

## Assessment of physical activity, feeding and toileting practices among aged people in Ebonyi state

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### Abstract

The study focused on assessment of physical activity, feeding and toileting practices among aged people in Ebonyi State. Three research questions guided the study. A survey research design was adopted for the study. The population of the study was 79,280. The sample size of the study was 395 aged people which were drawn using convenience/purposive sampling technique. Instrument for data collection was structured questionnaire. Data collected were analysed using mean and standard deviation. The result from the study revealed high practices of physical activities, feeding and toileting among aged people in Ebonyi State. The study recommended that there is need for more provision of effective and functional health care centres for the aged in Ebonyi State were they will be trained on the need for effective physical activities, feeding practices, and more facilities for toileting among aged people in Ebonyi State.

**Keywords:** Physical Activity; Feeding; Toileting; Aged people; Ebonyi state

### 1. Introduction

World Health Organization under the United Nations in 2015 officially categorized age of a person as young age from 25 to 44, middle age 44-60, elderly age 60-75, senile age 75-90 and long-livers after 90. Although, this international standard of age category was made without taking into account the persons developmental psychology and physiological changes in an organism throughout the life span and the course of rapid growth, smooth development into mature age and the subsequent gradual aging of the human body [1].

Age is a progressive physiological change in an organism that leads to a decline of biological functions of an organism's ability to adapt to metabolic stress. According to Kyriazis, aging can be time-related deterioration of the physiological functions necessary for survival and fertility of an organism [2]. A number of physiological and emotional changes take place during this life stage. Older people can face a variety of health challenges [3]. These health challenges may include increased blood pressure, reduction in the functionality of bones, shrinking of the skin and deterioration of bone, and vision. Aging may lead to the weakening of the immune system. The immune system may also have more difficulties battling invaders and infections. Addor FAS opined that in aging process, skin becomes thinner and more wrinkled and may take longer to heal after injury [4]. Older adults may gradually lose an inch or two in height. And short-term memory might not be as keen as it was. However, many older adults remain in relatively good health and continue to be active

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into their golden years. For a healthy aging process, there is need for effective physical activity, adequate feeding as well as toileting practice to enhance adequate bowel and bladder management to maintain healthy life and longevity [4].

Physical activity describes any bodily movement produced by skeletal muscles that results in energy expenditure. The energy expenditure can be measured in kilocalories. Physical activity in daily life can be categorized into occupational, sports, conditioning, household, or other activities. Exercise is a subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness. Physical fitness is a set of attributes that are either health- or skill-related [5,6]. Physical exercise is one of the leading desirable health behaviour practised by many people both young and old [7], and it is one of the primary actions to prevent diseases that occur as a result of inactivity among the aged [8-10]. Moreover, physical activities or exercises among the aged helps to relieve pain, enhance mobility, prevent cardiovascular diseases, stroke and some cancer types, reduce cognitive decline and reduce the death rate and as well enhance longevity[11,12]. Physical exercise is a protective factor for noncommunicable diseases such as cardiovascular disease, stroke, diabetes, and some types of cancer and PA is associated with improved mental health, delay in the onset of dementia, and improved quality of life and wellbeing [13]. The health benefits of PA are well documented with higher levels and greater frequency of PA being associated with reduced risk and improved health in a number of key areas

Studies have reported physical exercise participation decline with age especially among older adults [14]. Centers for Disease Control and Prevention (CDC), has reported that about 28% of adults aged 50+ are inactive and this percentage is as high as 30% in older adults with chronic diseases [15]. This prompted the Center for Disease Control and Prevention (CDC) to recommend that older people should engage in physical exercise of moderate to high intensity for 75 to 150 minutes per week with muscle training twice a week to gain the health benefits of physical exercise [12]. In addition, the WHO reported that around 3.2 million deaths each year are attributable to physical inactivity, thus, it is important that elderly people indulge in physical exercise to promote health and prolong life [6]. However, despite the benefits of physical activities to the aged, no studies to unravel the participation of physical activities among aged in Ebonyi state, Nigeria this prompted the need for the present study.

Apart from physical activities and exercise, feeding is another important factor for a healthy living among aged people in the society. This is evidence as peoples' life and quality of health is usually dependent on the proper and adequate consumption of the needed amount of nutrients in the food [16-20]. Good nutrition or a healthy diet is a diet that comprises of all the classes of food that would help to maintain or improves overall health [21]. A healthy diet provides the body with essential nutrition: fluid, macronutrients such as protein, vitamins, and adequate fibre as well as food energy. Feeding on a healthy diet like fruit, vegetables, whole grains and a moderate amount of unsaturated fats, meat and dairy can help one especially aged person to maintain a steady weight. Study has observed that adequate nutrition is an important element of health in the older population as it improves sound health during aging process [22]. In addition, the fitness and nutritional choices made earlier in life set the stage for continued health and happiness at older age [22].

However, despite all the nutritional requirements to maintain a healthy and longer life, some persons including the aged were often deprived access to a healthy diet for some reason related to food taboos especially in developing countries like Nigeria and Ebony state in particular [23,24]. The deprivation to a healthy diet for any reasons is the actual cause of malnutrition with the consequence of ill-health especially among the aged [25]. The consequences of malnutrition are physiological, biochemical and psychological. They include reduced immunity, delayed wound healing and decreased muscle strength, which in turn have detrimental effects on recovery and rehabilitation especially among the older people. Malnutrition is more common and increasing in the older population, thus, study has revealed that currently 16% of those >65 years and 2% of those >85 years have been identified as malnourished [26]. These figures is predicted to rise dramatically in the next 30 years. Almost two-thirds of general and acute hospital beds are used by people aged >65 years [27]. Studies in developed countries found that up to 15% of community-dwelling and home-bound elderly, 23% to 62% of hospitalized patients including 85% of nursing home residents suffer from malnutrition [27,28]. It is against this background that the presents study attempt to explore the feeding practices among the aged of Ebonyi State Nigeria.

Further, the current study attempt to examine the toileting practice among the aged. This is also known as bowel and bladder practice among older people. Toileting is a mechanism through which human pass out waste. Toileting is the ability to use the lavatory, toilets or convenient rooms to manage bowel and bladder function through the use of protective undergarments or surgical appliances if appropriate [28]. Toileting is further conceptualized as the act of using toilet facilities in urinating and defecating. The ability of an aged person to effectively manage both feeding, toileting is very crucial to their overall health [29]. More so, dirtiness as a result of poor toileting practice (bladder and bowel management) is one of the major causes of constant sickness among aged people in the society [30,31]. According

to the World Health Organisation, poor sanitation and environmental hygiene as a result of poor toileting/bowel and bladder practices among aged people contributes to diarrheal diseases and malnutrition through fecal contamination of food and water, thus, one gram of faeces can contain one hundred parasite eggs, one million bacteria, and ten million viruses [30,31]. Poor feeding and toileting practice is thought to strain the immune system to the point that permanent stunting and other manifestations of malnutrition can result especially among aged [32].

Despite the importance of physical activity, adequate feeding and effective toileting practices among the aged people as established in the literature. It is regrettable that there is little or no studies to examine the aged physical activity, feeding and toileting practices in Ebonyi State, Nigeria. However, it has been observed that most aged people in the state adopt poor feeding practice due to some food avoidance at old age. Most aged people eat poor nutritive foods. Most of them eat little which may not be satisfying to them. Poor nutrition exposes aged people to health risks. On the other hand, poor toileting practice by aged people also expose them to health risks. It is based on this that the study examines physical activity, feeding and toileting practices in Ebonyi State, Nigeria. The main objective of the study was to assess physical activities, feeding practice and toileting practice among aged people in Ebonyi State.

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## **2. Material and Methods**

### **2.1. Research design**

A descriptive cross-sectional survey research design was conducted from 1<sup>st</sup> April 2023 to 29<sup>th</sup> October 2023 to assess physical exercise, feeding and toileting practices among aged people in Abakaliki, Ebonyi State, Nigeria. Abakaliki is the capital city of Ebonyi State in south-eastern Nigeria, located 64 kilometres southeast of Enugu. Ebonyi State is one of the Igbo states in the southeast Nigeria with a total landmass of 5,533km<sup>2</sup> [33]. The major occupation of the people in Ebonyi State are mainly farmers with few traders and civil servants [34].

### **2.2. Population of the Study**

The population of this study comprised all the aged people in Abakaliki metropolis of Ebonyi State. Based on the existing data the total population was seven nine thousand, two hundred and eighty (79,280) aged people in abakaliki [35].

### **2.3. Sample and Sampling Techniques**

The sample of the study is 395 aged people. This was estimated using the Taro Yamane's formula. The sampling technique used was convenience/purposive sampling. This permit the researchers to administer the research questionnaire to the respondents at any time, any point and anywhere the respondents could be assessed. At the end, (395) aged people were sampled for the study.

### **2.4. Instrument for Data Collection**

A semi self-structured instrument titled: Physical Exercise, Feeding and Toileting Practices among Aged People Questionnaire (PEFTPAPQ) was used for data collection. The questionnaire was divided into two parts, Part A was on the demographic characteristics of the respondents while Part B was made up of the items that answered the research questions. Four point scale as Never (1) Often (2) Occasionally (3) and always (4) was the key used to elicit information on the physical exercise, feeding and toileting practices among aged people from the respondents.

### **2.5. Validity of the instrument**

The instrument was validated by three experts in the department of Human Kinetics and Health Education of Ebonyi State University, Abakaliki. This is to ensure the appropriateness and clarity of the instrument and proper wording of items to the respondents.

### **2.6. Reliability of the instrument**

The reliability of the instruments was established using Cronbach alpha and Guttman Split-Half co-efficient. The reliability co-efficient of 0.89 was obtained which showed that the reliability co-efficient was above 0.60 hence the instruments was reliable and good for this study. This was in line with Ogbazi and Okpala, who observed that if co-related coefficient obtained in an instrument for data collection in a study is up to 0.60 and above, the instrument was good enough for the study hence used for data collection [36].

## 2.7. Method of Data Collection

Prior to the distribution of questionnaires to the respondents, formal introduction of the study was given by the researchers and informed consent obtained from all the prospective participants. Data was collected by administering 395 copies of the questionnaire to the respondents who are aged from 51-. It was administered face to face by the researchers. The items of the questionnaire were organized to elicit responses from the participants without any bias. Out of 395 copies of questionnaire distributed, 320 copies were returned.

## 2.8. Data Analysis

In analyzing the data, Mean and standard deviation were the statistical tools used to analyse the generated data. A criterion mean of 2.5 and above was set for the study. Hence any mean that is up to 2.5 was high and an indication of high practices while below 2.5 is an indication of low practices among the aged. The hypotheses were tested at 0.05 alpha level significance. The results were presented using tables.

## 3. Results

**Table 1** The mean rating of physical activities among aged people in Ebonyi State

S/N	Physical Activities among Aged People	X	SD	Decision
1	Aged people usually engage in walking or hiking.	3.12	0.78	Agree
2	Aged people usually engage in Dancing.	3.25	0.81	Agree
3	Aged people usually engage in Swimming.	1.96	1.33	Disagree
4	Aged people usually engage in Water aerobics.	1.87	0.46	Disagree
5	Aged people usually engage in Jogging or running.	3.25	0.81	Agree
6	Aged people usually engage in Aerobic exercise classes.	3.18	0.79	Agree
	Overall Mean	2.77		

Table 1 showed the mean responses of physical activities among aged people in Ebonyi State indicated. The result from the table showed an overall mean of 2.77 which indicated high practice of physical activities among the aged. Specifically, the table shows that item 1, 2,3,5 6 indicated high practices of physical activities among aged. This means that aged people in Ebonyi state do participate in physical exercise. On the other hand, item 3 and 4, indicated that aged people do not engage in Swimming, and also aged people do not engage in water aerobics as their clusters mean falls below the criterion mean of 2.5.

**Table 2** The mean rating of the feeding practices among aged people in Ebonyi State

S/N	Feeding Practices	X	SD	Decision
1	Aged people usually take soft food since they have difficulties in swallowing	3.12	0.78	Agree
2	Aged people usually loose of appetites	3.25	0.81	Agree
3	Aged people usually engage in alcoholism which affects their nutritional intake	3.18	0.79	Agree
4	Aged people usually drink enough water	1.87	0.46	Disagree
5	Aged people usually avoid some foods	3.25	0.81	Agree
6	Aged people usually feed themselves without aid	3.18	0.79	Agree
	Overall Mean	3.02		

The table showed the mean rating of the feeding practices among aged people in Ebonyi State. The table revealed the overall mean of 3.02 which indicated that there is high feeding practices among aged people in Ebonyi State. Specifically, items 1, 2, 3, 5 and 6 mean scores fall above 2.5. This show high feeding practices of aged people in Ebonyi State. The

table further indicated that items 4 which stated that aged people drink enough water with mean 1.87 were below the decision mean of 2.5.

**Table 3** Mean rating of the toileting practice among aged people in Ebonyi State

S/N	Toileting Practice among Aged People	$\bar{x}$	SD	Decision
7	Most aged people like using bushes for defecation	3.33	0.83	Agree
8	Most aged people do not use toilet roles after toilet	3.24	0.84	Agree
9	Most aged people do not wash their hands after defecation	3.12	0.78	Agree
10	Most aged people use open latrine	3.25	0.81	Agree
11	Most aged people do not usually flush to septic tanks	3.18	0.79	Agree
12	Most aged people do not always flush to pit latrines	3.25	0.81	Agree
13	Most aged people use grasses and bush leaves for wiping after defecation	3.18	0.79	Agree
	Overall Mean	3.22	1.12	Agreed

The table showed the overall mean 3.22 of the toileting practice among aged people in Ebonyi State. This shows that aged people in Ebonyi state engage in adequate toileting practices. The table further show that all the 7 items were with the mean scores above 2.5. This means that there were high toileting practice among aged people in Ebonyi State.

#### 4. Discussion

Result from Table 1 shows high practice of physical activities among aged people in Ebonyi State. The study showed that aged people highly engage in physical activities like walking or hiking. Walking is very or important in maintaining bones and muscles. This result is in accordance with the study who noted that physical activities like walking around is very important to aged people [37]. The result from the table showed that aged people usually engage in dancing. This result is in accordance with WHO that noted that just like walking, dancing is very crucial in mental and bodily exercise among aged people [6]. The result from the table indicated that aged people usually engage in jogging or running and aged people usually engage in Aerobic exercise classes. These results were in accordance with the study who noted that juggling and aerobic exercise can be veritable for aged people [37]. The result from the table further revealed that the respondents disagreed that aged people usually engage in swimming usually water aerobics. This result could be as a result of high cost of public swimming pools in the area and the inability of the aged to engage in such perceived luxurious life. However, the findings is in line with the study who observed that aged people scarcely engage in water aerobics [12].

Result from table 2 indicated that there is high feeding practices among aged people in Ebonyi State. This study is line with the study who revealed that most aged people eat variety of nutritious food including soft foods [38]. The result from the study further revealed that aged people usually engage in alcoholism which affects their nutritional intake, aged people in Abakaliki usually drink enough water, aged people usually avoid some foods and that aged people usually feed themselves without aid. These results were in accordance with a study who noted that aged people usually drink enough water, and also usually avoid some foods including feeding themselves without aid [22].

Table 3 shows that there were high toileting practice among aged people in Ebonyi State. Result from the table showed that most aged people like using bushes for defecation. Bush defecation is rampant is most rural areas. This result is in accordance with the study of Teshome, Yallem Mulualem, Engdaw, who noted that most aged people prefer using bushes for defecation [39]. The result from the study also indicted that most aged people do not use toilet roles after toilet. This result is in line with the study who noted that most aged people use bush leaves and grasses for wipes after toilets [40]. This result further indicated that most aged people do not wash their hands after defecation, most aged people use open latrine and that most aged people do not usually flush to septic tanks [41]. These results were in line with other study who noted that poor toileting hygiene practiced by most aged people include inability to flush septic tanks, wash hand and bathing after using toiletry facilities. Finally, the result from the study showed that most aged people do not always flush to pit latrines and that aged people use grasses and bush leaves for wiping after defecation. These results were also in tandem with the study of who noted that poor sanitary is one of the major factors affecting bladder practices [41].

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## 5. Conclusion

The importance of physical activities, adequate feeding and toileting among the aged people can never be over emphasized. Adequate feeding/nutrition, physical activities and proper toileting were part of healthy life styles and an important determinant of healthy living of elderly people in the society. This underscores the need for adequate education through seminar, workshop and conference on important of physical activities, proper feeding and toileting among aged people particularly in Ebonyi State, Nigeria. The government should ensure the provision of recreational centres for the aged, provision of effective and functional health care centres for the aged in Ebonyi State where they will be trained on the need for effective feeding practices and there is need for educating aged people on effective toileting practices.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

The author decides that no conflict of interest occurred while conducting this research and writing this article.

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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