



## Full Length Research Article

### FUNCTIONAL ABILITY ON SELECTED ACTIVITIES OF DAILY LIVING AMONG HEALTHY OLDER COMMUNITY-DWELLING ADULTS IN SOUTHEAST NIGERIA

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#### ABSTRACT

**Background:** With ageing, functional health and physical performances decline, thus restricting an elderly person's ability from successfully carrying out the normal activities of daily living.

**Aim:** To determine the functional ability on selected activities of daily living among healthy older community-dwelling adults in Southeast Nigeria and to verify the null hypotheses of no significant difference on ADL with selected socio-demographic variables.

**Methods and Materials:** The descriptive survey research method was adopted. A total of 91 healthy older community-dwelling adults were conveniently sampled for the study. Observation, interview method and questionnaire were used for data collection. The descriptive statistic was used to analyze the data. All the analyses were done using SPSS version 18.

**Results:** The result showed that the functional ability on selected activities of daily living among healthy older community-dwelling adults in Southeast Nigeria is high. Statistically, the study revealed significant differences between the variables of the respondents on the selected activities of daily living.

**Conclusion:** The healthy older community-dwelling adults in Southeast Nigeria have high functional ability on the selected activities of daily living. This satisfactory finding indicates that majority of the older adults are functionally independent in relation to activities of daily living.

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#### INTRODUCTION

Globally, the world population of older adults is experiencing rapid increase. Research evidence revealed that in both developed and developing countries of the world, people who are above 60 years of age are recently out numbering persons in other age categories (Ugwu *et al.*, 2013). For instance, in India, the proportion of elderly was 8 per cent in 2012, which is expected to increase to 19 per cent in 2050 (Population Ageing and Development, 2012). Similar report also indicated that in the next forty years, the number of persons aged 60 years and above in the world is estimated to increase by one and a quarter billion with a particular rapid increase in the number of oldest-old citizens (Ugwu, 2016b). In addition, world health organization (2002) reported that the largest increase of persons aged 65 years and above is expected to occur in developing countries of the world such as Nigeria. Hence, the population is projected to increase by almost triple, from approximately 249 million in 2000 to an estimated 690 million in 2030.

These projections were attributed to other factors including advancement in technology and improved access to medical care services. Naturally, ageing is accompanied by a progressive loss of plasma protein, resulting to a substantial decline in resistance to infections and increased risks of acute and chronic conditions including high blood pressure (Ugwu *et al.*, 2016a) and sarcopenia (Rosenberg, 1997). There is also evidence that the elderly persons are the most vulnerable groups of the society having more chances of chronic diseases, infections as well as disabilities (Sandeep, 2016). With ageing, functional health and physical performances decline, thus restricting an elderly person's ability from successfully carrying out the normal activities of daily living. It is evidenced that a good number of older adults lose the ability to live life independently due to weakness, fragility, musculoskeletal disorders as well as mental health problems (WHO, 2012), thus placing them on functional dependency – the condition requiring assistance from the professionals, friends or relatives. The functional ability of an older adult which could be high or low in relation to activities of daily living is a vital key in determining the functional health status in old age. Contextually, the daily activities of self-care such as sweeping, toileting, washing, cooking, transferring, among

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others, within the place of residence of an individual, the outdoor environments or both is referred to as activity of daily living. To a great extent, the measure of activities of daily living justifies the quality of health and physical performance in old age. However, healthy ageing is dependent upon the ability of the older adult to function independently. A lot of studies have focused on the activities of daily living among the elderly, although data regarding the functional abilities of the healthy older community-dwelling adults particularly in developing countries such as Nigeria is still inadequate. Thus the need for the present study which provided answer to: What is the functional ability on activities of daily living among healthy older community-dwelling adults in Southeast Nigeria? This was the question the present study filled.

## MATERIALS AND METHODS

The study falls within the paradigm of the descriptive survey research method. A total of 91 healthy older community-dwelling adults were conveniently sampled and used for the study. The study assessed some selected activities of daily living via: feeding, bathing, sweeping, toileting, continence, transferring, dressing, washing and cooking. Observation, interview method and questionnaire were used for data collection. The questionnaire focused on the selected ADL with four point response options.

That is to say that, each of the items has four options for selection. The descriptive statistics involving frequency, percentage, mean scores, standard deviation, t-Test and analysis of variance were used to analyze the data. All the analyses were done using SPSS version 18. The cut-off point for the weighted mean was 2.5 accrued from the four-point response options, hence, any item that weighed 2.5 and above signifies high functional ability while any item less than 2.5 implies low functional ability on selected activities of daily living. The null hypotheses were verified at 0.05 level of significance.

## RESULTS

Data in Table 1 shows the frequency and percentages of socio-demographic profile of healthy older community-dwelling adults in Southeast Nigeria. Table 2 shows that the average mean score 2.65 and standard deviation .094 on selected activities of daily living among healthy older community-dwelling adults is above the cut-off point of 2.5 indicating high functional ability. Still in Table 2, it is found that bathing (2.42, SD =.091); sweeping (2.44, SD =.011) and transferring (2.11, SD =.512) had mean values below the cut-off point of 2.5. This implies that the respondents have low functional ability on bathing, sweeping and transferring. However, the respondents show high functional abilities on feeding,

**Table 1. Socio-demographic Profile of Healthy Older Community-Dwelling Adults (n = 91)**

| <b>Variables</b>        | <b>f (%)</b> |
|-------------------------|--------------|
| <b>Gender</b>           |              |
| Male                    | 44 (48.4)    |
| Female                  | 47 (51.6)    |
| <b>Age in years</b>     |              |
| 65-74                   | 45 (49.5)    |
| 75-84                   | 24 (26.4)    |
| 85+                     | 22 (24.1)    |
| <b>Religion</b>         |              |
| Christianity            | 52 (57.1)    |
| Muslim                  | 19 (20.9)    |
| Pagan                   | 20 (22.0)    |
| <b>Occupation</b>       |              |
| Employed                | 8 (8.8)      |
| Farmer                  | 57 (62.6)    |
| Businessman             | 26 (28.6)    |
| <b>Marital Status</b>   |              |
| Married                 | 61 (67.0)    |
| Divorced                | 7 (7.7)      |
| Widowed                 | 23 (25.3)    |
| <b>Education Type</b>   |              |
| Informal                | 25 (27.5)    |
| Formal                  | 66 (72.5)    |
| <b>Living Condition</b> |              |
| With Family             | 71 (78.0)    |
| Alone                   | 11 (12.1)    |
| With Relatives          | 9 (9.9)      |

Table 2. Mean Responses on Selected Activities of Daily Living among Healthy Older Community-Dwelling Adults (n = 91)

| Selected ADL | Mean Value | Standard Deviation | Remark                  |
|--------------|------------|--------------------|-------------------------|
| Feeding      | 2.95       | .017               | High Functional Ability |
| Bathing      | 2.42       | .091               | Low Functional Ability  |
| Sweeping     | 2.44       | .011               | Low Functional Ability  |
| Toileting    | 2.82       | .028               | High Functional Ability |
| Continenence | 2.68       | .104               | High Functional Ability |
| Transferring | 2.11       | .512               | Low Functional Ability  |
| Dressing     | 2.87       | .043               | High Functional Ability |
| Washing      | 2.67       | .012               | High Functional Ability |
| Cooking      | 2.85       | .027               | High Functional Ability |
| Average Mean | 2.65       | .094               | High Functional Ability |

Table 3. Showing Significant Differences between variables

| Variables        | N  | Mean | Standard Deviation | t-cal | P-value | Remark |
|------------------|----|------|--------------------|-------|---------|--------|
| Gender           |    |      |                    | 1.2   | .07     | *      |
| Male             | 44 | 2.51 | .001               |       |         |        |
| Female           | 47 | 2.45 | .103               |       |         |        |
| Age in years     |    |      |                    | 3.1   | .01     | **     |
| 65-74            | 45 | 2.91 | .010               |       |         |        |
| 75-84            | 24 | 2.62 | .091               |       |         |        |
| 85+              | 22 | 2.41 | .121               |       |         |        |
| Religion         |    |      |                    | 2.0   | .06     | *      |
| Christianity     | 52 | 2.54 | .011               |       |         |        |
| Muslim           | 19 | 2.60 | .901               |       |         |        |
| Pagan            | 20 | 2.72 | .232               |       |         |        |
| Occupation       |    |      |                    | 4.1   | .17     | *      |
| Employed         | 8  | 2.80 | .043               |       |         |        |
| Farmer           | 57 | 2.62 | .065               |       |         |        |
| Businessman      | 26 | 2.80 | .071               |       |         |        |
| Marital Status   |    |      |                    | 1.0   | .82     | *      |
| Married          | 61 | 2.67 | .081               |       |         |        |
| Divorced         | 7  | 2.71 | .009               |       |         |        |
| Widowed          | 23 | 2.53 | .061               |       |         |        |
| Education Type   |    |      |                    | 2.1   | .02     | **     |
| Informal         | 25 | 2.70 | .043               |       |         |        |
| Formal           | 66 | 2.72 | .031               |       |         |        |
| Living Condition |    |      |                    | 1.4   | .26     | *      |
| With Family      | 71 | 2.78 | .069               |       |         |        |
| Alone            | 11 | 2.51 | .083               |       |         |        |
| With Relatives   | 9  | 2.35 | .006               |       |         |        |

\*Significant at 0.05 level; \*\*Not Significant at 0.05

toileting, continence, dressing, washing and cooking with the mean values above the cut-off point of 2.5. Data in Table 3 reveal the statistical significant differences between the variables of the respondents on the selected activities of daily living. As contain in the Table 3, significant differences exist on the variables of gender; religion; occupation marital status and living condition (P-value > 0.05) of the respondents while age in years and education type show no significant difference (P-value < 0.05).

## DISCUSSION

The present study reveals substantial evidence that the functional ability on the selected activities of daily living among healthy older community-dwelling adults in Southeast Nigeria is high. The study also indicates that significant differences exist between variables of the respondents in relation to the selected activities of daily living. The finding is quite expected because living a healthy life and maintaining functional independent in old age is among the key priorities of every adult (Ugwu *et al.*, 2013). This result is in accordance with Sandeep (2016) in a descriptive cross sectional survey research study done among 40 elderly people in rural area of Bahupura.

The study found that there was full functioning ability with mean score of 1 in dressing and continence and with 0.97 means score in bathing, toileting and feeding. Similarly, Srivastava *et al.* (2014) who conducted a cross sectional study on 400 elderly in both rural and urban Lucknow city, found that 90.6 per cent of males and 98.4 per cent of had the ability of toileting and the ability for toileting in rural areas are far better than urban areas. About 89.2 per cent of males and 95.2 percent of elderly females had the ability for transferring. In all, about 83.1 per cent of the elderly males and 92 per cent of elderly females had the ability of self control over urination and defecation.

In all, 97.2 per cent of elderly males and 99.5 per cent of elderly females had the ability of self feeding. Furthermore, the present study also agrees with Harinder and Sukhmeet (2014) who carried out a cross sectional descriptive study over ADL of elderly in Urban community of North India. The study revealed that there was no difference in activities of daily living between the males and females. The study also showed that dependency increased with increasing age in both male and female elderly.

## Conclusion

Based on the relevant literature reviewed and the major findings of the study, it is concluded that the functional ability on the selected activities of daily living among healthy older community-dwelling adults in Southeast Nigeria is high. Secondly, there is statistically significant difference between variables of the respondents in relation to the selected activities of daily living.

The outcome of this descriptive survey is satisfactorily encouraging, thus, indicating that the majority of the older adult in the study location are functionally independent. The present study is not an in-depth survey. However, only 91 healthy older community-dwelling adults conveniently selected were assessed on the activities of daily living.

## Recommendation

- There is need to carry out in-depth survey for a deeper revelation and comprehensive result. This would encourage empirical generalization.
- The Nigerian government as well as policy makers should adopt the results of the present study in formulating new policies that would encourage and strengthen the older adults in maintaining optimum functional independent in old age.
- There is need for collaborative efforts of professionals, curriculum planners, health institutions, universities, public and private sectors in modifying the training packages in preparing their trainees who are usually assigned with the responsibility of attending to older adults. Such modifications would no doubt help in strengthening the work force as well as improving skills and competencies needed for effective and efficient discharge of duties.
- Since functional abilities decline with age, there is need for every state of the federation to have a functional hospice home with highly trained and experienced professionals. The existence of such healthcare facility would be instrumental in ameliorating the multiple functional dependencies that are common among the very oldest old adults.

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