- Loss of alveolar septa.
- Collapse of the airways and increase in the volume of closure.
- Decreased cough strength and mucociliary clearance.

√ Renal system:

- Absolute decrease in the number of nephrons, decrease in renal weight.
- Decreased bladder tone and sphincter.
- Decreased bladder capacity.
- Prostatic hypertrophy in men and decreased tone of the pelvic muscles in women.

√ Gastrointestinal system:

Boca:

- Decreased production of saliva.
- Dentine and enamel erosion.
- Root resorption and apical migration of tooth support structures.

Esophagus:

- Decreased peristalsis.

Stomach and intestine:

- Decrease in the secretion of acid and enzymes.

Colon and rectum:

- Decreased peristalsis.

Nervous system:

- Variable neuronal loss.
- Decrease in interdendritic connections and cholinergic neurotransmission.
- Decreased cerebral blood flow.
- Decrease in driving speed.
- Alteration in the mechanisms of temperature control and thirst.

√ Senses:

Vista:

- Altered vitreous and retina physiology.
- Macular degeneration Coloring disorder, stiffness and size of the lens.

Ear:

- Decreased function of sensory cells in the vestibular apparatus.

Taste and smell:

- Decrease in number and function of taste buds and olfactory sensory cells.

- Decrease in the production of saliva.

Touch:

- Decreased tactile acuity and temperature.

- Intact pain receptors.

√ Locomotor apparatus:

Height:

- Shortening of the spine by disc narrowing.

- Cifosis.

Bones:

- Long bones retain their length.

- Universal loss of bone mass.

Joints:

- Reduced joint elasticity.

- Fibrillar degeneration of the articular cartilage, with atrophy and denudation of the surface.

Muscles:

- Decrease in the number of muscle cells.

- Increase in muscle fat content.

Physiological or physiopathological consequences

- Decreased resistance to dehydration.

- Alteration in the distribution of drugs.

- Cutaneous wrinkles and laxity.

- Fragile capillary.

- Telangiectasias.

- Susceptibility to decubitus ulcers.

- Cutaneous Xerosis.

- Actinic Keratosis.

- Bleeding and alopecia.

- Decreased cardiac reserve.

- Low response of the pulse with exercise.

- Arrhythmias.

- Increase in pulse differential pressure.

- Increased blood pressure.

- Inadequate response to orthostatism.

- Postural syncope.

- Decrease in vital capacity.

- Increase in residual volume and arterial oxygen difference.

- Increased risk of infections and aspiration.

- Reduction of glomerular filtration (the creatinine figure is maintained by production decrease).

- Decreased concentration ability and maximum glucose resorption capacity.

- Incontinence.

- Loss of teeth.

- Prolonged esophageal transit.

- Esophageal reflux.

- Dysphagia.

- Gastric polyposis and intestinal metaplasia.

- Constipation and diverticulosis.

- Fecal incontinence.

- Intellectual alterations.

- Slowness and lack of movement.

- Postural hypotension, dizziness, falls.

- Reappearance of primitive reflexes.

- Hypo and hyperthermia.

- Dehydration.

- Decreased visual acuity, visual fields and speed of adaptation to darkness.

- Disorder in the accommodation and pupillary reflexes.

- High frequency of cataracts, astigmatism and myopia.

- Decreased hearing (high frequencies), discrimination of sounds and disturbances of balance.

- Decrease in gastronomic satisfaction.

- Progressive descent of height.

- Osteoporosis.

- Vertebral collapse and fracture of long bones with minimal traumas.

- Joint limitation.

- Loss of progressive muscle strength.

- Decreased muscle mechanical efficiency.

Changes in cognitive function

It is the result of the global functioning of its different intellectual areas, including thought, memory, perception, communication, orientation, calculation, understanding and problem solving. This function changes with age. At present, a disorder characterized by an acquired cognitive impairment of sufficient severity to affect social and professional functioning is understood as dementia. The signal of dementia is powerful. This does not only affect the health and well-being of the elderly, but is also related to a heavy burden for the person responsible for their care, an increase in the use of health services and long-term care needs.

Elderly people with cognitive impairment require greater control when planning their care and making decisions, since an appropriate management can substantially improve the quality of life and reduce the development of complications.

The loss of recent memory is considered to be the particular general sign of cognitive changes, during aging. The person is sensitive to recall recent events and also suffers small forgetfulness. Different factors are interrelated with this memory loss, although the precise causes as well as the scope of this interaction are unknown, ranging from neurological and circulatory changes that affect brain function, oxygenation and cell nutrition, to motivation, loss of interest in the environment, feelings of helplessness, depressive states, disagreement with the current life situation and the experience of duels, among others.

They also show difficulties in the sequential organization of new information, as well as the ability to synthesize. Long-term memory, or remote memory, seems to be well preserved, seniors remember old situations and events, but also new events stored in their remote memory. They have the capacity to evoke in detail, events that took place in another period that is probably very significant in their life. Remote memory allows you to remember and keep vocabulary, experiences, memories and much more useful information about the world around them and about themselves. It is important to keep in mind that visual memory remains intact for longer than auditory memory or that temporal spatial relationships.

The conservation of physical activity in the elderly

The objective of achieving a positive experience in the aging process must be accompanied by continuous opportunities for health, participation and security. The World Health Organization (WHO) uses the term "Active Aging" to express the process by which this goal is achieved.

Therefore, "Active Aging" could be defined as a process of optimizing health, participation and safety opportunities in order to improve the quality of life as people get older.. The term "active aging" was adopted by the WHO in the late 1990s with the intention of conveying a more complete message than that of "healthy aging" and recognizing the factors that together with health care affect the aging of the elderly. Individuals and populations, considering that this process is carried out within a social context in which friends, colleagues, neighbors and families are involved, interdependence and solidarity, are fundamental to achieve autonomy, health, integration and productivity. the elderly people in the society where they operate.

Active aging, that is, an active and continuous participation in social, economic, cultural, spiritual, physical and occupational therapy situations, is applied to the elderly in order to increase their physical, social and mental wellbeing potential. Throughout their life cycle and participate in society according to their needs, desires and abilities, which in turn provides them with protection, safety and proper care when they need assistance, allow us to expand a path to lead a healthy lifestyle.

Basic conditions for a healthy lifestyle in the elderly

Physical activity prevents risk factors for heart disease, obesity and diabetes. Periodic participation in moderate physical activities can delay functional decline and reduce the suffering of chronic diseases. An active lifestyle improves mental health and tends to favor social contacts and preserve the greater independence of the elderly.

Recall that the aging process is associated with alterations in body composition, including a reduction in lean body mass and an increase in fat body mass. The decrease in lean body mass due to aging occurs mainly as a result of the loss of skeletal muscle mass. The age-related loss of muscle mass is called sarcopenia.

Abdominal obesity in the elderly is associated with cardiovascular diseases, type 2 diabetes mellitus and cancer. On the other hand, if physical activity is reduced and coupled with a reduced intake of food, the incorporation of micronutrients into the body may become insufficient and will jeopardize their nutritional status, on the contrary it helps to strengthen the connective tissue and the increased flexibility, improved brain circulation and in the synthesis and degradation of neurotransmitters, and in indirect mechanisms such as: decrease in blood pressure, decrease in plasma concentrations of low density lipoproteins (LDL), decrease in triglyceride concentrations, and inhibition of platelet aggregation, in addition, there are fewer alterations in the cognitive functions of people of the seniors who perform regular physical activity.

Physiotherapy in the elderly

As the age of 65 is exceeded, the likelihood of a functional limitation in the coming years increases progressively. For this reason, the role of geriatrics in trying to prevent or minimize this loss of independence for the activities of daily life is very important, especially in relation to frail older adults. However, several studies suggest that some dual task exercises may be associated with a greater balance, because postural control is guaranteed at the motor sensory level.

Physiotherapy helps promote, prevent, cure and restore the health of older adults, stimulating their independence. Applies the methods and techniques based on a deep knowledge of the functioning of the human body, its movements, functions and its interaction with the environment. Thus, several physiotherapy programs designed to prevent the complications of osteoporosis have been designed in the last 10 years. These programs seek to maintain bone mass or decrease the risk of falls, treat the problems of disability generated by diseases such as Parkinson's, Alzheimer's, arthritis, fractures, osteoporosis and cardiorespiratory problems, among others and promote movement and independence through strength exercises and resistance, relaxation techniques, pain management, prescriptions for adaptation of equipment and mobility aids and other self-care.

Physical activity and exercise positive aspects for the elderly

Physical activity is a health promotion action. The consensus of the National Institutes of Health, defines physical activity as "Body movement produced by the skeleton and muscles, which requires energy expenditure and produces progressive benefits in health", while the exercise is described as "*A structured, planned and repetitive body movement performed to improve or maintain one or more components of physical fitness.*"

There is a large number of benefits generated from the practice of physical activity or regular exercise, among which are:

- Prevention and reduction of the risks of diseases such as: obesity, diabetes mellitus, osteoporosis, colon cancer, coronary disease, postmenopausal endometriosis, depression and accidents related to falls.
- Increase in longevity and decrease in disability.
- Reduction of anxiety and stress.
- Increased confidence and self-esteem.
- Maintaining a healthy weight and improving physical capacity.
- Strengthening of muscles and bones.
- Improvement of mood.
- Improvement in sleep patterns.
- Minimizes biological changes related to aging.
- Reverses syndromes due to disuse.
- Prevents chronic diseases.
- Controls and improves the symptoms of chronic diseases.
- Maximizes psychological health.

More specifically at the level of the musculoskeletal system, the benefits of exercise or physical activity can be seen in:

- Increase of mineral density in adolescents, their maintenance in young adults and retardation of their decline in older adults.
- Delay of the progression of osteoporosis, although it does not reverse advanced bone loss.
- Delay of osteoarthritis.
- Specific benefit of high-impact bone exercise.
- Reduction of the risk of functional disability in the elderly.
- Improvement of strength and flexibility.
- Increased balance, mobility, and functional physical performance.

At the level of functional capacity, regular exercise or physical activity achieve:

- Reduce the risk of falls due to an increase in strength, flexibility and balance.
- Reduce the risk of fractures.
- Facilitate the rehabilitation of acute and chronic diseases.
- Decrease reaction time, maintaining cerebral perfusion and cognition.

In individuals with cardiovascular disease, exercise gets:

- Prevent vascular brain accidents.
- Contribute to the treatment of peripheral vascular disease.
- Decrease sedentary lifestyle and low physical fitness, which are the main risk factors for coronary heart disease in men and women.
- Decrease the risk of dying from coronary heart disease compared to smokers.
- Modify other cardiovascular risk factors such as decreased blood pressure and changes in lipid profiles.

Exercise or regular physical activity in overweight and obese people achieve:

- Maximize fat loss combined with proper diet.
- Increase lean muscle mass.
- Improve physical fitness.

In people with diabetes:

- Regular physical activity helps better control of glucose levels.
- Minimizes the risk factor for developing type 2 diabetes.

The practice of regular exercise or physical activity generates a psychological well-being by reducing anxiety and improving self-perception, it also helps to relieve stress and improves sleep.

Methods

The deductive and inductive method was used; Thus, the research design is documentary because an investigation was carried out in the databases Science Direct, Springer Journal, Springer books and Pubmed, and it is field, since it was done in the specific site. The following search terms were handled: aging, physiotherapy, physical activity, physical exercise, older adult. The articles examined included reviews, research articles and book chapters.

Synthesis of the data

It provides the foundation of the main processes adjusted to aging, the structural changes that this conceives and its physiological or physiopathological consequences. The term "Active Aging" is proposed, proposed by the WHO, which proposes health promotion strategies and prevention of deficiencies and disabilities and integrates physical exercise or physical activity programs practiced on a regular basis. Physiotherapy helps to promote, prevent, cure and recover the health of people, some of the programs are proposed to treat the problems of disability generated by diseases such as Parkinson's, Alzheimer's, arthritis, fractures, osteoporosis, falls and cardiorespiratory problems. They promote movement and independence through exercises, relaxation techniques, pain management, cardiorespiratory care and other.

Conclusions

The fundamental aspect to have a population in optimal conditions of healthiness is the one called by the WHO "Active Aging", which is based on strategies of health promotion and prevention of deficiencies and disabilities and involves programs of physical exercise or physical activity practiced on a regular basis, is associated with a lower risk of morbidity and mortality and with an improvement in the lifestyle of the older adult. It is necessary to consider that exercise or physical activity programs aimed at elderly people should be aimed at improving their physical conditions but mainly to improve balance, maintain or favor the functional independence of the elderly.

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