



THE MODERATOR EFFECT OF INCOME AND SOCIAL STATUS, SOCIAL CONNECTEDNESS AND PHYSICAL ACTIVITY ON HEALTHY AGEING AMONGST OLDER ADULTS IN IBADAN METROPOLIS, NIGERIA

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ABSTRACT

Old age is a developmental period of declining health and functioning. Developmental psychologists argued that living actively and successfully after the age of 65 implies healthy lifestyle habits that start as early as possible in life. Thus, it becomes imperative to examine the factors that could predict healthy ageing. This study investigated the moderating influence of income and social status, social connectedness and physical activity on healthy ageing among older adults. A total sample of 48 males and 39 females (87 subjects) between 65 and 80 years who participated in the study were volunteers recruited from institutions such as community centers, welfare centers, and church programmes for adults in Ibadan metropolis. Descriptive research design of correlation type was used in the study. Four standardized scales were administered to the respondents and the data obtained was analyzed using Pearson Product Moment Correlation (PPMC) and Multiple Regression analysis. Three research questions were raised and answered in the study. The result showed that healthy ageing significantly correlated with income and social status ($r = .783$; $p < .05$), social connectedness ($r = .693$; $p < .05$) and physical activity ($r = .863$; $p < .05$), independent variables (income and social status, social connectedness and physical activity) have significant effect on the healthy ageing of older adults ($R = .711$ & $R^2 = .674$) which means that the independent variables accounted for 67.4% in the prediction of healthy ageing. Each of the independent variables made a significant contribution to the prediction of healthy ageing and in term of magnitude of contribution, social connectedness made the most significant contribution (Beta = .663; $t = .856$; $p < 0.05$) to the prediction while other variables made significant contributions in the following order: income and social status (Beta = .283; $t = .503$; $p < 0.05$) and physical activity (Beta = .154; $t = .375$; $p < 0.05$). Based on the finding of the study, it was recommended that older people should maintain social connection with family and friends. Government should adopt measures that could improve the economy of the country.

Keywords: Healthy ageing, older people, income and social status, social connectedness, physical activity

INTRODUCTION

Ageing, which is one of the major features of transition to senescence, is a global trend all over the world. It is a significant component of all human societies which reflects the occurrence of biological changes, cultural and societal conventions. According to United Nations (2011), ageing is one of the most important demographic megatrends with implications for all aspects of the societies. Old age according to Martin and Erik (1999) begins at 65 years of life and is a sensitive developmental period in the contemporary society. Life stages of human development are marked with notable achievements and each of the stages are affected by the previous stage while additionally affecting the next stage. Hence, preparation for senescence is done during adulthood. Developmental psychologists noted that during late adulthood, changes are inevitable and happen to everyone regardless of race, ethnicity or culture.

Falaye (2014) asserts that ageing brings a decline in physical areas such as recuperative capacity of the person, resistance to infection, declined muscular strength and greater susceptibility to chronic diseases such as hypertension, arthritis and cancer. Chronic



diseases accounted for an enormous human and economic burden and the prevalence increases with age especially among older people in vulnerable communities (Hamrik, Sigmundova, Kalman, Pavelka and Sigmund, 2013). Moreover, Public Health Agency of Canada (2005) documented that chronic diseases in old age are responsible for 67% of total direct costs in healthcare and 60% of total indirect costs (\$52 billion) is as a result of early death and loss of productivity.

Older people are often ignored most especially in the aspect of health and this has made them suffer chronic diseases and ill health which often lead to their early death (Craig, Russell, Cameron and Bauman, 2004). In 2010, 524 million people were estimated as aged 65 and above which is the 8% of the world's population and by 2050, this number is expected to nearly triple to about 1.5 billion representing 16% of the world's population (National Institutes of Health, 2011). Between 2010 and 2050, the number of older people in less developed countries is projected to increase more than 25 percent, compared with a 71 percent increase in developed countries (National Institute on Ageing, 2011). Hence, the expected increase in the numbers of older adults would lead to increased demands on health and welfare services.

Holmes and Rossall (2008) estimated that by 2018, there would be nearly over 4 million older people with major hearing problems, up to a third of a million people aged 75+ with dual sensory loss, a third of a million older people with difficulty bathing, nearly a million older people with dementia, over a million people aged 75+ who would find it very difficult to get to their local hospital, 7 million older people who would not be able to walk up one flight of stairs without resting and 1.5 million older people who would not be able to see well enough to recognize a friend across the road). World Health Organization (2010) submitted that 20-25 percent of older adults meet criteria for some form of psychological disorder. An estimated 15 million older adults would experience mental health problems by the year 2030 (Department of Health, 2013). Therefore, there is the need to adopt a proactive approach to healthy and active ageing as a result of this staggering revelation.

Senior citizens make notable contribution to the richness of life and to the economy of the society. They supply a wealth of experience, knowledge, continuity, support and love to younger generations. The unpaid work of older people to their families and communities cannot be over emphasized. In recent times, most new families depend on the care and services of the older people in the family rather than employing the service of nanny and other caregivers most especially in taking care of younger children. About 69% of older people render one or more types of assistance to spouses, children, grandchildren, friends and neighbours (National Advisory Council on Ageing, 2001). They are also actively involved in the voluntary sector most especially when they found structures for volunteering such as in the intergenerational settings.

Healthy ageing is an indicator of social and economic progress in the society. This is because as older people remain fit and healthy, they continue to contribute to economic, social and family life during these active years and this could bring more experience (UNECE, 2009). According to World Health Organization (2002), collective approach to healthy ageing of older people would determine how we, our children and grand children would experience life in later years. Life expectancy is on the increase and this has led to more demand on the physical, cognitive and emotional needs of older adults. Considering the statistics of older people in the society; the fact that they are more prone to ill health and reflecting on their invaluable contributions to the society; it becomes mandatory to examine influential variables in the process of healthy ageing. The finding of this study would provide valid evidence that should



benefit developmental psychologists, social workers, health providers and stakeholders to design and adopt health policies that could promote healthy ageing.

Ageing per se is simply the fact of existence through time; the phenomenon of becoming older (Falaye, 2014). It is an accumulation of changes over the life course that increases feebleness. Falaye (2014) opined that ageing is of two dimensions; declination and expansion. For instance, reaction to event slows down with age (declination) while knowledge of world events and wisdom expands (expansion). Healthy ageing entails that older adults maintain levels of daily function and vitality that allow them to participate in the physical and social endeavours occurring around them. Healthy ageing has been defined by the World Health Organization (2012) as a state of complete physical, mental and social well-being and as a positive resource for everyday living, not the objective of living or the absence of disease. According to Health Canada (2002), healthy ageing is a lifelong process of optimizing opportunities for improving and preserving health, physical, social and mental wellness, independence, quality of life and enhancing successful life-course transitions.

In view of the inestimable impact of older people in the society and the benefit of healthy ageing to the economic development of the nation, stakeholders of some countries of the world had given cognizance to enhancing and promoting healthy ageing through project such as:

- Canada National Framework on Ageing (1998)
- New Zealand Positive Ageing Strategy (2001)
- WHO's Active Ageing – A Policy Framework (2002)
- The Madrid International Plan of Action on Ageing (2002)
- National Strategy for an Ageing Australia (2003)
- Generations Together: The Western Australian Active Ageing Strategy (2004)
- England Opportunity Age: Meeting the challenges of ageing in the 21st century (2005)
- Netherlands Policy for Older Persons in the Perspective of an Ageing Population (2006)
- Ageing Well in British Columbia (2006)
- USA Administration on Ageing Strategic Action Plan 2007 -12 (2007)
- All Our Futures: Planning for a Scotland with an Ageing Population (2007)
- Strategy for Older People in Wales 2008-2013: Living Longer, Living Better (2008)
- The European Innovation Partnership on Active and Healthy Ageing (2010)
- European Year for Active Ageing and Solidarity between Generations (2012)

This study is anchored on Activity theory of ageing developed by Havighurst (1961) and Social ecological model by Bronfenbrenner (1979). Activity theory is one of psychosocial theories which describe how humans develop in late adulthood. The theory submitted that optimal ageing occurs when older people participate in physical activity, pursuits and maintain social interactions (Richard, 2006). Activity theory assumes a positive relationship between activity and quality of life (Loue and Sajatovic 2008). The activity theory of ageing concluded that those who remain actively engaged in the society appear to be happier, more satisfied and better adjusted. The theory provides a relevant framework for this study because it allows the consideration of the impact of participation in physical activity and social interactions on healthy ageing.

Social ecological model by Bronfenbrenner (1979) considered healthy ageing based on personal and interpersonal influences. Personal influence such as self-esteem, personality type and self-achievement; and interpersonal influence which includes supportive home environment, socio-economic status, and community influence play significant roles in healthy



ageing. The theory provides a useful framework for this study because at the personal level, older adults' choices to be physically active on regular basis could influence healthy ageing. Also, at the interpersonal level, income and social status; and social support both at family and community levels could predict healthy ageing.

World Health Organization (2002) identified gender, culture, economic, personal, health, behavioural, physical environment and social factors as determinants of healthy ageing. In this study, the moderating variables examined are income and social status, social connectedness and physical activity. Income and social status are both an economic and social factors which entails occupation, education, income, wealth, place of residence and social standing or class. People with lower income and social status may have fewer resources available to them, which would limit their choices and actions or willingness to subscribe to better health.

For older people, the relationship between health, income and social status is of importance because of the increasing life expectancies, increasing fragility of many pension and social security systems throughout the world, and declines in extended families and traditional systems of support for the aged people (Frankes, 2003). Micronutrients, such as calcium, vitamin D, minerals, and protein are necessary for the maintenance of good health and functional autonomy in aged people. For instance, insufficient calcium and vitamin D is associated with a loss of bone density in older age. However, the intake of these nutrients is sensitive to income. Moreover, obesity which apart from genetic factor, results from excessive intake of food high in fat, cholesterol, and sodium are found to be rampant among people in the low socio-economic status (World Health Organization, 2010)

Jessica (2008) reported that 2.2 million households with people above 60 years live in unfit housing. The quality of older people's housing is of benefit to their health; this is because they are likely to spend longer period of time at home. Ogunleye (2015) submitted that older people, especially female who live alone or in rural areas with unreliable and insufficient incomes faced an increased risk of falls due to poor environment, diet and health care services. In addition, they are more prone to isolation, depression, reduced fitness and increased mobility problems (Waters, 2008). Low educational achievement has consistently been found to be associated with a higher incidence of Alzheimer's disease later in life and low health literacy (Ogunleye, 2015) and less social support than those with high socioeconomic status (Gallo, Bogart, Vranceanu and Matthews, 2005).

Han, Lee, Gu, Oh, Han and Kim (2015), carried out a study among 171 Korean adults who were between 45 and 77 years-old on psychosocial factors influencing healthy ageing. Result of the study shows that people with higher educational backgrounds indicated a higher degree of healthy ageing. Also, home-owning participants had a higher degree of healthy ageing than those who rented property. Furthermore, people with higher income levels and those who were involved in economic activities scored high on the healthy ageing scale. In another study on the impact of physical health and economic status on successful ageing, Kim and Jung (2006) found economic level as an important influencing factor in healthy ageing among older persons.

On the other hand, Paik and Choi (2005) carried out a research on successful ageing among Korean elderly people. The finding of the study indicated that economic status of the participants influenced their successful ageing. Also, Reyes (2004) examined the risk factors for falling among older Mexican Americans and discovered that lower income is associated with increased risk of falling in older people most especially those who were female. Owen and Bell (2004) reported that having household objects with particular personal significance; living in a



place that has links to their own personal history and living in a secure accessible neighbourhood were all important determinants of ageing well.

Older people, who participates in community services and are connected to family and friends could remain happier, be in better physical and mental health and cope effectively with change and life transitions. Social connectedness is a social variable that could influence healthy ageing among older people. In this study, social connectedness entails; social support, social networks, social engagement and supportive social environments. According to the World Health Organization (2010), distress, isolation and social exclusion are substantially the risk of poor health and may act as predictors of death. Social support is a critical component of mental health promotion (Health Canada, 2003) which is provided by family, friends, neighbours and members of local organizations such as faith groups. This creates a sense of belonging to a society that values and appreciates senior citizens.

Adler and Towne (1999) noted that marriage, friendships and community ties all appears to increase life expectancy. Social network is done through a telephone conversation, visit to family members, friends or neighbours, participation in religious groups and attendance at various meetings. Older persons with extensive friendship and family networks are more likely to have better appetites, more protein intake and a higher calorie diet (O'Brien Cousins, 1998). Social engagement could be done through intergenerational volunteerism which involves encouraging individuals of various ages. This increases intergenerational connectedness because after spending time with different age groups, personal views about other generations became less biased and more open (Massachusetts Intergenerational Network, 2005). Supportive social environment relates to how older people are valued in the society and involves building meaningful relations and sharing resources with older people. Older people who feel connected to their community have a higher probability of reporting their health to be good (Ogunleye, 2015).

A research survey done by Seeman and Chen (2001) on risk and protective factors for physical functioning in older adults recruited 1,189 Korean men and women aged 70-79 as participants. The finding of the study revealed that those who scored high on healthy ageing scale were found to have strong social network and support. The study of Ramage-Morin (2006) discovered that daily social support and involvement influenced positive self-perceptions of health among older people. Dietitians of Canada (1998) noted that various studies have revealed that family members and peers may be particularly influential in encouraging people to make healthy changes in their exercise and eating practices. Quadagno (2002) discovered that the frequency of contacts with friends and relatives have great impact on the well-being of older people.

Physical activity is a behavioural determinant of healthy ageing which has been defined as any bodily movement produced by the skeletal muscles which use energy above the resting level. Regular physical activity, often called the "elixir" is essential for healthy ageing (Nelson, Rajeski and Blair, 2007). Also, Fernández-Mayoralas, Rojo-Pérez and Rojo-Abuín (2004) assert that physical and leisure activity is the most nominated dimension by the elderly population for expressing understanding of their quality of life. According to World Health Organization (2002), physical activity is a fundamental cornerstone of active ageing. On the other hand, physical inactivity is the fourth-leading cause of global mortality from non-communicable diseases (That is, 6 percent of deaths annually) behind high blood pressure, smoking and high glucose (World Health Organization, 2010). Physical activity reduces the risk of developing cardiovascular diseases, high blood pressure, diabetics and stroke (Department of Health, Social Services and Public Safety, 2012). Risk factors for falls and fractures such as muscle weakness in the limbs,



poor balance and poor level of overall physical fitness could all be improved through physical activity (Latham, Anderson, Bennett and Stretton, 2003).

A ten-year cohort study done by Fortes, Mastroeni, Sperati, Pacifici, Zuccaro and Francesco (2013) ascertained that increased volume of walking is highly beneficial for functionality and that older people walking outdoors four times weekly or more for at least 15 minutes each walk benefits from almost half the risk of mortality in comparison to old people walking less than that. Shields and Martel (2006) reported that physical activity positively affects functional capacity, mental health, fitness levels, prevention and management of chronic diseases, and overall well-being. Thus, it is associated with improved odds for staying healthy over time and for recovering from poor health.

Data from the Canadian Community Health Survey (2014) revealed that 67% of aged people who were active three or more times a week were in good health when compared to 33% who were infrequently active. This is an indication that there is positive relationship between physical activity and healthy ageing. Borghouts and Keizer (2000) noted strong evidence that regular physical activity has a beneficial effect on insulin sensitivity. Murtagh, Murphy, Murphy, Woods and Lane (2014) discovered in their survey research that older adults who reported meeting the physical activity guidelines had significantly lower body mass index and waist circumference and were less likely to be obese. 5% of older adults who reported walking only at a light intensity were obese, compared to just 11% who reported moderate-vigorous intensity walking. The study concluded that individuals who reported walking at higher intensity are less likely to be overweight or obese.

Purpose of the study

The main objective of this study is to investigate the relationship that exists among income and social status, social connectedness, physical activity and healthy ageing of older adults. Specifically, the research proffered answers to the following research questions:

1. Are there significant relationships among income and social status, social connectedness, physical activity and healthy ageing of older adults?
2. To what extent does income and social status, social connectedness and physical activity jointly account for healthy ageing of older adults?
3. What is the relative contribution of income and social status, social connectedness and physical activity on the prediction of healthy ageing of older adults?

METHODOLOGY

This study adopted a descriptive survey research design of correlational type. The population comprised of all older adults in Ibadan metropolis, Nigeria.

Sample and Sampling Technique

The participants for this study were 87 older adults. Stratified random sampling was used to select six out of the eleven existing local governments in Ibadan metropolis. For convenience, the researcher employed the purposive sampling technique to select fifteen participants from each of the six selected local government. Ninety participants were selected to participate in the study but two questionnaires were not properly filled and one was discovered missing. 48 males and 39 females between the ages of 65 and 80 were participants in the study. Their mean age is 73.5 years.



Procedure for Data Collection

The researcher visited and recruited volunteers from institutions such as community centers, welfare centers and church community programmes for adults in Ibadan metropolis. Detailed information about the purpose and procedure of the study was explained to the participants. Each of the participants gave a written informed consent. Two research assistants that were trained for the purpose of this research guided and assisted the participants in filling the questionnaire. In each of the institutions, administration and collection of instruments was done on the same day.

Measures

Four standardized instruments were used by the researcher in this study. The first instrument is the Scale for Healthy Ageing. This instrument was administered to measure healthy ageing of the participants. The second is Socio-economic Status Scale (SES) for assessing the income and social status of the participants, the third is Social Connectedness Scale- Revised (SCS-R) to measure social support, social networks, social engagement and supportive social environments of the participants and the fourth is Participation in Leisure Activities Questionnaire to determine the level of participation in physical activity of the participants.

The Scale for Healthy Ageing (SHA)

The Scale for Healthy Ageing developed by Ko (2009) was used to measure participants' healthy ageing. The scale consisting 20 items on a 5-point Likert response format measure three different health factors: physical, cognitive-mental, and social-supportive health. An example of items on scale is "I find it difficult to remember occurred events than ever before". The range of scores is between 20 and 100, and a higher score indicates a higher level of healthy ageing. The original reliability of the measure is .89 (Cronbach's α). It was pilot tested for the purpose of this research and the correlation coefficient of $r = 0.79 - 0.88$ was obtained.

Socio-economic Status Scale (SES)

Income and Social status was measured using the Socio-economic Status Scale developed by Aggarwal, Bhasin, Sharma, Chhabra, Aggarwal, and Rajoura (2005). It consists of 22 items measuring the income and social status of the participants. Items such as: "Facility of some essentials of the individual", "Type of locality the individual is residing" could be found on the scale. The scoring ranges with a minimum score of 15 and maximum of 76. For the purpose of this study, the reliability coefficient obtained after test-retest using Pearson Moment Correlation Coefficient (PPMC) was 0.73 to 0.76.

Social Connectedness Scale-Revised (SCS-R)

The SCS-R developed by Lee, Draper and Lee (2001) consists of 20 items assessing older adults' experiences of closeness in interpersonal contexts as well as difficulties establishing and maintaining a sense of closeness. Ten items are negatively worded while the remaining ten are positively worded. This include: "I have little sense of togetherness with my peers". "I find myself actively involved in people's lives". Negatively worded items are reversely scored so that a higher score indicates a greater degree of social connectedness. It uses a 6 point rating scale (1= strongly disagree to 6=strongly agree. Originally, the reliability co-efficient of the scale is 0.81. The scale was pilot tested and it has split-half reliability of 0.79 and 0.84 using the Guttman analytical method.



Participation in Leisure Activities Questionnaire (PLAQ)

Physical activity of the participants was assessed by Seok’s (2005) Participation in Leisure Activities Questionnaire. The questionnaire consists of 9 items on a 5-point response format with three different levels: At home with family, sports, and appreciation of art. An item on the questionnaire is “I often engaged in recreational sport”. Scoring of the questionnaire ranges from minimum of 9 to 45. The original reliability of this questionnaire was Cronbach’s $\alpha = .81$. For the purpose of this study, the reliability coefficient obtained after test-retest using Pearson Moment Correlation Coefficient (PPMC) was 0.63 to 0.71.

Method of Data Analysis

Pearson Product Moment Correlation (PPMC) was used to establish the relationship among the variables. Multiple regressions were also used to establish the joint and relative contribution of independents variables to the prediction of the dependent variable. Statistical Package for Social Sciences (SPSS) was used to analyze data and significance level was set at $p < 0.05$.

RESULTS

Research Question 1: Research Question one examined if there is significant relationship between the independent variables (income and social status, social connectedness and physical activity) and dependent variable (Healthy Ageing).

Table 1: Correlation Matrix showing relationship among income and social status, social connectedness, physical activity and healthy ageing of older adults. (N=87)

| Variables | 1 | 2 | 3 | 4 | Remarks |
|--------------------------|--------|-------|-------|-------|---------|
| Healthy Ageing | 1.00 | | | | |
| Income and Social status | .783** | 1.00 | | | S |
| Social connectedness | .693** | .745 | 1.00 | | S |
| Physical Activity | .863** | .804 | .615 | 1.00 | S |
| Mean | 35.13 | 27.07 | 17.45 | 21.91 | |
| Standard Deviation | 23.37 | 15.75 | 8.53 | 11.72 | |

****Correlation is significant at the 0.05 level (2-tailed)**

Key: S= Significant NS= Not significant

Table 1 reveals the descriptive statistics and inter-correlations among the variables used in the study. Healthy ageing was significantly correlated with income and social status ($r = .783$; $p < .05$), social connectedness ($r = .693$; $p < .05$) and physical activity ($r = .863$; $p < .05$).



Research Question Two: To what extent does income and social status, social connectedness and physical activity jointly account for healthy ageing of older adults?

Table 2: Multiple Regression Analysis on Older adults' Healthy Ageing

| | | | | | |
|---|----------------------|------|----|-------------|--------|
| Multiple R ² (adjusted)=.711 | | | | | |
| Multiple R ² (adjusted)=.674 | | | | | |
| Standard error of estimate = 15.08 | | | | | |
| | Analysis of variance | | | | |
| | Sum of square | (SS) | DF | Mean square | F |
| Regression | 15472.03 | | 3 | 5157.34 | |
| Residual | 3954.97 | | 83 | 47.65 | 108.23 |
| Total | 189297.00 | | 86 | | |

Table 2 indicates that the independent variables (income and social status, social connectedness and physical activity) when combined together have significant effect on healthy ageing of older adults. The value of R (adjusted) =.711 and R² (adjusted) =.674. The analysis of variance done on the multiple regressions yielded an F- ratio value of 108.23 and was found to be significant at 0.05 level. This means that the independent variables accounted for 67.4% in the prediction of older adults' healthy ageing while other variables not included in this study accounted for the remaining 32.6%.

Research Question 3: Research Question three examined if there is relative contribution of the independent variables (income and social status, social connectedness and physical activity) on the dependent variable (healthy ageing). The result is presented in table three.

Table 3: Relative Contribution of Independent Variables to the Prediction of Healthy ageing of older adults

| Model | Unstandardized coefficients | | Standardized coefficients | | T | P |
|--------------------------|-----------------------------|----------------|---------------------------|--|-------|--------|
| | B | Standard error | Beta | | | |
| Constant | 10.901 | 1.567 | | | 6.902 | P<0.05 |
| Income and social status | .422 | .180 | .283 | | .503 | P<0.05 |
| Social connectedness | .509 | .083 | .663 | | .856 | P<0.05 |
| Physical activity | .370 | .126 | .154 | | .375 | P<0.05 |

Table 3 shows that each of the independent variables made a significant contribution to the prediction of healthy ageing. In term of magnitude of contribution, social connectedness made the most significant contribution (Beta= .663; t= .856; p<0.05) to the prediction. Other variables made significant contributions in the following order: income and social status (Beta= .283; t= .503; p<0.05) and physical activity (Beta= .154; t= .375; p<0.05).

DISCUSSION

Research Question one examined if there is significant relationship between the independent variables (income and social status, social connectedness and physical activity) and dependent variable (healthy ageing). The result in table one indicates that there was



significant relationship between the independent variables (income and social status, social connectedness and physical activity) and the dependent variable (Healthy ageing). This corroborates the findings of Kim and Jung (2006) that economic status is a strong predictor of healthy ageing among older persons. Also, Han, Lee, Gu, Oh, Han and Kim (2015) reported that home-owning participants (landlords and ladies) and those with higher educational backgrounds had a higher degree of healthy ageing. Quadagno (2002) discovered that the frequency of contacts with friends and relatives had a great impact on the well-being of older people. Dietitians of Canada (1998) noted that family members and peers may be particularly influential in encouraging people to make healthy changes in their exercise and eating practices. Physical activity positively affects functional capacity, mental health, fitness levels, prevention and management of chronic diseases and overall well-being (Shields and Martel, 2006). Moreover, Borghouts and Keizer (2000) noted strong evidence that regular physical activity has a beneficial effect on insulin sensitivity.

The result presented in table 2 was used to answer the research question two on the joint contribution of the independent variables (income and social status, social connectedness and physical activity) on the dependent variable (healthy ageing). Result of this study reveals that income and social status, social connectedness and physical activity have joint contribution on healthy ageing. This supported the findings of Owen and Bell (2004) that having household objects with particular personal significance; living in a place that has links to their own personal history and living in a secure accessible neighbourhood were all important to ageing well. A research survey done by Ramage-Morin (2006) indicated that daily social support and involvement influence positive self-perceptions of health among older people. Also, data from the Canadian Community Health Survey (2014) recorded that aged people who were active three or more times a week was in good health when compared to those who were infrequently active. Fortes, Mastroeni, Sperati, Pacifici, Zuccaro and Francesco (2013) ascertained that increased volume of walking is highly beneficial for functionality in older people.

The third research question was to determine the relative contribution of income and social status, social connectedness and physical activity on healthy ageing. Social connectedness contributed most to the prediction of healthy ageing, followed by income and social status while physical activity was the least predictor of healthy ageing. The finding in this study corroborates the earlier findings of Seeman and Chen (2001). In their survey research, participants who scored high on healthy ageing scale were found to have strong social network and support. The World Health Organization (2010) noted that distress, isolation and social exclusion are substantially the risk of poor health and may act as predictors of death. Older people who feel connected to their community have a higher probability of reporting their health to be good (Ogunleye, 2015). Thus, social support is a critical component of mental health promotion (Health Canada, 2003).

The result of this study showed that participants from high socio –economic status scored high on healthy ageing scale. This is in line with the earlier finding of Paik and Choi (2005) that economic status of older people determined their successful ageing. In the study, those who have high economic status scored high on successful ageing scale. Also, Reyes (2004) discovered that lower income and social standing is associated with increased risk of falling in older people most especially those who were females. The researcher found physical activity as the least factor influencing healthy ageing. This is consistent with the result in the study of Murtagh, Murphy, Murphy, Woods and Lane (2014). They found that older adults who reported meeting the physical activity guidelines had significantly lower body mass index and



waist circumference and are less likely to be obese. The study concluded that individuals who reported walking at higher intensity are less likely to be overweight or obese.

Recommendations

Based on the findings of the study, the following were recommended:

1. Older people should maintain social connection with family and friends.
2. Government should adopt measures that could improve the economy of the country
3. Access to quality health care services at no or low cost could be made for all aged people in the society.
4. Adults should engage in moderate physical activity on a regular basis.
5. Developmental psychologists and health providers should develop health policies that could promote healthy ageing and such policies should be adopted by stakeholders.

Conclusion

In the present millennium, older people are of intrinsic value to the society. A society for all ages enables aged people to contribute their skills, knowledge and experience so as to be productive and actively involved in the society. On this basis, relevant education from childhood on healthy ageing may play a significant role in achieving this, because many old-age health problems were mostly rooted in early life experiences and living conditions. The study discovered social connectedness to be a strong predictor of healthy ageing followed by income and social status while physical activity is the least predictor of healthy ageing.



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