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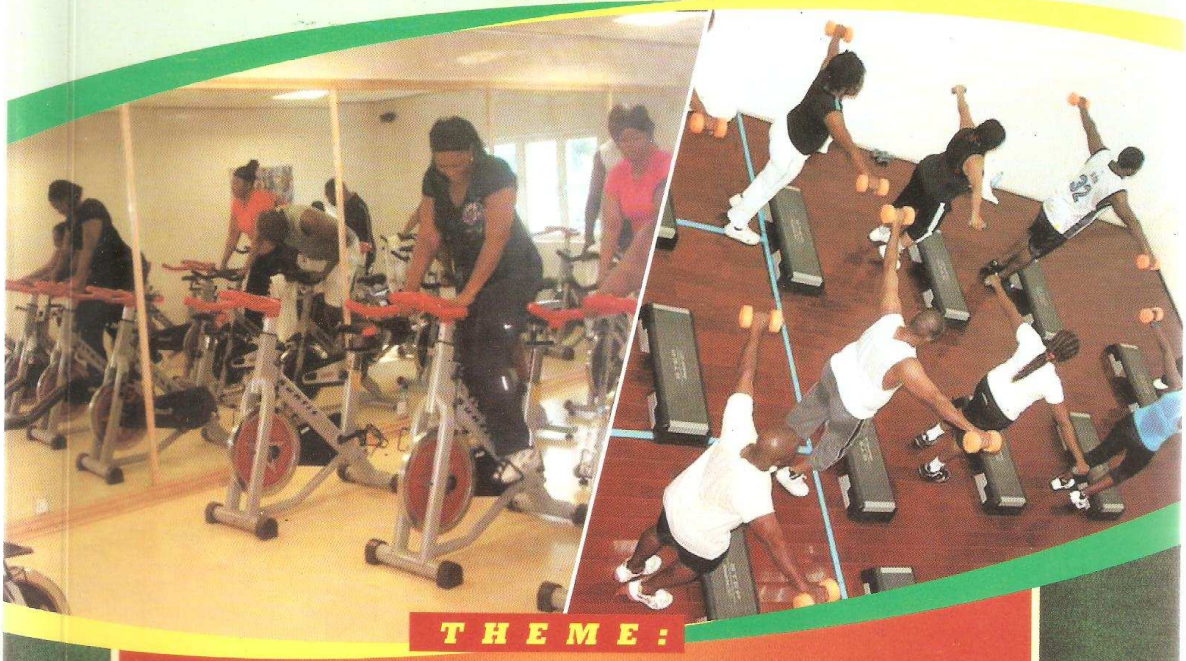

THEME:

PERSONAL AND CORPORATE FITNESS TRAINING IN NIGERIA.

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THE AGEING PROCESS, PHYSICAL ACTIVITY AND HEALTHY LIVING

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ABSTRACT

Ageing and physical activity are two distinct concepts that cannot be underestimated as it has been proven that involvement in physical activity can increase life expectancy and make the ageing process most interesting as against being overwhelmed by various health challenges. This paper examines the benefits of physical activity to healthy ageing and documents several ways by which the aged can gain maximally from physical activity.

Introduction

The body starts the ageing process as soon as a baby is born and this continues throughout life. Therefore, the ageing process could be described as starting from cradle to grave Ageing is a natural process and cannot he stopped but it is possible to retard the speed. Shepard (2007) identifies factors that may lead to premature ageing as tobacco, alcohol, stress. inactivity and improper diet.

Ageing does not necessarily begin at forty or fifty. At this moment, everyone is ageing or going through the ageing process. A person who celebrates his or her thirtieth or fortieth birthday may find out that those milestones in life also come with sober reflections about the earning of growing older and opportunities at have been lost over the years about taking a particular path in life rather than another.

Hurley & Reuter (2011) describe ageing as a complex process involving many factors which interact with one another and genetic factors. According to DeSpelder & Strickland 02), the stereotyped image of an aged on is marked by such outward signs as dry wrinkled skin, graying hair. Baldness failing eyesight, loss of hearing. Stiff joints and general physical debility. Williams (2003) sees ageing as a passage of time and have positive connotations as in “ageing wine”. It is a biological process of growing older in a deleterious sense, what is being referred to as senescence.

Ageing is also a universal phenomenon and its impact can be felt on every strata of the society. Ageing may sometimes be termed as a burden but it is indeed a national asset. With older

populations' experience and maturity. creativity, which would be useful for the development of the nation, could be achieved. According to DeSpelder & Strickland (2002), growing old is not essentially a "medical problem" as nobody knows what the best of our years would be because the greatest of human possibilities remain to the very end of life. When people think of ageing. they also think about death whereas old age does not confer death. Many other people look upon ageing with fear and for this may feel complacent about living an active and healthy life. People who follow good health practices and engage in physical activity are more likely to enjoy a healthy active old age.

Burton (2012) opines that ageing is a process of growing old and gradual biological impairment of normal functioning probably as a result of changes made to cells and structural components such as bone and muscles. These changes would consequently have a direct impact on the functional ability of organs (such as the heart. kidney and lungs). Biological systems (such as nervous, digestive and reproductive systems) and ultimately the ore,anism as a whole.

Leaf (2011) conducted a study among the Hindu-Kush population in the China- A tHhanistan border and lbund out that factors that delayed their ageing process and elongated their lifespan included pooragrarian culture in which daily hard labourwas the norm. vigorous daily physical activity beginning in childhood and persisting throughout life, a vegetarian diet and a strong support for the elderly.

Heikkinen (1998) observes that ageing is an integral part of life. The way in which we grow and experience this process for healthy living and functional ability depends not only on our genetic make-up but on what we have done during our active lives. Matteson (1997) suggests that with the process of ageing. most organs undergo a decline in functional capacity and in their ability to maintain homeostasis, Therefore, ageing is a dynamic process which involves many internal and external influences including genetic programming with both the physical and social environments.

Physical Activity and the Ageing Process

Physical activity has been linked to healthier lifestyles in people and even older adults. The duration and intensity of physical activity at this stage of life is usually regulated and cannot be as it used to be in order to prevent accidents. Shepard (1997) observes that physical activity can maintain functional abilities, well being and independence in older persons. Barnett. Smith, Lord. Williams & Baumand (2003) suggest that moderate intensity exercise is an effective intervention strategy for preventing falls in older people.

Physical activity, fitness and health can be affected by six identified areas which are body shape. bone strength. muscular strength. skeletal flexibility, motor fitness and metabolic fitness. Areas of the body that most often benefit from active lifestyle are cognitive function, mental health and social adjustment. Bouchard & Shepherd (1994) define exercise as a regular. patterned time

activity pursued to achieve desirable fitness outcome such as an improved level of general health and/or physical performance. Fontane (1996) describes physical activity as a continuum of physical behaviour which can be enumerated as activities of daily living, instrumental activities of daily living, general activity and exercise, fitness and exercise and exercise training.

The benefits of physical activity are as follows:

1. It improves the chances of living longer and healthier.

2. It helps to protect the individual from developing heart disease. stroke and undesirable blood lipid profile.

3. It helps protect one from developing certain cancers including colon and breastcancer.

4. It helps prevent type 2 diabetes and metabolic syndrome that increases the chance of developing heart disease and diabetes.

5. It helps prevent the insidious loss of bone known has osteoporosis.

6. It reduces the risk of falling and improves cognitive functions among older adults.

7. It relieves symptoms of depression and anxiety and improves mood.

8. It prevents weight gain, promote weight loss.

9. It improves heart, lung and muscle fitness.

10. It improves sleep. (2008 Physical Activity Guidelines for Americans)

Okuneye, Idowu & I (2011)and Okuneye (2013) also establish that there is a high level of awareness of health benefits of physical activities among the populace under study; yet less than 10% of the population regularly engage in them. This population of course did not exclude the elderly. Okuneye (2008) also affirms that poor habit formation towards participation in physical activity in childhood would largely contribute to physical inactivity in adulthood. However, as the body ages. the need for physical activity cannot be underestimated as this will make the body go through the process of ageing with less fear and apprehension.

Studies (Hurley & Reuter. 2010 Lonkshin. 2011) have shown that regular physical activity increases average life expectancy. This can only be achieved through its influence on chronic disease development. Physical activity makes an individual active and all organs work fine to make life more meaningful and interesting. The cost of physical inactivity can he enormous. Wojtek. Proctor. Singh. Minson. Nigg. Salem and Skinner (2010) suggest that although no amount of physical activity can stop the ageing process. a moderate amount of regular exercise can minimize the physiological effect of an otherwise sedentary lifestyle and increase active life

expectancy by limiting the development and progression of chronic disease and disabling conditions.

Observations have shown that a person who starts to participate in physical exercise early in life tend to continue it to later years. Physical inactivity has also been considered as an unnecessary waste of human resources. A passive mainly sedentary life has been pointed as an important risk factor for poor health and reduced functional ability (Mobily. 1997). Lowered level of physical activity would lead to chronic diseases that often accompany increase in age. Therefore. a greater degree of physical activity can help to prevent many of the negative effects that ageing has on functional ability and health.

Heikkinen (1998) suggests that benefits to be gained from sensible physical exercise considerably outweigh the potentially adverse effects. These benefits include improved functional ability, health and quality of life with a corresponding decrease in health care costs both for the individual and the community. Physical activity involves no immediate drawbacks: although excessively, intensive exercise may cause injuries and/or illness and subsequent cost. This kind of cost benefit analysis provides a useful basis for evaluating campaigns that encourage physical activit as a path to bettei health

WHO (1998) affirms that with the continuing growth of the elderly populations in modern societies, it has become a matter of increasing urgency to look for ways to maintain and improve the functional abilities of ageing people to help them cope independently in the community and ultimately to raise the quality of their lives.

Furthermore. it has been found out that if exercise and regular physical activity benefit the both then a lifestyle that is sedentary does the opposite by increasing the chances of becoming overweight and developing a number of chronic diseases (Wang. Pratt. Macera & Zaeng. 2004). Theses authors also report that despite all the benefits to be derived from staving active through physical activities. a study conducted among adults in America found out that only about 3O% reported that they get regular physical activity during leisure time and 40% reported not getting involved in physical activity at their time at all.

Similarly. Pratt. Macera & Wang (2000) also found out that regular involvement in physical activity reduces medical care cost, increases life expectancy and gi\es an individual the opportunity to age gracefully and even enjoy old age devoid of too many health challenges. Not too long ago. studies (Owen. Healy, Mathews. Barr & Dunstan 2010) have found that people who spend more time each day watching television, sitting or riding in cars, have a greater chance of dying earlier than those who spend less time in these activities. These researchers speculate that sitting for hours on end may change the body metabolism in ways that obesit, heart disease, diabetes and other chronic diseases are promoted. This goes to confirm that engaging in physical activity. either moderately or intensely, depending on the individuals age.improves the

ageing ‘process: taking away wrinkles, reducing the tendency for falls and development of debilitating diseases.

Rowland (2014) also affirms that it is now well recognized that those who are physically active on the average survive longer than those living sedentary lives. Regular exercise reduces health risk factors like hypertension, obesity and reduced bone density. It has also been found out that athletes who maintain high level of sport activity through their adult years can expect to benefit from limited secondary ageing.

Secondary ageing can be vie as factors that contribute to hastening •the ageing process whereas primary ageing could be attributed to genetic makeup and calorie intake. Increase in average life span over the past century could be linked to reduced risks of infectious diseases and avoidance of health risk factors such as high-calorie diets. smoking. inactivity and high blood pressure.

Any form of physical activity is suitable for anyone at any age provided that it is not excessive in terms of general or local stress loads. Age is not in itself an obstacle to physical activity. Indeed, exercise can contribute to positi\ e changes and increased physical performance in older people just as it does in younger people.

Fiatarone (2009) asserts that the most common form of physical activity for older people is walking. Many older people enjoy different forms of so-called utility exercise such as gardening and other outdoor jobs around the house. It is also quite common for older people to decide to walk to the shops or do other errands on foot simply in order to get some exercise and fresh air.

The Benefits of Physical Activity for the ageing process include the following

I. Involvement in regular physical activities reduces the risk of physical disability in old age.

2. It helps in the reduction of chronic diseases such as diabetes, high blood pressure. cancer, bone and connective tissue and will help improve cognitive function. This will ultimately make an individual live longer and age well.

3. Physical activity also improves sleep quality as the body goes through the ageilig process.

Factors that may discourage an older adult from considering physical activities are:

I. Taking the ageing process and its accompanying health challenges as problems not too serious to be dealt with

2. Loss of loved ones and widowhood.

3. Living alone or boredom.

4. Attitude towards physical activity from the outset.

5. Relationships with children.

6. hanges in living pattern.

Conclusion/Recommendations

Physical activity and exercise should meet individuals' needs. It is important to make the elderly know why it is important for them to engage in limited physical activity. There may be need for persuasion in order for them to be convinced that age is no obstacle to physical activity and that the more they invest in maintaining their capacity to move, the more they will enjoy physical independence. Based on this. the following are hereby recommended:

1. Exercise prescription for older adults should include aerobic, muscle strengthening and flexibility exercises.

2. Individuals at risks of falls or mobility impairment should perform specific exercises to improve halance.

3. The intensity and duration of physical activity should be low at the outset for those who are highly deconditioned, are functionally limited or have chronic condition affecting their ability to perform physical tasks.

4. The progression of the prescribed activities should be individualized and planned according to tolerance and preference of the individual concerned.

5. The principle of behavioural change should also be incorporated into the design and application of the physical activity programme as this will increase the likelihood of an individual to initiate, maintain and sustain a regular physical activity level.

6. Older adults should also be encouraged to develop a personalized physical activity plan that meets their needs and personal preferences.

7. It may also not be out of place to organize seminars and workshops from time to time to make them mentally prepared for the ageing process as this has been indicted as one of the problems of dealing with the process.

REFERENCES

Barnett, A.. Smith B.. Lord, SR., Williams M. and Baumand, A. (2003). Ageing and physical activity for older adults Age and ageing, 32(4,), 407-414.

Bouchard and Shepard. R.J. (1994). Physical activity, fitness and health: the model and key concepts. In C. Bouchard: R.J. Shepard and T. Stephens (eds.) Physicalaclii'ity fitness and health.' International Proceedings and consensus statement. Champaign IL:Human Kinetics Publishers.

DeSpelder. L.A. and Strickland, A.L. (2002).The last dance: encountering death and dying. Montreal: McGraw Hill Higher Education.

Fontane P.E. (1996). Exercise, fitness and feeling well. Amnerican Behavioral SPienii.st, 39(3). 288-305.

Heikkinen R. (1998). The role of physical activity in healthy ageing. World Health Organization Ageing and Health Prommamme. www.google.com retrieved 10/09/2014.

Hurley. B. and Reu (201 1) Ageing, physical actis 1 Ly and disease prevention. Journal of A ge/np Research, 82. 46,

Lonkshin, J. (2011). Physical activity and the ageing process. Hunicinkinetics. coin. Retrieved 09/09/2014

Matteson, M.A (1997) Biolofica7 theories of ageing in geroniological nursing concepts and practice. London: Saunders company.

Mobily. KB. (1987). Leisure. lifestyle and life span. In R.D Macneil & ML league (eds)Ageing and leisure : Li in later lifR Englewood Cliffs, NJ: Prentice Hall.

Mobily, K.E (1997). Leisure. lifestyle and life span. In R.D. Macneil & M.L Teague (eds.)Ageing and leisure: vitality in later life. Englewood Cliffs. NJ: Prentice Hall.

Okuneye R.O., Idowu BE. andDansu. A. (2011). Exercise behaviour as correlates of selected health indicators among nurses in sub-urban area in Lagos, Nigeria. Proceedings of S ICPHER: SD World Congress. 193-202.

Okuneye. R.O. (2013). Human body. human wellness: the perpetual antidotes. LASIJ Inaugural Lecture Series (50" edition). Lagos: Lagos State University.

Owen. N. Healy U.N. Matthews. CE and Dunstan. D.W (2010) Too much sitting: the population health science of sedentary behavior. Exercise Sport Sci Rev38: 105-13.

Pratt. M. Macera. C.A. and Wang G.J. (2000) Higher direct medical costs associated with physical inactivity. Physician and Sports medicine 63- 70.

Rowland T.W (2014). Physical activity and other factors may' delay the ageing process. Athletes clock. Human Kinetics.com. Retrieve 09/09/2014.

Shepard. R..J. (2007). Ageing physical activity and health. USA: Human Kinetics Publishers.

Wang. U. Pratt. M. Macera. C.A. Zheng. Z.J (2004) Physical activity, cardiovascular disease, and medical expenditures in U.S adults. Ann Behav Med. 28, 88-94

Wojte J.C. Proctor. D. N. Singh, M.D., Minson, C.T., Claudio R. Nigg. C.R, Salem, G.G and Skinner, J.S (2010). Exercise and Physical Activity for Older Adults. Engle Wood Cliffs, N.J: Prentice Hall.

World Health Organisation (1 998). The role of physical activities in healthy ageing. ‘ Retrieved 19/09/2014