

ENSURING QUANTITY AND QUALITY OF LIFE FOR EMPLOYEES THROUGH PHYSICAL ACTIVITY AS PREVENTIVE MEDICINE TOOL AGAINST NON-COMMUNICABLE DISEASES IN NIGERIA

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ABSTRACT

Physical activity is one of the effective preventive medicine tools against diseases especially non-communicable diseases (NCDs) such as stroke, diabetes, cancer, arthritis, hypertension, obesity, osteoporosis, among others. The high level of absenteeism, low productivity and high medical cost incurred by employees can be prevented or controlled with workplace physical activity, sport and fitness programmes. Involvement in appropriate regular physical activity will contribute to quantity and quality of life of employees. However, some employees are found being physically inactive due to some challenges such as lack, inadequate, and poor implementation of workplace physical activity and sport programmes and policies; lack or inadequate fitness centres in workplaces; lack or inadequate workplace physical activity and sport programmes, and lack or poor implementation of research findings and recommendations about physical activity, sport and NCDs by employers and employees. Others include lukewarm or negative attitude of workers towards physical activity and sport; workers' ignorance of the benefits of physical activity and sport in relation to NCDs; lack of experts' guidance on the frequency, intensity, time, and type of physical activity for workers; lack, inadequate, inproximity, inaccessibility, and poor condition of physical activity and sport facilities and equipment for workers, and lack or inadequate physical activity and sport experts in workplaces. Based on some of the identified challenges, and in attempt to ensure employees' quantity and quality of life through physical activity, necessary recommendations were made.

Keywords:Quantity, quality, life, physical activity, disease, employee, workplace

INTRODUCTION

In the medical field, emphasis has since been moved from curative medicine to preventive medicine. This is evident in the popular slogan "prevention is better than cure". Physical exercise could potentially contribute to disease prevention (King & Kriska, 1992). One of the preventive medicine tools for NCDs and means of ensuring quantity and quality of life is through regular participation in appropriate physical activity and sport. Physical activity is any force exerted by skeletal muscles that results to energy expenditure above rest (Casperson, Powell & Christenson, 1985). Physical activity involves the broad range of organized, structured, informal forms of exercise, sports, recreation, or hobbies that are not associated with activities as part of one's regular job duties or physical movement (Umeifekwem, 2011). Physical activity according to World Health Organization (WHO) (2006) includes walking or cycling for transport, dance, traditional games and pastimes, gardening and housework, as well as sport or deliberate exercise.

However, the world is witnessing a significant increase of the global burden of non-communicable diseases such as cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases (WHO, 2003). Globally, the most prevalent non-communicable or chronic diseases include heart disease and stroke, cancer, chronic respiratory disease, and diabetes (WHO, 2005; 2008). These and other chronic diseases are the major cause of death (60%) and disability worldwide, taking the lives of over 35 million people in 2005, including many young people and those in middle age (WHO, 2005).

NCDs negatively affect the quantity and quality of life of Nigerians. In this paper, quantity of life is the number of years one spends on earth which commences from birth and terminates at death. Quantity of life is synonymous with longevity, long life and life expectancy. Life expectancy at birth is an indicator and measure of overall quantity of life of people in a society. Life expectancy at birth,

according to United Nations Population Division (2009) refers to the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. The Nigeria's life of expectancy, according to Human Development Report (2011) rose from 51.4 (years) in 2010 to 51.9 (years) in 2011. This shows a slight shift and improvement but much improvement in Nigeria's life expectancy is still desired to meet up with that of developed countries such as United States.

Quality of life should not be confused with the concept of standard living, which is based primarily on income. Instead, standard indicators of the quality of life include not only wealth and employment, but also the built environment, physical and mental health, education, recreation and leisure time, and social belonging (Gregory, Johnston, Pratt, Watts, &Whatmore, 2009). In the context of this paper, quality of life entails living with little or no disease, incurring less medical cost, being productive and making meaningful contributions to better one's life and others in the society. Quality life entails living a healthy life. This requires being healthy in one's physical, mental, and social aspects of life. Physical activity has been consistently associated with enhanced quality of life (Rejeski&Mihalko, 2001). Life ought to be lived in good duration and quality. Duration is easier to measure than quality. But both tend to increase and decrease together. Nigerians' quality of life, like the duration, is far below average (Ogedegbe, 2011). The quantity and quality of life in developing countries like Nigeria is low when compared to developed countries such as United States of America. A healthy lifestyle such as involvement in physical activity contributes to an individual's quantity and quality of life. An individual can experience quantity of life without quality of life, and also quality of life without quantity of life. Both quantity and quality of life of Nigerians are important and physical activity has a role to play in achieving them.

Shephard (1997) stated that physically active workforce tend to report less illness and recover more quickly from the illness they do get, experience less work absence, experience lower staff turnover, be more productive, have fewer industrial injuries, and report higher levels of satisfaction with their work. Physically active employees are less likely to suffer from major health problems, less likely to take sick leave and less likely to have accident at work (Dishman, Oldenburg, O'Neal &Shephard, 1998).

More than 60% of adults and over two-thirds of young people globally are not sufficiently active to protect their health (WHO, 2006) and adults and young people constitute the workforce of any nation. Physical inactivity is now identified as the fourth leading risk factor for global mortality. Physical inactivity levels are rising in many countries with major implications for the prevalence of NCDs and the general health of the population worldwide (WHO, 2010). Physical inactivity is estimated as being the principal cause of approximately 21 - 25% of breast and colon cancer burden, 27% of diabetes, and approximately 30% of ischaemic heart disease burden (WHO, 2009). It is estimated currently that of every 10 deaths, 6 are attributable to non-communicable conditions.

Worksite physical activity and fitness programs provide a mechanism for reaching large numbers of adults (U.S. Department of Health and Human Services, 2010). Employees spend greater part of their time in their workplaces. Hence, workplace is a good place for inculcation of health promotion behaviours such as adherence to physical activity in the workers. Physically active employees are productive and healthy workforce.

In Nigerian government establishments (e.g. university), the age and length of service of workforce ranges from 18 to 65 years for academic staff and 18 to 60 years for non-academic staff. Certain physical activities have been recommended to ensure employees' and retired employees' quality of life during and after active service or while working and quantity of life both while in service and after service or retirement. For adults aged 18–64 years, the recommended physical activity, according to WHO (2010) include leisure time physical activity (for example: walking, dancing, gardening, hiking, swimming), transportation (e.g. walking or cycling), occupational (i.e. work), household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities. For adults aged 65 years and above, the recommended physical activity by WHO (2010) include leisure time physical activity (for example: walking, dancing, gardening, hiking, swimming), transportation (e.g. walking or cycling), occupational (if the individual is still engaged in work), household chores, play,

games, sports or planned exercise, in the context of daily, family, and community activities. With a well-coordinated and supervised workplace physical activity programme, workers can be physically active while in their workplaces, and after work, there living a quantity and quality of life.

NEED AND RELEVANCE OF THE PAPER

The total number of people dying from chronic diseases (NCDs) is double that of all infectious diseases, including HIV and AIDS, tuberculosis, and malaria (WHO, 2005). By 2030, Wild, Roglic, Green, Sicree and King (2004) projected that 366 million people globally will have diabetes, with the greatest relative increases occurring in India, sub-Saharan Africa and the Middle Eastern Crescent. They further estimated that by 2030 in developing countries, the number of people with diabetes who are more than 64 years of age will be more than 82 million.

Cardiovascular disease alone will kill five times as many people as HIV and AIDS in low-and middle-income countries (WHO, 2005), and Nigeria is not an exception. Without action to address the causes, deaths from chronic disease will increase a further 17% between 2005 and 2015. Investment in chronic disease prevention programs is therefore essential for low- and middle-income countries struggling to reduce poverty (WHO, 2005). It was estimated by WHO (2008) that by 2015, Nigeria will lose around 1.5 billion international US dollars as a result of the burden of non-communicable diseases. There is need to do everything possible to prevent these NCDs to avert the loss of Nigeria's human and material resources as predicted or estimated. Physical activity has a significant role to play in the fight against NCDs in Nigeria. The mostly affected are adults and young people who are the productive workforce of the nation and spend most of their time in their workplaces. Due to some environmental factors (e.g. lack or inadequate workplace physical activity policies and programmes, lack or inadequate workplace fitness centres, etc.) and personal behaviours (e.g. employees' negative attitude towards physical activity, and sport; physical inactivity lifestyle, etc.), some employees and retired employees in Nigeria may suffer from cardiovascular diseases, stroke, cancer, high blood pressure, arthritis, among others which will invariably affect their quantity and quality of life. The NCDs can be prevented or controlled through participation in physical activity or sport while in service and after retirement from service. The challenges to employees' physical activity need to be discussed and addressed to ensure their quality and quantity of life during and after service.

LITERATURE EVIDENCE ON EFFECTS OF PHYSICAL ACTIVITY ON PREVENTION OF NCDS

The effects of physical activity in relation to non-communicable diseases include the primary and secondary prevention of chronic diseases such as cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis (Warburton, Nicol&Bredin, 2006). Regular physical activity is associated with a healthier, longer life, and with a lower risk of heart disease, high blood pressure, diabetes, obesity, and some cancers (Eyre et al, 2004). Regular physical activity can prevent or delay the development of high blood pressure, and reduces blood pressure in persons with hypertension (U.S. Department of Health and Human Services, 2002). Participation in regular physical activity reduces the risk of coronary heart disease and stroke, diabetes, hypertension, colon cancer, breast cancer, and depression (WHO, 2010). Regular physical activity reduces the risk of dying prematurely from heart disease and other condition; risk of developing diabetes; risk of developing high blood pressure (U.S. Department of Health and Human Services, 1996), and reduces the risk of developing colon and breast cancer (Vainio&Bianchini, 2002).

Helmrich, Ragland and Paffenbarger (1994), and Warburton, Gledhill, and Quinney (2001) reported that both aerobic and resistance types of exercise are associated with a decrease risk of type 2 diabetes. American Cancer Society (ACS) (2007) posited that physical activity reduces the risk of heart disease and diabetes. Exercise is an effective tool for preventing type 2 diabetes and potential diabetic complication (Pierce, 2008). Routine physical activity, whether as part of a job or as a leisure activity is associated with reductions in the incidence of specific cancers in particular colon and breast cancer (Thune &Furberg, 2001). Being physically active reduces cancer risk. People who participate in moderate to vigorous levels of physical activity have a lower risk of developing colon and breast cancer than those who do not (ACS, 2007). They further suggested that 45 to 60 minutes of intentional

activity may reduce the risk of breast and colon cancer. ACS (2007) maintained that regular physical activity helps protect against cancer in a variety of ways. Expressing the link between physical activity and cancer, ACS (2007) stated that activity can help to reduce overweight and obesity, which are associated with an increased risk of cancers of the colon, breast (in post-menopausal women), endometrium, esophagus, and kidney. Obesity (which physical activity can reduce) increases the risk for cancers of the pancreas, gallbladder, thyroid, ovary, and cervix, as well as multiple myeloma, Hodgkin lymphoma, and aggressive prostate cancer (ACS, 2007). Physically active men and women exhibited a 30% - 40% reduction in the relative risk of colon cancer, and physically active women a 20% - 30% reduction in the relative risk of breast cancer compared with their inactive counterparts (Lee, 2003). The risk and incidence of fractures is reduced among active people (Gregg, Pereira & Caspersen, 2000). Routine physical activity, especially weight-bearing and impact exercise, prevents bone loss associated with aging (Warburton, Nicol & Bredin, 2006).

CHALLENGES FACING EMPLOYEES' WORKSITE PHYSICAL ACTIVITY IN NIGERIA

Workers' physical inactive lifestyle could be attributed to lack, inadequate, and poor implementation of workplace physical activity and sport programme and policies, lack or inadequate fitness centres in workplaces, lack or inadequate workplace physical activity and sport programmes, and lack or poor implementation of research findings and recommendations about physical activity, sport and NCDs by employers and employees. Others include lukewarm or negative attitude of workers towards physical activity and sport, workers' ignorance of the benefits of physical activity and sport in relation to NCDs, lack of experts' guidance on the frequency, intensity, time, and type of physical activity for workers, lack, inadequate, inproximity, inaccessibility, and poor condition of physical activity and sport facilities and equipment for workers, and lack or inadequate physical activity and sport experts in workplaces.

Lack, Inadequate, And Poor Implementation of Workplace Physical Activity and Sport Programmes and Policies

In Nigeria, no smoking, drug use and testing, use of vehicle seat belts and other protective/safety equipment, sexual harassment prevention are some of the workplace health promotion policies. It is one thing to have programmes and policies, another thing is the implementation of the programmes and policies. Physical activity is meant to be part of workplace health promotion programme. Workplace physical activity policies are yet to be fully implemented in Nigerian workplaces. The workers are exposed to a lot of health problems including non-communicable diseases as a result lack, inadequate and poor implementation of workplace physical activity and sport programmes and policies.

Lack or Inadequate Fitness Centres in Workplaces

On-site fitness centres are appropriate avenues for workers to be physically active in their workplaces if properly arranged and managed before and after work or during break time. Only very few employers can boast of providing fitness centres for its workers. The workplace fitness centre with adequate equipment, good orientation, and time can enable the workers utilize it to be physically active. U.S. Department of Health and Human Services (1999) reported that 12% worksites offer indoor areas for exercise and physical fitness activities.

Lack or Inadequate Workplace Physical Activity and Sport Programmes

Physical activity and sport programmes are organized in some sectors such as educational institutions in the form of intramural and extramural sport and leisure or recreational sport programmes. Only few workplaces organize competitions on physical activity and sport for its workers. The sport competition offers the workers though not all the opportunity to be physically active.

Lack or Poor Implementation of Research Findings and Recommendations about Physical Activity, Sport and Ncds by Employers and Employees

Many researches have been conducted on the effects of physical activity and sport on prevention of non-communicable diseases with their findings and recommendations, but the recommendations are

not implemented or partially implemented by both employers and employees. The research findings and recommendations end up in the shelves of libraries.

Lukewarm or Negative Attitude of Workers towards Physical Activity and Sport

Some workers see physical activity as a stressful activity and do not see themselves engaging in physical activities. Some of the workers see participation in physical activities as a waste of time. They do not see engagement in physical activity during leisure hours as worthwhile. Eze (1998) found that most workers had little or no time for recreational activities. Again, Chigbata (2007) reported that academic staff had negative attitude towards recreational involvement.

Workers' Ignorance of the Benefits of Physical Activity and Sport In Relation To Ncds

Sometimes, people fail to do what they supposed to do due to ignorance. Most of the workers are ignorant of the benefits associated with regular participation in appropriate physical activity especially in the prevention of non-communicable diseases. Most of the workers do not know that physical activity helps in the prevention of cardiovascular diseases and other non-communicable diseases.

Lack of Experts' Guidance on the Frequency, Intensity, Time, and Type of Physical Activity for Workers

Most of the workplaces do not have trained physical activity and sport experts who are purposely employed to expose other workers to physical activities. Physical activity and sport experts are trained as part of their job to prescribe the type, frequency, intensity, and duration physical activity for people in order to ensure healthy results. Unfortunately people do not consult experts to prescribe physical activities for them.

Lack, Inadequate, In proximity, Inaccessibility, and Poor Condition of Physical Activity and Sport Facilities and Equipment For Workers

Physical activity and sport facilities and equipment do not exist in most worksites in Nigeria. In some workplaces where the sport facilities are existing, they are not adequate, fully accessible, and in good condition. This is not far from the report of U.S. Department of Health and Human Services(1999) that in America, 10% worksites offer aerobic exercise equipment, and 9% worksites offer strength training equipment, and outdoor facilities, respectively.

Lack or Inadequate Physical Activity and Sport Experts in Workplaces

A physical activity and sport expert instructs, prescribes and supervises appropriate physical activities and exercise to people for keep fit and healthy. Unfortunately most workplaces do not have these physical activity experts who are employed to assist other employees to be physically active.

CONCLUSION

NCDs have been identified as the leading causes of mortality in developing countries such as Nigeria. Quantity and quality of life of Nigerian employees are lowered by NCDs and their quantity and quality of life can equally improve through participation in physical activity and sport. Physical activity is the cheapest medicine for prevention of NCDs and should be employed by employers and employees to avert the negative impacts of physical inactivity.

RECOMMENDATIONS

1. A unified and comprehensive workplace physical activity policies and programmes should be provided and implemented by employers. It should have legislative back-up by the National Assembly. Such policies and programmes may include;
 - a. A day should be mapped out for workers to trek to and from work from at least 1 kilometer to the workplace. This could be achieved by ensuring that the car park is at least 1 kilometer to the workplace.
 - b. Workplaces that have lifters should provide staircases for workers to use sometimes.
 - c. Competitive physical activity and sport programmes should be designed for workers. Sport competitions can be organized in the forms of inter-unit, inter-department, inter-state, inter-local

- government sport competition, among others. Besides, employees should be advised and encouraged to participate in physical activity during leisure.
- d. Physical activity (e.g. cycling, trekking, etc.) allowances should be paid to workers who cycle or trek to places of work.
 - e. Steps should be built at the entrance to every office, with another entrance route for workers who use wheelchairs.
 - f. The architectural design or plan of every workplace should have provisions for physical activity and sport facilities, and the execution of the design must be ensured by workplace physical activity intergovernmental monitoring team.
 - g. A day should be set aside every month as "Physical Activity Day" for all employees and which they must report to work with their sport attire for proper supervision and monitoring of the type, frequency, intensity and duration of the physical activities.
 - h. Fitness centres should be built in workplaces and should be utilized by workers. The fitness centres should be under the control of sport scientists for proper guidance.
 - i. there should be workplace physical activity implementation monitoring team by related intergovernmental ministries such as labour, health, sport, among others.
2. Research findings and recommendations about physical activity and NCDs should be implemented by employers and employees. In addition, more researches in physical activity and sport should equally be sponsored by government and non-governmental agencies.
3. Employees should change their negative attitude towards physical activity and sport. Employees should dedicate part of their time and resources to physical activity and sport. They should be involved as active and not passive participants.
4. Workshops and seminars should be organized to sensitize workers on the benefits of physical activity in relation to prevention of NCDs. Workers should be sponsored to attend conferences and workshops on physical activity that are organized outside their work setting.
5. Accessible, adequate and standard physical activity and sport facilities and equipment should be provided, and in good condition for workers.

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