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EDITORIAL

The Challenge of Physical Inactivity in Modern Times

Physical inactivity is a leading risk factor for noncommunicable diseases (NCDs) globally.[1,2] It confers a 20–30% increase in the risk for cancer, cardiovascular disease, stroke and diabetes.[1] As a risk factor for non-communicable diseases, physical inactivity is surpassed only by smoking, high blood pressure, and a high body mass index.[3] It is the fourth major cause of mortality globally.[4]

The World Health Organization (WHO) defines physical inactivity as failure to accumulate at least 150 minutes of moderate physical activity or 75 minutes of vigorous physical activity or the combination of both intensities per week.[3] Global data reveals that 31% of the world's population do not attain the minimum recommendations for physical activity.[5] A multi-centre study involving 76 countries reports that one in every five adults all over the world is physically inactive.[6] The authors noted further that physical inactivity was more prominent in wealthy and urban nations, and among women and elderly persons.[6] The crude estimate of the prevalence of physical inactivity in Nigeria was reported as 52% with women having a higher prevalence than men.[1] Lee, *et al*[7] provided convincing evidence that 6–10% of all mortalities were attributable to physical inactivity. The percentage was found to be as high as 30% in specific conditions such as ischaemic heart disease.[7] A report from 2007 stated that about 5 million deaths worldwide from NCDs could potentially have been prevented if people were sufficiently active.[8]

Adejumo, *et al.,* in their study on *'Association between Physical Inactivity and Metabolic Syndrome in South West, Nigeria'* featured in this current edition of the West African Journal of Medicine, reported the prevalence of physical inactivity in South West Nigeria as 24.9%. Their study demonstrated that physical inactivity was associated with female gender, being resident in an urban community, and having metabolic syndrome. Right from about the mid- 20th century, the physical and socioeconomic environment in which people all over the world live has been undergoing rapid change especially in the areas of transportation, communication, and technology, including gadgets for the home and workplace.[9] All these have reduced the need for physical activity considerably.[9] Physical activity is protective in the prevention and management of NCDs including cardiovascular disease, diabetes, and cancer,[10] and is very beneficial for mental health while also slowing down the onset of dementia.[11,12] Overall, it contributes significantly to the maintenance of healthy body weight and general wellbeing of the individual.[10] "Physical activity is any bodily movement produced by skeletal muscles that requires energy expenditure."[13] The intensity of physical activity varies with tasks such work, household chores, transportation, exercise or sporting activities.[1]

Sedentary behaviour, which literally means "to sit", includes sitting in the place of work, at home, while commuting and even during leisure.[14] It includes reading, watching television, using the computer, video gaming, and driving vehicles, etc.[15] Sedentary behaviour is similar to physical inactivity but not quite the same.[9] Physical inactivity simply means not doing enough activity physically, that is, not meeting the standard requirements for physical activity while being 'sedentary' means sitting or lying down for prolonged periods.[9] Thus, an individual can be physically active provided they meet the requirements and yet sedentary if they spend a significant part of their day sitting or lying down at home, at work, for study, for travel or even during their leisure time.[9] Sedentary behaviour similarly increases the risk of non-communicable diseases.[9] The risk of premature death and heart disease increased by 12–13% in persons who sat for six to eight hours per day, and by a sobering 20% in people who sat for more than eight hours per day, according to a recent multinational study involving more than 100,000 participants in 21 nations.[16] Currently, there are no global statistics on sedentary behaviour.[10] Technological innovations, the increasingly sedentary nature of jobs and the use of motorised transportation are rapidly promoting physical inactivity and increased sedentary behaviour all over the world.[10]

Physical activity is determined by the sociodemographic characteristics – such as age, sex, ethnicity, education and level of income – of the individual and the environment in which they live.[17] Increasing urbanisation with its attendant consequences is responsible for a number of environmental factors which hinder individuals from participating in physical activities. These factors include violence, high-density traffic, air pollution, lack of sidewalks, parks, and sports/recreation facilities.[18] Current research indicates it is not just sufficient to meet basic requirements recommended by health guidelines in order to reduce cardio-vascular risk.[19] The health hazards of physical inactivity and sedentary behaviour must be addressed independently in order to fully mitigate their consequent adverse effects.[19] For children and adolescents, physical activity can constitute part of their recreation and leisure, physical

education, transportation or even household chores.[10] It is critical to provide all children and adolescents with safe and adequate opportunities and encourage participation in physical activities that are suitable for their age and ability. Children and adolescents are required to participate in 60 minutes of moderate-to-vigorous intensity physical activity per day, all through the week.[10] For adults, physical activity can be a part of recreation and leisure, work or household chores. In order to obtain significant health benefits, it is recommended that all adults undertake regular physical activity of at least 150 to 300 minutes of moderate-intensity aerobic physical activity all through the week or do at least 75 to 150 minutes of vigorous-intensity aerobic physical activity weekly.[10]

The benefits of physical exercise are enormous. Physical activity is associated with lower risk for all-cause mortality, stroke, cancer, and type-2 diabetes.[10] It prevents weight gain, reduces symptoms of depression and anxiety, improves cognition and overall brain function. Furthermore, there is substantial evidence that both acute bouts and regular physical activity improve sleep and health-related quality of life outcomes in adults, and lower the risk of high blood pressure.[10] Therefore, it is important for individuals to strive to live by the maxim, *"Move more, sit less."*[16,20] The authorities and relevant stakeholders must put in place appropriate policies, strategies and intensified public health education aimed at assisting individuals in making more intelligent choices regarding their way of life and levels of physical exercise. By doing this, illnesses and disabilities associated with physical inactivity and sedentary lifestyle can be prevented, hence lowering the prevalence of many non-communicable diseases.

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