

# Factors Influencing Healthcare Facility Choice Among Older Adults in Ekiti, Nigeria: Implications for Health Literacy

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## ABSTRACT

**Introduction:** Healthcare facility choice among older adults is a reflection of individual capacities and health system characteristics. Understanding the key determinants of this choice is very important for improving access and equity in healthcare delivery especially low- and middle-income countries with limited resources.

**Objective:** This study was designed to identify the sociodemographic and health system factors associated with healthcare facility choice among older adults in Ekiti State, Southwest Nigeria.

**Methods:** A hospital-based cross-sectional study was conducted among community dwelling older adults aged 60 years and above. Data were collected using structured interviewer administered questionnaire. Information sought included sociodemographic characteristics, healthcare utilization patterns, and facility choice. Healthcare facilities were classified into primary, secondary/tertiary, and private hospitals. Inferential statistics were performed to identify factors associated with facility choice.

**Results:** Secondary/tertiary public hospitals were the most commonly utilized among older adults. Educational attainment was the only sociodemographic factor significantly associated with healthcare facility choice with higher levels of education associated with greater use of secondary/tertiary facilities.

**Conclusion:** Educational attainment plays an important role in determining healthcare facility choice among older adults in Ekiti State. This underscores the importance of health literacy in later life. Interventions aimed at equitable utilization of public health facilities should incorporate health literacy and the three-tier nature of Nigerian healthcare system.

**Keywords:** Healthcare facility choice; older adults; influencing factors; health literacy.

## INTRODUCTION

Increasing global population of older adults has drawn attention to the level of functionality while aging. Health status, because of its contribution to individual's level of independence, has been recognized as a major determinant of 'healthy ageing' which has been a major focus of the World

Health Organization in recent time. Healthy aging involved optimizing opportunities for improvement and preservation of health both physical, mental and social aspects. Healthy aging policy framework should be tailored towards the maintenance of health.<sup>1,2</sup> Access to healthcare is very important among older adults because of astronomical increase in the prevalence of chronic morbidity with advancing age.<sup>3-5</sup> Aging is a major risk factor for chronic disease and the existent of multiple chronic diseases in an individual is termed multimorbidity.<sup>6-8</sup> Multimorbidity increases both healthcare cost and burden on healthcare resources. Chowdhury et al found an overall prevalence of multimorbidity to be 37.2%. Regionally, the highest prevalence was in South America with a prevalence of 45.7%, followed by North America (43.1%), Europe (39.2%), and Asia (35%). A meta-analysis conducted in Nigeria found a prevalence of multimorbidity that ranges between 27% and 74%.<sup>9-12</sup>

Unlike the younger age group, many factors have been identified as constituting barriers to healthcare service utilization among older adults.<sup>13,14</sup> Barriers have been classified into supply and demand factors. The supply factors include geographic factors like accessibility and mobility while the demand factors include socioeconomic factors and willingness to go to the hospital during illness. Mai et al identified three major barriers to health services utilization among older adults and these are inconvenience in movement, insufficient money, and unwillingness to go to the hospital.<sup>15,16</sup> Education has been found to play significant role in the choice of healthcare facility among older adults.<sup>17</sup> However, there is paucity of literature on this subject in Nigeria and this will limit the availability of empirical evidence for policy formulation for healthcare provision for older adults.

Healthcare facilities were categorized into primary, secondary/tertiary, and private facilities. While the primary health centre still maintains its functional identity, same cannot be said of the secondary and tertiary facilities. Patients often do not observe the

hospital hierarchy and the referral system is not observed. Cases that supposed to be managed at the primary and secondary facilities often present first at the teaching hospitals which supposed to take referrals from the lower hospitals and this makes it near impossible to separate the secondary from tertiary healthcare facilities in term of clinical duties.<sup>18</sup>

## **MATERIALS & METHODS**

### **Study design and setting**

This was a descriptive cross-sectional design conducted at the Outpatients Clinic of the Department of Family Medicine, Ekiti State University Teaching Hospital (EKSUTH), Ado-Ekiti, located in southwest Nigeria. EKSUTH is the training healthcare institution for the training of resident doctors and undergraduate medical and allied health professionals by the College of Medicine, Ekiti State University, providing specialized care to residents of Ekiti State and the neighbouring states of Osun, Ondo, Kwara, and Kogi. The outpatients' clinic in the Department of Family Medicine attends to all age groups and runs a special clinic for the care of older adults making it an ideal setting for assessing the burden of health service utilization among older population.

### **Study Population**

The study population consisted of older adults aged 60 years and above who visited the outpatient clinic between June to August 2025. Patients included in the study were 286 older adults who met the age requirement and consented to participate in the study during the study period. They were consecutively selected over the study period.

### **Data Collection and analysis**

Information was obtained from respondents with the aid of an interviewer administered questionnaire. The data collected included the patient's sociodemographic characteristics and the preferred healthcare facility when the respondent needed healthcare.<sup>18</sup> The monthly income was stratified into first, second, third, and fourth

quartiles corresponding to 25%, 50%, 75% and above 75% respectively during the analysis based on the range of income among the respondents. The data analysis was done with the aid of the Statistical Package for Social Sciences version 25. Data were analyzed and reported as percentage and proportion while Chi square was used to test significance between variables. Further analysis was done through logistic regression. Analyzed data were displayed in tables and charts.

## RESULTS

A total of 286 older adults aged 60 years and above were recruited into this study. The largest proportion of respondents (72.2%) were within 60 – 64-year age range, male to female ratio was 1:1.02 while 78.1% were married.

### Distribution of respondents based on choice of facility and associated factors

Secondary/tertiary healthcare facilities were mostly patronized by the older adults with far less for primary healthcare facility. Private healthcare facility had the least patronage. (Figure 1) Only the level of education was significantly associated with the choice of healthcare facility among respondents with more educated older adults preferring higher level of healthcare facility. (Table 1) Preference for secondary/tertiary health care facility cut across all age group. There was a slightly higher PHC utilization among female gender while patronage of private health facility was generally low even among the wealthiest older adults. Having adjusted for age, gender, and income, primary, education confers 3.51 times higher odds of choosing secondary/tertiary healthcare facility when compared with those without formal education. Similarly, secondary and tertiary education confer 5.07 and 2.94 odds of choosing tertiary healthcare facility when compared with no formal education respectively. (Table 2)

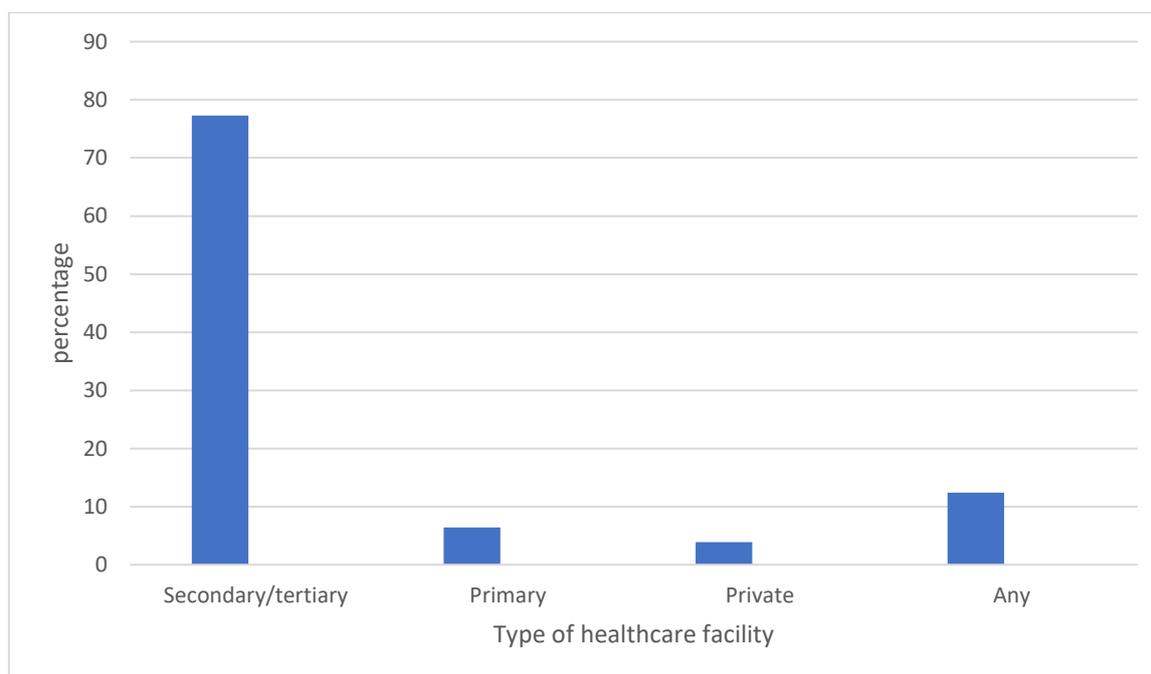


Figure 1: Distribution of subjects based on choice of healthcare facility

Table 1: Choice of facility based on sociodemographic characteristics

| Variable   | N  | secondary/tertiary<br>N (%) | Primary<br>N (%) | Private<br>N (%) | Any<br>N (%) | $\chi^2$ | P-value |
|------------|----|-----------------------------|------------------|------------------|--------------|----------|---------|
| <b>Age</b> |    |                             |                  |                  |              |          |         |
| 60-64      | 36 | 26(72.2)                    | 4(11.1)          | 2(5.6)           | 4(11.1)      | 4.36     | 0.996   |
| 65-69      | 88 | 67(76.1)                    | 7(8.0)           | 4(4.5)           | 10(11.4)     |          |         |

|                          |     |           |          |         |          |       |        |
|--------------------------|-----|-----------|----------|---------|----------|-------|--------|
| 70-74                    | 107 | 80(74.8)  | 7(6.5)   | 5(4.6)  | 14(13.1) |       |        |
| 75-79                    | 32  | 26(81.3)  | 1(3.1)   | 1(3.1)  | 4(12.5)  |       |        |
| 80-84                    | 7   | 4(57.1)   | 1(14.3)  | 1(14.3) | 1(14.3)  |       |        |
| ≥85                      | 16  | 12(75.0)  | 1(6.2)   | 1(6.2)  | 2(12.5)  |       |        |
| <b>Gender</b>            |     |           |          |         |          |       |        |
| Male                     | 117 | 91(77.8)  | 6(5.1)   | 6(5.1)  | 14(12.0) | 0.31  | 0.577  |
| Female                   | 169 | 127(74.9) | 16(9.4)  | 5(2.9)  | 21(12.1) |       |        |
| <b>Marital status</b>    |     |           |          |         |          |       |        |
| Married                  | 137 | 107(78.1) | 7(5.1)   | 6(4.4)  | 17(12.4) | 7.36  | 0.621  |
| Widowed                  | 115 | 87(75.7)  | 13(11.3) | 4(3.5)  | 11(9.6)  |       |        |
| Separated/ Divorced      | 34  | 25(73.5)  | 2(5.9)   | 1(2.9)  | 6(17.7)  |       |        |
| <b>Income (Quartile)</b> |     |           |          |         |          |       |        |
| Q1                       | 71  | 56(78.9)  | 6(8.5)   | 1(1.4)  | 8(11.3)  | 11.92 | 0.217  |
| Q2                       | 72  | 58(80.6)  | 4(5.6)   | 2(2.8)  | 8(11.1)  |       |        |
| Q3                       | 71  | 54(76.1)  | 7(9.9)   | 2(2.8)  | 8(11.3)  |       |        |
| Q4                       | 72  | 50(69.4)  | 5(6.9)   | 6(8.3)  | 11(15.3) |       |        |
| <b>Education</b>         |     |           |          |         |          |       |        |
| No formal                | 59  | 32(54.2)  | 6(10.2)  | 1(1.7)  | 20(33.9) | 54.08 | <0.001 |
| Primary                  | 62  | 50(80.6)  | 5(8.1)   | 1(1.6)  | 6(9.7)   |       |        |
| Secondary                | 98  | 84(85.7)  | 5(5.1)   | 1(1.0)  | 8(8.2)   |       |        |
| Tertiary                 | 67  | 52(77.6)  | 6(9.0)   | 8(11.9) | 1(1.5)   |       |        |

**Table 2: Impact of educational level on the choice of secondary/tertiary healthcare facility**

| Educational level   | N  | Secondary/tertiary | Non-secondary/tertiary | Adjusted | P-value |
|---------------------|----|--------------------|------------------------|----------|---------|
|                     |    | N (%)              | N (%)                  |          |         |
| No formal education | 59 | 32 (54.2)          | 27 (45.8)              | 1.00     |         |
| Primary             | 62 | 50 (80.6)          | 12 (19.4)              | 3.51     | 0.001   |
| Secondary           | 98 | 84 (85.7)          | 14 (14.3)              | 5.07     | <0.001  |
| Tertiary            | 67 | 52 (77.6)          | 15 (2.4)               | 2.94     | 0.004   |

## DISCUSSION

Secondary/tertiary healthcare facilities were the most patronized by older adults in this study. This is at variance with findings among older adults in India where private healthcare facilities were the most preferred.<sup>19-21</sup> However in China, 50% of older adults preferred district hospitals which are secondary healthcare facilities.<sup>22</sup>

Preference for secondary/tertiary healthcare facility was stable across all age groups. The higher PHC use among females in this study is similar to findings among larger adult population in Spain and Nigeria.<sup>23,24</sup> Finding in this study may reflect greater health system familiarities as many women obtain basic antenatal care, family planning services, and immunization for their children at the primary healthcare centre.

Education was significantly associated with the choice of healthcare facility in this study. Those without formal education demonstrated the least preference for secondary/tertiary healthcare facilities, used

primary healthcare facilities the most, and were the most flexible. A study among older adults in Indonesia demonstrated older adults with higher education were less likely to use primary healthcare services.<sup>25</sup> This may be due to information barrier and therefore less educated older adults may accept any available healthcare facility. There was a sharp increase in preference for secondary/tertiary healthcare facilities among those with primary education with a decrease in flexibility. This may be due to educational exposure as basic literacy may improve facility navigation and preference for what they might expect to offer better healthcare service. The highest preference for secondary/tertiary healthcare facilities and lowest private use was among those with secondary education. This may be a demonstration of stronger institutional trust for perceived quality. While there was a slight decline of the increasing trend of secondary/tertiary hospital use after secondary education, this group shows the

highest preference for private hospitals. This may be a reflection of higher socioeconomic class due to higher income.

The level of income also influences the choice of healthcare facility. The poorer class comprising the first and second quartile paradoxically shows higher preference for the secondary/tertiary healthcare facility while the wealthiest demonstrated more flexibility. A study by Nguyen et al in a study among older adults in Vietnam, the proportion of older patients in central hospital and provincial hospitals were higher among the poorest health quartile while a large proportion of users at the district hospitals and CHCs were among the average wealth quartile. However, systemic review on the impact of socioeconomic status and the use of primary healthcare among older adults in low- and medium-income countries by Gao et al demonstrated inequalities in the utilization of primary healthcare facilities among older people. However improvements were noted in some low income countries due to health reforms.<sup>26,27</sup> This probably shows that high income enables multifacility navigation, the reason behind the seemingly paradoxical preference for secondary/tertiary hospital instead of the primary healthcare facilities by the poorer group is a subject of further research.

Considering the impact of educational level on the choice of healthcare facility, primary education confers 3.5 times higher odds of choosing secondary/tertiary healthcare facilities compared with those without formal education while secondary and tertiary education have 5.07- and 2.94-times higher odds. Similar findings were reported by Laksono et al among older adults in Indonesia.<sup>17</sup> This shows non-linear pattern with a peak at secondary education level. The peak observed at the secondary education level may probably reflect greater flexibility observe among the tertiary education group which may result from more financial freedom from higher income which increased their ability to utilize private hospitals.

Health literacy may play a role in the findings in this work and this can be a valuable intervention in order to minimize the impact of formal educational attainment. Finding from Netherlands has suggested health literacy as a mediating factor in the association between education and out-of-hours primary care service use among older adults.<sup>28</sup>

## **CONCLUSION**

In view of the paucity of literature that directly address this subject among older adults in Nigeria, findings from this work will bridge knowledge gap, stimulate further research and be valuable for policy formulation towards ensuring equitable healthcare facility utilization. Health literacy among older adults should be prioritized by the government and healthcare institutions.

## **Limitation**

Being a hospital-based study, this research needs to be carried out as a multi-centre study before the findings can be generalized among the general population. However, it has generated information that will be valuable to policy makers and the healthcare workers at the primary healthcare level.

## **Declaration by Authors**

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