Quality of Green Space and Physical Health among Elderly People in Obio/Akpor Local Government Area, Rivers State: The Response of Psychology

Iyagba P. W., Ogundipe Nnennaya. Q
Department of Educational Psychology, Guidance and Counseling, Faculty of Education, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Rivers State, Nigeria.

Annotation: The study investigates quality of green space and physical health among elderly people in Obio/Akpor Local Government Area of Rivers State: The response of psychology. The study adopted a correlation research design with incident population of 7222 elderly in Obio-Akpor Local Government Area, Rivers State with a minimum sample of 367 representing 5% of the population. The study adopted 3 research questions and corresponding null hypotheses. Purposive random sampling technique was used to draw the minimum sample for the study. Three self-structured instruments were used for the study titled. Quality Green Space Scale (GSSS) and Physical Health Elderly Scale (PHES). The instruments 21 items with sub-sections, A, B, C and D. Section A with 5 items, B with 6 items and C with 5 items were used to elicit information from the respondents on the independent variable (GSSS), forest, private parks and private gardens while section D was used to elicit information on the dependent variable (PHES); Physical Health of the Elderly. The Instruments were subjected to experts in the department of Measurement and Evaluation, Faculty of Education, Ignatius Ajuru University, Rumuolumeni, Port Harcourt to validate the face and content of the instruments. Cronbach alpha was used to determine the internal consistency reliability coefficient of the instrument which measured 0.78 and 0.85 respectively. The subscales forest 0.87, private parks 0.68, private gardens 0.78. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the hypotheses at 0.05 level of significance. The study found out that there is a significant high positive relationship between green spaces; forest, private parks, private garden and physical health among the elderly in Obio/Akpor Local Government Area of Rivers State. Based on their response, it has shown that creation or recreations of green spaces are necessary for the physical health of the elderly in Obio/Akpor, Rivers State. The study recommended that residents should be sensitized on the benefits of green spaces in order to treat the green spaces with care. Government should create places for green spaces for the quality health of the inhabitants. Legislation against deforestation should be enacted to mark a point of sanction against reserved forest destruction.

Key words: Quality, Green Space, Physical Health, Elderly.

Introduction

Background to the Study

A good and quality of life is a determinant of serene environment that is significantly sufficient of green spaces, and natural environment. Green space is an environment that is devoid of dry leaves, pollutions, degradation and all manner of littering, and unhealthy practices. It involves green leaves that contribute greatly to the well-being of not only the elderly but every living being. It has been recognized for centuries that contact with nature can be restorative and evidence of good physical health among human beings. Human stability from some of physical, mental and health related stress is a determinant factor of green space. The benefits of green space to human cannot be over emphasized. It culminates unusual friendliness and contributes to human stability. God knew the power of green space which led him into the creation and planting of vegetation of different kinds and also the
garden of the eastern Eden for the benefits of human and animal habitation. It also has the predetermined factor to resolve ailments. Frumkin, 2013, Taylor and Hochuli, 2015 in Taylor and Dieter (2017) posited that green space is usually, but not always, comprised of vegetation and associated with natural elements. Green spaces are the trees and grass and shrubs in yards, parks, medians, anywhere intermingled throughout the built environment. Green space is any piece of land covered with vegetation; refers to as parks, golf courses, sports fields, forest and other open land within the built-up area, whether publicly accessible or not. There has been growing interest in green space research due to evidence that nature positively impacts human wellbeing.

Carla (2021) pointed out that trees and green spaces are part of the environmental systems that are essential to the quality of human life in urban spaces. It reduces and exonerated humans and animals the tendencies of common ailments that would have accrued in the absence of green space. Its benefits to living cannot be over emphasized this is because it regenerates and restored the original natural endowments of the environment from creation. Callum (2020) stated that green spaces in cities mitigate the effects of pollution and can reduce a phenomenon known as the urban heat island effect, which refers to heat trapped in built-up areas. To Enssle and Kabisch, (2020) urban green composition and tree structure have been observed significant for air filtration and climate regulation. Humans who inhabits within and around the green spaces tend to ameliorated stress. They feel relaxed, consume the provinces, absorb its benefits, regains strength, sleep comfortably, and has the tendencies of resolving toxins. Kashimira (2019) said having access to green spaces like parks has been linked in a study to a lower risk of dying. Yessoufou, Sithole, and Elansary, (2020) posited that urban green spaces are open spaces in the public or private domains referring to all forms of greener (parks, green roofs, woodlands, community gardens, lawns, sporting fields, bushes, ornamental plant arrangements, and so on) that are widely recognized as important in creating livable cities. It is immeasurable on the needs of green spaces in and around our environment.

Dhingra and Chattopadhyay (2016) stated that the role of urban green spaces has been recognized as a primary source of a livable and sustainable city. Urban greenness improves human life actively by mitigating the urban heat island densely populated areas. Eloi (2020) believes that greenery has the capacity of reducing the air temperature between 2 and 8 degrees Celsius, mitigating the heat island effect and reducing the number of tropical nights. In future scenarios that predict a temperature difference of 15 degrees between urban and rural spaces, such reduction can entail success or failure of the urban model. United States Environmental Protection Agency (USEPA, n.d) defined green space (land that is partly or completely covered with grass, trees, shrubs, or other vegetation). Green space includes parks, community gardens, and cemeteries. However, green space provides recreational areas for residents and helps to enhance the beauty and environmental quality of neighborhoods. They create urban ecological systems which contribute tremendously to the creation of sustainable cities. Green roofing, for example, is recently showed not only to mitigate urban temperature increase but also to maintain a climatically cool environment. Eloi (2020) stated that health is more conditioned by our environment and way of living than by our health system. The cities we live in, the way we move around urban areas, and the quality of the air we breathe constitute 50 per cent of the so-called “health determinants”, whereas only 11 per cent are related to our health systems.

The urban lifestyle has tremendously negatively contributed to the degradation of original natural God given environment for the good of humans. Urban migration, population density and exploration, deforestation and infrastructural development, civilization and globalization has hampered on constant and unabated attack to the green space without alternatives thereby contributing to various man made related disaster. Eloi (2020) postulated that urban environments like Obio/Akpo often encourage sedentary lifestyles which contribute to major health problems such as obesity and cardiovascular diseases. They also promote dependence on vehicles, which are often fossil-fuelled, causing negative environmental impacts such as air and noise pollution. WHO (2017) reported that...
modern urban life style is associated with chronic stress, insufficient physical activity and exposure to anthropogenic environmental hazards. Urban green spaces, such as parks, playgrounds, and residential greenery, can promote mental and physical health, and reduce morbidity and mortality in urban residents by providing psychological relaxation and stress alleviation, stimulating social cohesion, supporting physical activity, and reducing exposure to air pollutants, noise and excessive heat. The urban heat island effect appears in towns and cities like Obio/Akpo as a result of human activity. The heat generated by people, transport, shops and industry, black sooth is trapped in the narrow roads and concrete structures, unable to escape to the atmosphere. This can bring the temperature in urban areas up 3-4°C higher than the surrounding countryside, and with that comes a vicious cycle. Researchers estimate that nine million people die every year as a direct result of air pollution. In London, two million people - of which 400,000 are children - are living in areas with toxic air which is no exception with life and living in Obio-Akpor city which contain the largest population in the State.

As our cities grow and more people move into already crowded spaces. It is therefore the duty of every one to aspire for natural environmental restoration, to transform our urban areas into healthy places to live for human health gains. WHO (2019) recommended the following on how to establish green space in the urban areas:

- Establish street greenery, urban gardens and green trails in close vicinity to urban residents, and use public open spaces for greenery;
- Urban residents should be able to access public green spaces of at least 0.5-1 hectare within 300 metres’ linear distance (around 5 minutes’ walk) of their homes;
- Ensure access to urban green space of sufficient quality for all population groups and users (universal access).
- Use greening opportunities in other sectors and projects (greening of schools, business areas, shopping areas, housing estates and similar) and promote private green areas.

Muhammad, Mariney, and Aziz (2021) pointed out that there is relationship between urban green spaces and human well-being. Hence, recommended that;

1. A daily base interaction with green landscapes is needed for physical well-being and other health benefits,
2. A weekly visit can enhance human well-being and mental growth, and Even a view of the green environment improves work performance in office and prevent mental stress effects.

Urban green spaces interaction is mostly found positive relations with human psychological restoration along with feelings well, improved mental energy, work performance, and restore attention. Green spaces improve human psychology by reducing mental stress and rejuvenating attention. Urban greenness promotes human mental satisfaction to promote intellectual and decrease antagonism behaviour. Muhammad, Mariney, and Aziz (2021) said that green spaces are obligatory landscapes in an urban structure that provide a natural environment and accelerate other life events. In contrast, unplanned urbanization, and conversion from green to grey structures have damaged natural environmental resources.

University of Dalaware (2019) observed that interaction with gardens and natural spaces offers a variety of mental, physical and social benefits for humans, ranging from stress reduction, quicker healing, and mitigation of attention deficit disorder in children to decreasing crime and air pollution. World Health Organization (2019) revealed that through improved air and water quality, buffering of noise pollution and mitigation of impacts from extreme events, urban green spaces can reduce environmental health risks associated with urban living. In addition, they support and facilitate health and well-being by enabling stress alleviation and relaxation, physical activity, improved social interaction and community cohesiveness. Health benefits include improved levels of
mental health, physical fitness and cognitive and immune function, as well as lower mortality rates in general. University of Dalaware (2019) said that green space enhances health.

Most studies throughout the world have proven the power of green spaces to improve human health. Cities with high numbers of parks battle obesity and diabetes. Recent studies in the Netherlands and Japan show that people with easy access to green space boasted better health and lower mortality rates. Even relatively passive contact with nature—such as viewing it from a window—lowers blood pressure and anxiety levels. Hyun and Dong, (2019) urbanization in Korea, 9.8% of the population lived in cities in 2017, the percentage of the elderly population living in urban areas rose from 56.4% in 1994 to 78.6% in 2014. Urban environments often lack access to green spaces due to the proliferation and density of buildings, and urban residents have been found to be more vulnerable to mental health issues such as stress and depression due to deterioration in their social and economic status, as well as due to physical illness.

Statement of the Problem

The essence of life is to enjoy every bit of nature made specially for human by the creator (God) for the good of man. Garden of Eden was naturally green space made by God because of importance of green space to living things. Unfortunately, man who was created by God through his image has in every facet of life activity contributed to the destruction of natural God’s free given gift for the all-round good of man. Human actions and inactions have immensely contributed negatively to the depletion of green space in the world which Obio/Akpor in Rivers State is no exception. All these human activities ranges from littering, bunkering, deforestation through cutting of trees and burning them, black sooth, hydrocarbons/carbon dioxide (co2), and so on. These practices may in no doubt affect the physical health of the elderly is the area. However, the benefit of green space is needed to be restored. Hence, unwholesome human practices which endanger the environment and green space extinction ought to be significantly discouraged by everyone. For this purpose the research sought to empirically proven the extent to which quality of green space relates to the physical health of the elderly in Obio/Akpor Local Government Area of Rivers State.

LITERATURE REVIEW

The following concepts were reviewed as shown below:

Conceptual Review

Concept of Quality

Quality is anything that meet standard that is devoid of substandard. It is expected to be measured a generally acceptable durability. Humans especially the high socioeconomic people tend to spend toward quality as best choice for life. It is expected that everything should have quality even in product and service. Generally, a notion people has and display at the point of buying and selling concerning the quality of a product or the quality of service rendered or to be rendered. John (2017 stated that quality in environment, quality of life, water, foods, drugs, wears, housing/infrastructures, information, time and so on. quality is the value of things relative to their purpose. Any product, service, experience or asset can be described in terms of its quality or lack of quality. Quality includes both tangible aspects such as features and intangible aspects such as the taste of food. There is need for humans to live a quality life within his inhabited environment so as to enjoy quality life in his or her serene environment.

Concept of Green Space

Green space has been identified by various researchers and studies as a place that is needed in human environment for the purpose of quality health. Dinnie et al., 2013; Dennis and James, 2016; Jennings and Bamkole, 2019 stated
that green spaces are public areas that include natural vegetation components, such as grass, trees, and/or shrubs that people commonly utilize as gathering places for recreation, sport, relaxation, and other social activities. Medical News today. (2020) sees green to be associated with better air quality, reduced traffic noise, cooler temperatures, and greater diversity.

Hartig et al., (2014); Taylor and Hochuli, (2017) posited that areas can be naturally created, such as forests, other landscapes with natural entities or human-made or built environments that contain natural vegetation, such as gardens and parks. Urban green spaces such as parks, sports fields, woods, lakesides, and gardens give people the space for physical activity, relaxation, peace, and an escape from heat, reduce stress, boost mental and physical health. De Keijzer (2019) stated that demographic areas with higher levels of green space have been found to foster social cohesion and reduce feelings of loneliness, which are very relevant predictors of health in the older population. Han, Xiaoling, Jinglan, Xingyi, and Xin, (2019) green space in the urban is a valuable resource for physical activities of urban inhabitants and has the potential to reduce chronic illness and improve health.

Urban open green space plays an important role in promoting physical activity especially among the women and the old people. De Keijzer (2019) opined that green spaces are areas partially or fully covered by vegetation (e.g. trees, grass, and bushes), which can come in many forms, including large forests, small city parks, and even the street trees in your neighbourhood. Recent studies have found that living in neighbourhoods with more green space is associated with improved mental health and self-perceived physical health, reduced levels of obesity, and reduced risk of disease. As older adults generally are more bound to their direct home surroundings, they may especially benefit from green spaces in within the area. Van Dijk-Wesseliusa, Maasb, Hovingaa, Van Vugtb and Van den (2018) pointed out that green space quality has been associated with health outcomes independently of the green space quantity.

To Fangying, Zhao-Cheng and Edward (2016) urban green space provides a wide range of benefits in sustaining urban natural environments and the social systems that use these spaces. The benefits include improving air quality, reducing urban heating island effects, and making urban environments more preferable. Moreover, exposure to green spaces promotes physical activities and enhances mental health and psychological state of elderly people. De Keijzer (2019) posited that older adults living in an area with more green space have reported to have a better general health, more life satisfaction, and less stress. In addition, higher exposure to green space has been associated with a lower risk of cardiovascular disease such as diabetes. Moreover, more green space in the neighbourhood and more visits to green spaces have been associated with lower mortality in the older population.

Concept of Physical Health

Physical health is connected to a healthy life, fitness, ability to physically active into world of physical engagements, and absence of terminal ailment. WHO (1999) defines health as ‘a state of complete physical, mental, and social well-being and not merely the absence of disease, or infirmity. Piwowar-Sulej and Bk-Grabowska (2021) stated that physical health can be defined as normal functioning of the body at all levels; a normal course of biological processes that ensures individual survival and reproduction; a dynamic balance between the body’s functions and the environment; participation in social activities and socially useful work; performance of basic social functions; the absence of diseases, painful conditions, and changes; and the body’s ability to adjust to the constantly changing conditions of the external environment. Piwowar-Sulej and Bk-Grabowska (2021) physical health is initial genetically determined human motor capacity (physical fitness), undergoing marked changes in the process of morph functional adaptation (physical development) to changing environmental conditions and standards of living. Magma (n.d) Physical health is the well-being of the body and the proper functioning of the organism of individuals, which is a normal condition for individuals of both physical and mental condition who are not suffering from any type of sickness. John and Lesley (2015) Physical health can...
refer to a person’s physical activity. Physical health can refer to a person’s physical activity level, diet, nutrition, sleep cycle, and level of consumption of alcohol or drugs.

**Concept of Elderly**

Elderly is related with old age. It is those who are winding down or warning out from the face of the earth. It is connected with those within 70 years. Elderly is connected with the dying of body cells and related health challenges as a result of longer years been lasted on earth. Hajime, Hideki, Takao, Atsushi, Takayuki, and Motoji, (2006) opined that conventionally, “elderly” has been defined as a chronological age of 65 years old or older, while those from 65 through 74 years old are referred to as “early elderly” and those over 75 years old as “late elderly.” However, the evidence on which this definition is based is unknown. We have attempted to review the definition of elderly by analyzing data from long-term. It is established that elderly are those who are aged. However, age for elderly varies as a result of life expectancy of regions and countries. For instance life expectancy in Nigeria in 2021 is 54 years, 53.9 for males and 55.6 for females.

However, Nihon (2008) posited that in modern Japan where the average life span is 80 years or more, it has become already outdated to group the elderly into a chronological age of 65 years or more. WHO (1999) pointed out that good health is vital to maintain an acceptable quality of life in older individuals and to ensure the continued contributions of older persons to society. It is important to distinguish the ageing process from the process of ageing. The ageing process (‘normal ageing’) represents the universal biological changes that occur with age and are unaffected by disease and environmental influences. Not all of these age-related changes have adverse clinical impacts.

**Theoretical Review**

The study adopted existential theory as propounded by Soren Kierkegaard 1930. The theory has it that human existence is a function of self-awareness and self-respect and human effort to live and exist in the world of changing possibilities. Man need to exist within a possible stability irrespective of where he finds himself and nothing for any reason deter that idea except death. Hence, the health of the elderly in their various serene living locations should be one that will aid them their healthy existence without being negatively affected by human activities. This theory is suitable for this study because it talks about the quality of life of the elderly in a green space environment that should stabilize their physical health for them to exist.

**Aim and Objectives of the Study**

The aim of the study was to investigate the quality of green space (absence of litter, accessibility and colourfulness by observation) and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State. Specifically, the objectives of the study were to:

1. Ascertain the relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.
2. Find out the relationship between private parks and physical health among the elderly.
3. Find out the relationship between private garden and physical health among the elderly Obio-Akpor Local Government Area of Rivers State.

**Research Questions**

The following research questions guided this study:

1. What is the relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State?
2. What is the relationship between private parks and physical health among the elderly of Rivers State?

3. What is the relationship between private garden and physical health among the elderly Obio-Akpor Local Government Area of Rivers State?

**Hypothesis**

The following null hypothesis tested at 0.05 alpha level of significance.

1. There is no significance relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

2. There is no significance relationship between private parks and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

3. There is no significance relationship between private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

**Methodology**

The study adopted a correlation research design with incidental population of 7222 elderly in Obio-Akpor Local Government Area, Rivers State with a minimum sample of 367 representing 5% of the population. The study adopted 3 research questions and corresponding null hypotheses. Purposive random sampling technique was used to draw the minimum sample for the study. Three self-structured instruments were used for the study titled: Quality Green Space Scale (GSSS) and Physical Health Elderly Scale (PHES). The instruments 21 items with sub-sections, A, B, C and D. Section A with 5 items, B with 6 items and C with 5 items were used to elicit information from the respondents on the independent variable (GSSS); forest, private parks and private gardens while section D was used to elicit information on the dependent variable (PHES); Physical Health of the Elderly.

The Instruments were subjected to experts in the department of Measurement and Evaluation, Faculty of Education, Ignatius Ajuru University, Rumuolumeni, Port Harcourt to validate the face and content of the instruments. Cronbach alpha was used to determine the internal consistency reliability coefficient of the instrument which measured 0.78 and 0.85 respectively. The subscales forest 0.87, private parks 0.68, private gardens 0.78. The 21 items in this scale were structured in line with the four point modified Likert response options of Strongly Agree = SA, Agree = A, Disagree = D, and Strongly Disagree = SD, which was assigned numerical values of 4, 3, 2 and 1. Linear regression was used to answer the research questions while t-test associated with linear regression was used to test the hypotheses at 0.05 level of significance.

**Research Question 1**: What is the relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State?

**Table 1: Linear Regression on the Relationship between Forest and Physical Health among the Elderly in Obio-Akpor Local Government Area of Rivers State**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.773a</td>
<td>.598</td>
<td>.598</td>
</tr>
</tbody>
</table>

Table I revealed that the Pearson Product Moment Regression coefficient is 0.773. The result depicts that there is a positive high relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State. Therefore, an increase in forest leads to a corresponding increase in physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.
Research Question 2: What is the relationship between private parks and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State?

Table 2: Linear regression on the Relationship between Private Parks and Physical Health among the Elderly in Obio-Akpor Local Government Area of Rivers State

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.669a</td>
<td>.447</td>
<td>.440</td>
</tr>
</tbody>
</table>

Table 2 revealed that the Pearson Product Moment Regression coefficient is 0.669. The result depicts that there is a positive high relationship between private parks and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State. Therefore, an increase in private parks leads to a corresponding increase in physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Research Question 3: What is the relationship between private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State?

Table 3: Linear regression on the Relationship between Private Garden and Physical Health among the Elderly in Obio-Akpor Local Government Area of Rivers State

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.699a</td>
<td>.489</td>
<td>.489</td>
</tr>
</tbody>
</table>

Table 3 revealed that the Pearson Product Moment Regression coefficient is 0.699. The result depicts that there is a positive relationship between private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State. Therefore, an increase in private garden leads to a corresponding increase in physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Hypothesis 1: There is no significance relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Table 4: T-test associated with Linear Regression on the Relationship between Forest and Physical Health among the Elderly in Obio-Akpor Local Government Area of Rivers State.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standard Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Forest</td>
<td>35.655</td>
<td>1.557</td>
<td>22.897</td>
<td>.000</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>.125</td>
<td>.048</td>
<td>2.598</td>
<td>.011</td>
<td></td>
</tr>
</tbody>
</table>

P(0.011)<0.5

Table 4 showed that the t-calculated value associated with regression is given as 2.598. The hypothesis is significant because the probability value of 0.011 is less than the alpha value of 0.05. Therefore, there is a significant relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Hypothesis 2: There is no significant relationship between private parks and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.
Table 5: T-test associated with Linear Regression on the Relationship between Private Parks and Physical Health among the Elderly in Obio-Akpor Local Government Area of Rivers State

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standard Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>68.117</td>
<td>.815</td>
<td>.669</td>
<td>19.53</td>
<td>.000</td>
</tr>
<tr>
<td>1 Private Park</td>
<td>-815</td>
<td>.999</td>
<td></td>
<td>8.240</td>
<td>.000</td>
</tr>
</tbody>
</table>

P(0.000)<0.05
Table 5 showed that the t-calculated value associated with regression is given as 8.240. The hypothesis is significant because the probability value of 0.000 is less than the alpha value of 0.05. Therefore, there is a significant relationship between private parks and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Hypothesis 3: There is no significant relationship between private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Table 6: T-test associated with Linear Regression on the Relationship between Private Garden and Physical Health among the Elderly in Obio-Akpor Local Government Area of Rivers State.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standard Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>55.98</td>
<td>49.480</td>
<td>.468</td>
<td>16.40</td>
<td>.000</td>
</tr>
<tr>
<td>1 Private Garden</td>
<td>4</td>
<td>.480</td>
<td>.999</td>
<td>2</td>
<td>.000</td>
</tr>
</tbody>
</table>

P(0.000)<0.05
Table 6 showed that the t-calculated value associated with regression is given as 4.860. The hypothesis is significant because the probability value of 0.000 is less than the alpha value of 0.05. Therefore, there is a significant relationship between private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

Summary of Findings
The findings of this study are summarized as follows:

1. Therefore, there is a significant relationship between forest and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

2. There is a significant positive high relationship between private parks and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.

3. Therefore, there is a significant relationship between private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State.
Discussion of Findings

Based on the findings the study therefore revealed that there is a significant high positive relationship between green spaces; forest, private parks, private garden and physical health among the elderly in Obio-Akpor Local Government Area of Rivers State. Based on their response, it has shown that creation or recreations of green spaces are necessary for the physical health of the elderly in Obio-Akpor, Rivers State, Nigeria. However, it was discovered that urban migration and urbanization has led to the destruction of green spaces which has contributed to the health challenges of not only the elderly but also the rest of the living beings. Hartig et al., (2014); Taylor and Hochuli, (2017) are in agreement with the study, according to them, the urban areas naturally created green spaces, such as forests, other landscapes with natural entities or human-made or built environments that contain natural vegetation, such as gardens and parks are beneficiary for the older and younger people. Urban green spaces such as parks, sports fields, woods, lakesides, and gardens give people the space for physical activity, relaxation, peace, and an escape from heat, reduce stress, boost mental and physical health of the people mostly the older people who are ageing and capable of reducing their chances of old ageing related diseases.

De Keijzer (2019) stated that demographic areas with higher levels of green space have been found to foster social cohesion and reduce feelings of loneliness, which are very relevant predictors of quality health in the older population. According to Han, Xiaoling, Jinglan, Xingyi, and Xin, (2019) green space in the urban is a valuable resource for physical activities of urban inhabitants and has the potential to reduce chronic illness and improve health of the aged people. De Keijzer (2019) opined that older adults living in an area with more green space have reported to have a better general health, more life satisfaction, and less stress. Similarly, Piwowar-Sulej and Bk-Grabowska (2021) stated that physical health can be defined as normal functioning of the body at all levels; a normal course of biological processes that ensures individual survival and reproduction; a dynamic balance between the body’s functions and the environment; participation in social activities and socially useful work; performance of basic social functions; the absence of diseases, painful conditions, and changes; and the body’s ability to adjust to the constantly changing conditions of the external environment.

Fangying, Zhao Cheng and Edward (2016) pointed out that urban green space provides a wide range of benefits in sustaining urban natural environments and the social life style of the elderly that use these spaces. The benefits include improving air quality, reducing urban heating island effects, and making urban environments more preferable.

Conclusion

Based on the findings, the study therefore concludes that there is need for well planned restoration of green spaces in the Obio/Akpor since it was discovered a significant high relationship with the physical health of the elderly. Green spaces has a lot of positive contributions to human healthy and helpful for the ageing people. Therefore, the need for restoration and recreation of green spaces at various human habitable environment/places for the reductions of black sooth, heat, sun harshness, smokes, depression, high blood pressure, mental stability, and so on.

Recommendations

The study therefore recommended the following:

1. Residents should be sensitized on the benefits of green spaces in order to treat the green spaces with care.
2. Government should create places for green spaces for the quality health of the inhabitants.
3. Legislation against deforestation should be enacted to mark a point of sanction against reserved forest destruction.
4. Inhabitants should embark on creations of private parks, private gardens and treeplantings in their areas so as to maintain the health of the people and more of the elderly.

References


