

Domesticating Global Guidelines on Physical Activity for Healthy Lifestyle of Nigerian Older Adults and Their Family Caregivers: Implications for Social Workers

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Abstract

Inactive lifestyle has been identified as one of the risk factors for mortality and increase health related issues among older adults. As one grows older, maintaining healthy lifestyle through physical activity is necessary in order to improve general wellbeing. Thus, this paper discussed the need to domesticate global guidelines on physical activity for healthy lifestyle as recommended by World Health Organisation. The paper equally discussed some countries that have responded to the guidelines and the benefits accrued from it. Descriptive research design was adopted in this study and data were collected through secondary sources. Ecological model provided the theoretical foundation for the study. The paper concludes that domesticating the guidelines for physical activity in Nigeria will go a long way in keeping older adults and their family care-givers fit, enhance their wellbeing and life satisfaction. Social workers should through advocacy and lobbying make necessary responsive interventions.

Keywords: Family caregivers, Global guidelines, Healthy lifestyle, Older adults, Physical activity, Social workers.

Introduction

Physical activity is very essential to economic, social, physical and mental health of every individual (National Institute on Aging, 2010). Health is wealth and everybody appreciates the process of healthy living; hence regular moderate physical activity remains one of the viable measures through which healthy living could be attained (Omolayo, Olawa & Omole, 2013). Certainly, maintaining active lifestyle is very crucial as many countries of the world currently have to grapple with upsurge in population of older adults. Therefore, health experts have recommended that maintaining regular active lifestyle will not only help older adults reverse some symptoms of ageing, but also ensure healthy living as well as actively integrated in all facets of communal life (Powell, Shahabi & Thoresen, 2003; Robinson, Smith & Segal, 2016). In the same vein, Olubayo-Fatiregun, Ayodele and Olorunisola (2014) aver that regular physical activities helps to reduce some psychological symptoms such as anxiety and depression.

According to WHO (2011) inactive lifestyle is among the leading risk factor for mortality across the globe and is responsible for about 3.2 million deaths each year; meanwhile, 2.6 million of these deaths occur in developing countries such as Nigeria. Inactive lifestyle is also seen as a major threat to health of every individual (Oyeyemi & Adeyemi, 2013; Oyeyemi, Oyeyemi, Jidda & Babagana, 2013). For instance, Alzheimer Disease International (2009) report that 35.6 million people estimated to be living with dementia as a result of physical inactivity; and this figure is set to increase to 65.7 million by 2030 and 115.4 million by 2050. Equally, prevalence of overweight is on the rapid increase among Nigerians, most of which result from sedentary lifestyle (Chukwumah, Azodo, Adeghe & Enabulele, 2013; Sabageh & Ojofeitimi, 2013). Physical inactivity is also seen as a major cause of non-communicable diseases (NCDs) like cancer, heart disease, stroke, and type 2 diabetes; meanwhile these diseases accounts for about 27% of all mortalities (Lee, Shiroma, Lobelo, Puska, Blair & Katzmarzyk, 2012; WHO, 2010). This is worrisome and requires proactive intervention measures from Nigerian government to ensure that global guidelines on physical activity are domesticated. This will to a great extent enables older adults and their caregivers maintain healthy lifestyle and equally ensure family survival especially in the wake of ageing population.

Ageing population is a current phenomenon undergoing experiences across the globe (Bélanger, Ahmed, Vafaei, Curcio, Philips & Zunzunegui, 2016). It is equally a crucial issue of

discussion in Nigeria because the Nigerian ageing population is currently undergoing what Palloni and cohort described as “silent aging process” (Palloni, Peláez & Wong, 2006); which implies swift declines in fertility and infant mortality, as well as a continuing increase in life expectancy (Abdelmoneium & Alharahsheh, 2016). In the views of Joubert and Bradshaw (2006), Nigeria holds the highest number of people who are 60 years and above in Africa. The report of United Nations (2012) indicates that population of Nigerian who are 60 years and above was 8.8 million in 2012; meanwhile this number tends to increase to 28 million in 2050. This implies that in few years to come, the proportion of older adults to be cared for by the family caregivers will increase (Okoye, 2012). Hence, maintaining active and healthy lifestyle behaviours are pivotal in order to achieve desirable health outcome (Umeifekwem & Onyechi, 2014). Therefore, domesticating global guidelines on physical activities in Nigeria will to a large extent ensure active lifestyle of older adults and their caregivers.

The global recommendations on physical activity for health was developed by WHO in the year 2010 with the aim to provide guidance on the dose-response relationship between physical activity and health benefits [i.e. the frequency, duration, intensity, type and total amount of physical activity needed for health enhancement and prevention of non-communicable diseases] (WHO, 2010). The guidelines include recommendation for children and youths (5–17 years old), adults (18–64 years old) older adults (65 years old and above). Hitherto, many developed countries like Russia, United State of America, Austria etc. have adopted the WHO guidelines on physical activity in order to improve public health and to put some checks on some health-related issues emanated from sedentary lifestyle (Expert Committee of the Russian Scientific Society of Cardiology, 2011; National Physical Activity Plan, 2010; Titze, Ring-Dimitriou, Schober et al., 2010). Nevertheless, this is not so in many developing countries like Nigeria in spite the felt impacts across the globe and life course. Despite formulating policy on national health promotion, there is no legislation compelling the Nigerian Government to reduce or combat the scourge of NCDs through promotion of physical activity (Khan, 2012b). In the same vein, Akinroye, Oyeyemi, Odukoya, et al. (2014) aver that there is no data on the patterns and domains of physical activity among Nigerians. Data that compares prevalence rate of physical activity are available in some African countries such as Mauritania, Swaziland, South Africa, Burkina Faso, Malawi, Ghana, Mozambique, Malawi, Mali and Mauritania but none of such data exist for Nigeria (Akinroye et al., 2014; Guthold, Louazani, Riley, et al., 2011; Guthold, Ono, Strong, Chatterji & Morabia, 2008). The lackluster attitudes of Nigerian government to combat NCDs through physical activity is not palatable to the country’s socio-economic and health course; in view of this, the current paper addressed the following questions: a) What is the adoption rate of guidelines on physical activity across the globe? b) What are the benefits associated with physical activity? c) What is the implication of this study to social work practice in Nigeria?

Overview of global guidelines on physical activity for health for older adults and families

The global guidelines on physical activity were developed for the following reasons: nonexistence of national guidelines on physical activity for health especially in low and middle-income countries; perceived significance of physical activity on public health; finally, global mandates for the work of WHO to promote physical activity in order to prevent NCDs, and also making evident the need for the development of global recommendations that address the links between the frequency, duration, intensity, type and total amount of physical activity needed for the prevention of NCDs (WHO, 2010). The guidelines came on board in June, 2010 after due consideration by the Guidelines Review Committee (GRC) and after an extensive 3-year preparatory process and meetings by expert group. The framework for the guidelines was birthed from the resolution of 57th and 61st World Health Assembly in May, 2004 and 2008 respectively (WHO, 2004; WHO, 2008). The action plan on 2008 resolution recommended member states to:

- i. Develop and implement national guidelines on physical activity for health.
- ii. Introduce transport policies that promote active and safe methods of travelling to and from schools and workplaces, such as walking or cycling;
- iii. Ensure that physical environments support safe active commuting and create space for recreational activity.

In the year 2009, the first meeting of the expert group was held in Mexico to define the scope, content and target audience of the guidelines. Equally, decisions were made to adopt USA evidence to develop the global guidelines (WHO, 2010). The guidelines group noted that for improvement in cardio respiratory and muscular fitness, bone and functional health, reduce the risk of NCDs, depression and cognitive decline:

1. adults aged 65 years and above should engage in at least 150 minutes of moderate-intensity aerobic physical activity five days of the week or engage in at least 75 minutes of vigorous-intensity aerobic physical activity daily an equivalent combination of moderate- and vigorous-intensity activity.
2. Aerobic activity should be performed in bouts of at least 10 minutes duration.
3. For additional health benefits, adults aged 65 years and above should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate-and vigorous-intensity activity.
4. Adults of this age group, with poor mobility, should perform physical activity to enhance balance and prevent falls on 3 or more days per week.
5. Muscle-strengthening activities should be done involving major muscle groups, on 2 or more days a week.
6. When adults of this age group cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow.

Exclusively, some of the recommended physical activity for health for older adults 65 years and above and their family members include leisure time physical activity, 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. These guidelines are very essential to every healthy older adults and their family members as well as other older adults with health related issues such as chronic NCDs. However, older adults with specific ill health, such as cardiovascular disease and diabetes, should consider taking extra preventive measure by seeking medical advice before setting to achieve the recommended levels of physical activity for older adults. The recommendations can also be applicable to older adults with disabilities although there is need for adjustment to suit and be beneficial for each individual, on the premise of their exercise capacity and specific health risks or limitations (*Excerpt from World Health Organization, 2010 on Global recommendations on physical activity for health*).

Theoretical orientation

Social-ecological model of Kenneth McLeroy (1988) and Daniel Stokols (1992) provided the theoretical foundation for this paper. The model focused on individuals' steady reciprocal relationship with their environments in which they seek to affect one another. Social-ecological model are made up of several components which include the individual, social environment, physical environment and policy components; hence these components influence the likelihood of individuals engaging in active life style (Victorian Curriculum and Assessment Authority, 2010). Physical activity could be promoted among older adults and their care-givers through supportive environments that encourage its involvement (Simons-Morton, Simons-Morton, Parcel & Bunker, 1988; Stokols, 1992). This could be in form of policy, availability of facilities, instructors etc. According to World Health Organization (1986) health behaviours through active lifestyle could be improved when there are enabling environments and policies that support healthy choices; meanwhile individuals are stimulated to make those choices. Seeking to motivate older adults and their families to make healthy choices when environments are not supportive will be ineffective. The social-ecological model therefore acknowledges that it takes a combination of both individual level and environmental/policy level interventions to achieve substantial health behavioural changes.

Adoption of guidelines on physical activity for health across the globe

The global guidelines are structured to suit all individuals despite the gender, race, country, ethnicity or income level. However, countries are obliged to structure the guidelines to suit their communication pattern, mode of disseminating information and messages in various population

groups in order to achieve desired purpose. In the same vein, countries are to modify the guidelines to adapt into culturally accepted ways for country level putting some checks on some factors such as the physical activity domain [leisure time, occupational or transportation physical activity] (WHO, 2010). This has informed the choice of some countries across the globe to adopt the global guidelines on physical activity for health as national document to beef up their health policies.

In Republic of Ireland, the national guidelines on physical activity stipulate that older adults and other family members should engage in 150 minutes of moderately-intense activity each week to achieve both physical and cognitive health benefits (Department of Health and Children/Health Service Executive, 2009). This is in conformity with the global guidelines on physical activity. Meanwhile, Murtagh, Murphy, Murphy, Woods and Lane (2014) revealed that about 37% of older adults achieve the current guidelines.

In Canada, more than 20 million people are heading for more health problems and shorter lives as a result of inactive lifestyle (Cousin, 2005). For this reason, the Canadian national guidelines on physical activity were published in 2011 as a guard against mortality rate (Tremblay, Warburton, Janssen, et al, 2011). The Canadian national guidelines stipulate that older adults and other members of the family should accumulate 150 minutes of moderate- to vigorous- intense aerobic physical activity each week, in bout of 10 minutes or more.

In America, the U.S. Department of Health and Human Services (2008) reports that older Americans will increase in near future; also, poor dietary habits has greatly contributed to obesity among older Americans and their family members resulting in spending substantive bill on medication (Centers for Disease Control and Prevention [CDC], 2003). In response to these trends, the U.S. Department of Health and Human Services published the 2008 Physical Activity Guidelines. These guidelines suggest 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity at least two days of the week; 1 hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity at least two days of the week; a combination of moderate- and vigorous-intensity aerobic activity equivalent to the recommendations above, plus muscle-strengthening activities on at least two days of the week.

In Germany, the “National Recommendations for Physical Activity and Physical Activity Promotion” were initiated in 2014 (Pfeifer, Banzer, Ferrari, et al., 2016). These recommendations are in line with WHO’s Global Recommendations on Physical Activity for Health (150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity), but in addition, strength and balance exercises are recommended in order to reduce risk of falls (Ministry of Health, 2014).

Also, in other German-speaking countries like Austria, the recommendations for health-effective physical activity were published in 2012 (Mitchell et al., 2012). In Switzerland also, the corresponding recommendations for physical activity were issued in 2013 (Xu, Wen & Rissel, 2015). The recommended guidelines on physical activities for these countries are also in line with the stipulation of World Health Organization.

Croatia, Poland and Portugal are currently on the process of developing national guidelines on physical activity for health which will cut across all age groups (Eurostat, 2015; Kahlmeier, Wijnhoven, Alpiger et al., 2015; Ministry of Sport and Tourism, 2015). These guidelines were to be developed from the WHO Global recommendations on physical activity for health; while Portugal’s national guidelines were to be developed from 2010 WHO Global recommendations on physical activity for health (WHO, 2010) and the American College of Sports Medicine (ACSM) guidelines for exercise (American College of Sports Medicine, 2011). However, the Euro-barometer survey results from 2014 indicated that 9% and 14% of adults in Portugal engaged in vigorous- and moderate-intensity physical activity at least 4 days respectively. The 2010 intercountry comparison on physical activity from WHO Global Health Observatory (GHO) show that 62.7% of Portuguese adults met the WHO recommended physical activity levels for health (WHO, 2011).

Table 1: Summary of countries' adoption of global guidelines on physical activity

Countries	Publication year	Duration		Frequency	Bouts	Further recommendations
		Moderate intensity	Vigorous intensity			Additional health benefits
WHO (World Health Organization, 2010)	2010	150 minutes/week, or be as physically active as abilities and conditions allow	75 minutes/Week	Throughout the week	At least 10 minutes	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
Austria (Mitchell et al., 2012)	2012	150 minutes/week Be as active as condition allows if minimum recommendations cannot be met	75 minutes/Week	On most days of the week	At least 10 minutes	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
Canada (Tremblay et al., 2011)	2011	150 min/week			At least 10 min	Additional health effects with more activity.
Croatia (Eurostat, 2015)	Ongoing (to be implemented in 2018)	150 minutes/week	75 minutes/Week	Throughout the week	At least 10 min	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
Germany (Pfeifer et al., 2016)	2014	150 minutes/week	75 minutes/Week	Throughout the week	At least 10 min	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
Poland (Ministry of Sport and Tourism, 2015)	Ongoing (to be introduced in 2020)	150 minutes/week	75 minutes/Week	Throughout the week	At least 10 min	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
Portugal (Kahlmeier, et al., 2015)	Ongoing	150 minutes/week, or be as physically active as abilities and conditions allow	75 minutes/Week	Throughout the week	At least 10 minutes	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
Republic of Ireland	2009	30 minutes daily or 150 minutes/week Any amount of physical activity gains some health benefits		5 days/week	At least 10 minutes	
Switzerland (Xu et al., 2015)	2013	150 minutes/week	75 minutes/Week	Throughout the week	At least 10 minutes	300 minutes moderate intensity/week, 150 minutes vigorous intensity/week, or combination
USA (U.S. Department of Health and Human Services, 2008)	2008	150 minutes/week, or be as physically active as abilities and conditions allow	75 minutes/Week	Throughout the week	At least 10 min	300 min moderate intensity/week, 150 min vigorous intensity/week, or combination

Source: Researchers' compilation

South Africa is undergoing increase in the occurrence of NCDs (Phaswana-Mafuya, Peltzer, Chirinda, Musekiwa & Kose, 2013). This might be an outcome of poor engagement in physical activities. For this reason, the importance of promoting physical activity in populations is reflected in the South Africa National Strategic Plan for the Prevention and Control of non-communicable diseases, which targets a 10% reduction in the prevalence of inactivity by 2020 (Shisana, Labadarios, Rehle et al., 2013). Meanwhile, the South African National Department of Health in alignment with the WHO recommendations recommends that the older adults with stable medical condition should engage in low intensity exercise for at least 30 min a day, at least 3 days a week (South African National Department of Health, 2000). Those who are too frail to stand are encouraged to engage in arm rowing and other rhythmic upper body movements for the same recommended period of time (Aro, Agbo & Omole, 2018).

In Nigeria, the government has no goal of reducing physical inactivity by 10% the same way United State initiated Healthy People 2020 policy (a 10-year health agenda released by the US Department of Health and Human services in 2010), which identifies physical activity as a leading health indicator (Khan, 2012b). According to Akinroye, Oyeyemi, Odukoya, et al. (2014) there are dearth in studies that provide estimates on the proportion of Nigerian meeting the health-related recommended guidelines for sufficient levels of physical activity; there is no data on the patterns and domains of physical activity among Nigerians. However, in a study by Aweto, Aiyegbusi, Ugonabo and Adeyemo (2016) revealed that individuals especially the unhealthy individuals are expected to complete 6 weeks or 3week, 30min moderate intensity aerobic exercise on a cycle ergo meter provided by a physiotherapist. Although majority of the physiotherapists in Nigeria (97%) saw the necessity for physical activity recommendation guideline in Nigeria, only 43% were aware of global recommendation guideline on physical activity (Aweto, Oligbo, Fapojuwo & Olawale, 2013).

The benefits of physical activity for older adults and families

According to WHO (2016) physical activity is an important foundation of health throughout life course and one of the measures through which human function is maintained. Over the years, there have been existing evidences of the benefits of engaging in regular physical activity by individuals (Park, Elavsky & Koo, 2014). These according to Biddle (2003) include economic, social, psychological and physiological benefits. For instance, Professional Associations for Physical Activity (2010) reports that physical activity is to a great extent instrumental to proper functioning of many parts of the body including the heart, skeletal muscles, bones, blood (cholesterol levels), the immune system and the nervous system. In the same vein, physical activity promotes health functioning, reduces and prevents many non-communicable diseases and equally helps in managing chronic disease such as osteoporosis, coronary artery disease, non-insulin-dependent diabetes mellitus, obesity, certain form of cancers and disability (Christ & Ross, 2010; WHO, 2010; Yeom, Jung & Mona, 2011).

Furthermore, physical activity has been linked with psychological as well as economic well-being of individuals across the globe. Regular physical activity is associated with improved mental health such as depression or anxiety symptoms, anger, and stress. It reduces cognitive problem and dementia (Brown, Bauman, Bull & Burton, 2012; Collaborating for Health, 2011). According to Chodzko-Zajko, Proctor, Fiatarone Singh et al. (2009) regular physical activity leads to improved cognitive performance in older adults, especially for executive functioning. Physical activity equally helps to improve sound mind and memory (Robinson, Smith & Segal, 2016); and improve the mood (Elward& Larson, 2009).

Sedentary behaviour is a leading cause of negative health outcome ensuing significant economic consequences especially to health care system across the globe (Olubayo-Fatiregun, Ayodele & Olorunisola, 2014). Hence, regular engagement in physical activity will to a large extent reduce the cost of medical or hospital services, ambulance services, rehabilitation and pharmaceutical services. For instance, vander Ploeg, Streppel, Van der Beek et al (2007) opined that many patients that always visit primary care centres suffer from health challenges that could be prevented and thereby save cost if they are physically active.

Finally, Age Concern Northern Ireland (2013) reports that physical activity empowers individuals, enhanced social integration and formation of new friendships. It also promotes positive and active image of older people with widening of social networks. It serves as opportunity for

relaxation, enjoyment, and a chance to let off steam and have fun. The WHO (2016) report indicates that among older people, physical activity helps them to maintain health, agility and functional independence and to enhance social skills through social participation. Older adults who participate in regular physical activity are bound to reduced risk of moderate and severe functional limitations and role limitations (WHO, 2010).

Domesticating global guidelines on physical activity in Nigeria and social work implication

Social work is a practice-based profession and an academic discipline that promotes social change and development, social cohesion, and the empowerment and liberation of people. Principles of social justice, human rights, collective responsibility, and respect for diversities are central to social work. Underpinned by theories of social work, social sciences, humanities and indigenous knowledge, social work engages people and structures to address life challenges and enhance wellbeing (International Association of School of Social Work [IASSW] & International Federation of Social Work [IFSW], 2014). In social work practices, one of the important areas of practice is social gerontology (older adults). The professionals work directly with older adults to deal with the factors that create or exacerbate their wellbeing. In the 21st century, social workers and other human service professionals strive to implement a broad range of health promotion programmes in response to the growing older population and the inevitable increase in the health care needs of this population (Fulmer, 2005). Therefore, in Nigeria, social workers can uniquely promote healthy lifestyle and wellness of older adults and their family members on the programmatic, organisational, and community- advocacy levels. With collaboration of other human service professionals such as physicians, nurses, psychologist, social workers can advocate and lobby for domestication of global recommendation guidelines on physical activity for health. They should equally sensitize the public regarding the numerous health benefits accrue from active lifestyle and encourage older adults to achieve the recommendation as stipulated.

Conclusion

This study focused on the need for domesticating global guidelines on physical activity for healthy lifestyle of Nigerian older adults and the family caregivers and the implications for social work practice in Nigeria. The study revealed that maintaining regular physical activity is an important foundation for health throughout life course and one of the measures through which human function is maintained. For instance, physical activity helps in proper functioning of many parts of the body, prevents many non-communicable diseases, helps in managing chronic diseases and equally linked with psychological as well as economic well-being of individuals. The study also revealed that many countries across the globe have adopted the global guidelines. Some of these countries include Republic of Ireland, Canada, USA, Germany, Austria, Switzerland. Some countries like Croatia, Poland and Portugal are currently on the process of developing national guidelines on physical activity for health. The study also found that South Africa in alignment with the WHO recommendations recommends that the older adults with stable medical condition should engage in low intensity exercise for at least 30 min a day, at least 3 days a week while Nigerian government has no goal of reducing physical inactivity by 10% the same way other developed countries are doing. Although, unhealthy individuals are expected to complete 6 weeks or 3-week, 30 min moderate intensity aerobic exercise as prescribed by a physiotherapist. Based on these findings, this study therefore recommends the following:

1. Nigerian government through Public Health Department should work towards domesticating global recommendation guidelines on physical activity for health to enhance healthy lifestyle of Nigerian older adults and their family care-givers.
2. Though public enlightenment, social workers should educate the masses the importance of living active through participation in regular physical activity.

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