

# Assessment of Geriatric Hospital Facilities for Elderly Patients in Southwestern Nigeria

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**Abstract-** *This study examined elderly patients' assessment of facilities in selected geriatric hospitals in Southwestern Nigeria, focusing specifically on accessibility, functionality, adequacy, satisfaction and facility-related challenges. A descriptive survey and case study approach was adopted, using structured questionnaires and direct observation across four purpose-built geriatric hospitals: Ijesaland Geriatric Centre, Ilesa; Chief Tony Anenih Geriatric Centre, UCH Ibadan; JBS Gerontology Centre, Lekki; and LUTH Geriatric Services, Lagos. Of the 229 questionnaires administered, 216 were completed and returned, representing a 94.3% response rate. Findings show that accessibility was only moderate: ramps and handrails recorded the highest mean score ( $\mu = 3.16$ ), while toilets ( $\mu = 2.54$ ) and elevators ( $\mu = 2.69$ ) were weakest. Functionality was strongest for emergency units ( $\mu = 3.42$ ) and pharmacy services ( $\mu = 3.31$ ), but wheelchairs recorded the lowest score ( $\mu = 2.89$ ). Adequacy was highest for lighting ( $\mu = 3.50$ ) and lowest for toilets ( $\mu = 2.47$ ). Satisfaction was highest for pharmacy services (4.35), directional signage (4.18) and parking (4.05), while accessible toilets (2.96) and elevators/lifts (2.61) attracted dissatisfaction. Major challenges included poor toilet conditions (66.7%), prolonged waiting time (62.0%), inadequate seating (58.3%) and restricted movement (51.9%). The study concludes that the selected geriatric hospitals provide essential healthcare facilities but remain only moderately responsive to elderly users' accessibility, functionality and adequacy needs. It recommends prioritising accessible sanitation, vertical mobility, mobility aids, waiting facilities, circulation, maintenance and consistent age-friendly facility management.*

**Keywords:** *geriatric hospitals, elderly patients, accessibility, functionality, adequacy, user satisfaction, southwestern nigeria*

## I. INTRODUCTION

Geriatric healthcare facilities serve a population whose physical, sensory and functional capacities may change significantly with age. The World Health Organization identifies supportive environments as

an important component of healthy ageing because the ability of older adults to maintain functional capacity depends partly on the interaction between individual abilities and the environments in which they live and receive care (WHO, 2015; WHO, 2024). In hospital settings, this makes the physical provision and usability of facilities important to safety, dignity, mobility and overall patient experience. Features such as accessible circulation, suitable toilets, clear wayfinding, handrails and adequate seating are therefore not merely supplementary elements but components of age-responsive healthcare environments (Steinfeld and Maisel, 2012; Hignett and Lu, 2016).

In Nigeria, however, geriatric healthcare provision remains uneven. Studies have reported inadequate accessibility, poor circulation, limited support spaces and weak compliance with age-friendly or universal-accessibility principles in healthcare facilities (Faronbi et al., 2019; Ogunyemi et al., 2023; Unuebho and Oghifo, 2024). Existing geriatric services often operate within facilities that were not comprehensively developed around the mobility, sensory and functional needs of older adults. This is important because the presence of a facility does not necessarily mean that it is adequate, accessible or functional for elderly users. A pharmacy may be available but difficult to reach; a toilet may exist but remain unsuitable for users with mobility limitations; and a waiting area may be provided without sufficient seating or circulation space.

The concern is particularly relevant in Southwestern Nigeria, where the study thesis identifies a limited evidence base on the combined accessibility, functionality, adequacy, satisfaction and challenges associated with geriatric hospital facilities across multiple institutions. The present paper therefore focuses exclusively on Objective Three of the study:

to examine elderly people's assessment of hospital facilities in terms of accessibility, functionality, adequacy, satisfaction and challenges. The objective provides a focused basis for evaluating how existing facilities are experienced by elderly patients without extending the analysis to demographic profiling, health outcomes or a proposed building design.

## II. LITERATURE REVIEW

Facility assessment in geriatric healthcare requires more than determining whether spaces and equipment are present. Adequacy concerns whether the quantity and provision of facilities are sufficient for the users and services they are expected to support, while functionality concerns whether those facilities operate effectively in everyday use. Accessibility refers to the ability of users to reach, enter, navigate and use spaces and services safely. These dimensions are closely related because the usefulness of a hospital facility depends on the extent to which it can be accessed and used effectively by the intended population (Penchansky and Thomas, 1981; WHO, 2015). For older adults, functional limitations make this relationship more pronounced because apparently ordinary barriers can become significant obstacles to independent movement and healthcare use.

Age-friendly healthcare environments are expected to reduce environmental barriers and support safe mobility, independence and dignity. Universal design principles emphasise barrier-free access, readable information, appropriate circulation dimensions and facilities that can be used by people with different physical abilities (Steinfeld and Maisel, 2012). In hospital environments, patient-safety research similarly identifies circulation, wayfinding, equipment, furniture, lighting and environmental conditions as important components of safe and usable care settings (Hignett and Lu, 2016). Research on healthcare environments also indicates that the physical setting affects patient experience and wellbeing, with supportive environments associated with improved comfort and reduced environmental stress (Ulrich et al., 2008; Huisman et al., 2012).

Evidence from Nigeria reinforces the need for facility-level assessment. Tanyi et al. (2020) showed that older persons' perceptions of hospitals are influenced by the age-friendliness of their physical environment, while studies on accessibility in Nigerian hospitals have reported weaknesses in ramps, circulation, toilets and other universal-access features (Unuebho and Oghifo, 2024). The present study builds on this literature by examining several dimensions of facility performance together rather than treating accessibility as an isolated issue. This includes patients' satisfaction with available facilities and the practical challenges they experience during hospital use. Such a combined assessment is useful because a hospital may score well on conventional clinical facilities while still performing poorly on age-specific support facilities such as accessible toilets, lifts, mobility aids, seating and relaxation spaces.

## III. METHODOLOGY

The study adopted a descriptive survey research design combined with a case study approach. The focus was exclusively on elderly patients' assessment of geriatric hospital facilities in terms of accessibility, functionality, adequacy, satisfaction and facility-related challenges. The study population comprised elderly patients aged 60 years and above receiving care in purpose-built geriatric hospitals in Southwestern Nigeria. Primary data were obtained through structured questionnaires and direct observation of hospital facilities. The questionnaire captured elderly patients' perceptions of facility performance, while observation supported the assessment of physical provisions such as wards, waiting areas, toilets, mobility-support facilities and other hospital components.

Four purpose-built geriatric hospitals were included through the study's multistage selection process: Ijesaland Geriatric Centre, Ilesha; Chief Tony Anenih Geriatric Centre, University College Hospital, Ibadan; JBS Gerontology Centre, Lekki; and LUTH Geriatric Services, Lagos. The population frame identified 448 elderly persons across the selected institutions. A sample of 143 elderly respondents was determined using Slovin's formula, with the sample

distributed across the hospitals. In the field survey, 229 questionnaires were administered and 216 were properly completed and returned, producing a 94.3% response rate. Data were analysed using frequencies, percentages, mean scores and cross-tabulation, with five-point Likert-scale responses used for the assessment of accessibility, functionality, adequacy and satisfaction.

The scope of the paper was restricted to the third research objective of the parent study. It therefore excluded detailed analysis of the socio-economic profile of respondents, the direct health outcomes of elderly patients and the development of a proposed geriatric hospital. The geographical scope remained the selected geriatric hospitals within Southwestern Nigeria. The study variables were interpreted in relation to the experiences reported by elderly users and the observed condition of facilities.

#### IV. RESULTS AND FINDINGS

##### 4.1 Accessibility of Facilities

The accessibility assessment indicates that the selected geriatric hospitals provide some basic mobility-support features but do not achieve consistent accessibility across all facility categories. As shown in Table 1, ramps and handrails recorded the highest mean score ( $\mu = 3.16$ ), suggesting that horizontal mobility support was comparatively better provided. Waiting areas recorded a mean of 2.92 and signage 2.77, indicating moderate performance. Elevators and toilets recorded lower mean values of 2.69 and 2.54 respectively. These results show that access to key facilities remains more difficult where elderly patients require vertical movement or specially accessible sanitation facilities.

Table 1: Elderly Patients' Assessment of Accessibility of Facilities (n = 216)

| Facility            | Very High | High | Moderate | Low | Very Low | TWV | Mean ( $\mu$ ) |
|---------------------|-----------|------|----------|-----|----------|-----|----------------|
| Ramps and handrails | 28        | 52   | 68       | 46  | 22       | 682 | 3.16           |
| Elevators           | 18        | 34   | 52       | 70  | 42       | 582 | 2.69           |
| Toilets             | 14        | 30   | 48       | 74  | 50       | 548 | 2.54           |
| Waiting areas       | 22        | 44   | 62       | 54  | 34       | 630 | 2.92           |
| Signage             | 20        | 38   | 56       | 60  | 42       | 598 | 2.77           |

The pattern demonstrates that physical accessibility is uneven rather than absent. The relatively stronger score for ramps and handrails is consistent with their basic role in supporting movement, but the lower ratings for elevators and toilets reveal more critical gaps. For older users with reduced mobility, difficulty with vertical circulation can limit access to parts of a hospital, while inaccessible toilets can affect dignity and independent use. The findings therefore suggest that the hospitals perform better in basic horizontal access than in comprehensive accessibility across all components of the healthcare environment. This is consistent with the emphasis of universal design literature on continuous, equitable access rather than isolated accessibility features (Steinfeld and Maisel, 2012).

##### 4.2 Functionality of Facilities

The functionality results show that core clinical services were generally perceived to operate better

than mobility-support facilities. Emergency units recorded the highest mean score of 3.42, followed by pharmacy services at 3.31 and physiotherapy units at 3.13. Diagnostic laboratories recorded 3.03, while wheelchairs recorded the lowest mean of 2.89. The results indicate that the hospitals are reasonably functional in delivering core healthcare services but less effective in providing and maintaining assistive facilities that support elderly patients' mobility.

Table 2: Functionality of Facilities in Selected Geriatric Hospitals (n = 216)

| Facility              | Very High | High | Moderate | Low | Very Low | TWV | Mean ( $\mu$ ) |
|-----------------------|-----------|------|----------|-----|----------|-----|----------------|
| Pharmacy              | 36        | 58   | 62       | 40  | 20       | 714 | 3.31           |
| Wheelchairs           | 24        | 42   | 58       | 54  | 38       | 624 | 2.89           |
| Physiotherapy unit    | 30        | 50   | 64       | 46  | 26       | 676 | 3.13           |
| Emergency unit        | 42        | 64   | 56       | 34  | 20       | 738 | 3.42           |
| Diagnostic laboratory | 34        | 54   | 60       | 44  | 24       | 654 | 3.03           |

The higher score for emergency services suggests that facilities linked directly to immediate clinical response are functioning comparatively well. By contrast, the lower wheelchair score is significant because mobility aids are closely tied to the ability of older patients to navigate the hospital independently. A facility can therefore be clinically functional while still presenting usability limitations to elderly users. The findings reinforce patient-safety literature which emphasises that effective healthcare environments must support not only treatment activities but also safe movement, access and everyday patient use (Hignett and Lu, 2016).

#### 4.3 Adequacy of Facilities

The adequacy assessment further reveals variation between essential environmental provisions and other support facilities. Lighting recorded the highest mean score of 3.50, indicating comparatively satisfactory provision. Beds and wards recorded 3.02, while seating spaces and parking recorded 2.82 and 2.72 respectively. Toilets recorded the lowest mean score at 2.47, making sanitation the weakest adequacy indicator examined. The results indicate that essential accommodation and lighting provisions are more adequately supplied than support facilities required for comfortable and independent use.

Table 3: Adequacy of Facilities in Selected Geriatric Hospitals (n = 216)

| Facility       | Very High | High | Moderate | Low | Very Low | TWV | Mean ( $\mu$ ) |
|----------------|-----------|------|----------|-----|----------|-----|----------------|
| Beds/Wards     | 26        | 48   | 60       | 52  | 30       | 652 | 3.02           |
| Seating spaces | 20        | 40   | 58       | 62  | 36       | 610 | 2.82           |
| Toilets        | 12        | 28   | 46       | 78  | 52       | 534 | 2.47           |
| Lighting       | 48        | 66   | 54       | 30  | 18       | 756 | 3.50           |
| Parking        | 16        | 32   | 50       | 68  | 50       | 588 | 2.72           |

The low adequacy score for toilets corresponds with the accessibility findings and suggests that sanitation is a repeated weakness rather than an isolated perception. Seating and parking also received only moderate ratings, indicating that support facilities may not be sufficient for the number and functional needs of elderly users and accompanying persons. In geriatric care, adequacy is important because older adults may spend longer periods waiting, require frequent restroom access and depend on seating or support while moving through hospital processes. The findings therefore indicate that adequacy should be understood as both quantity and suitability for the needs of older users.

#### 4.4 User Satisfaction with Available Facilities

User satisfaction provides an overall indication of how elderly patients perceive the quality and

usability of the facilities available to them. Table 4 shows that satisfaction was highest for pharmacy services (4.35), directional signage (4.18) and parking spaces (4.05). Adequate lighting and ramps/handrails also recorded satisfactory scores of 3.96 and 3.90 respectively. In contrast, satisfaction with accessible toilets and elevators/lifts was low, with mean scores of 2.96 and 2.61, respectively. The pattern demonstrates that satisfaction was stronger for conventional healthcare and basic support services than for specialised age-friendly accessibility provisions.

Table 4: Elderly Patients' Satisfaction with Available Facilities (n = 216)

| Rank | Facility                 | Mean Score | Decision             |
|------|--------------------------|------------|----------------------|
| 1    | Pharmacy                 | 4.35       | Highly Satisfied     |
| 2    | Directional signage      | 4.18       | Satisfied            |
| 3    | Parking space            | 4.05       | Satisfied            |
| 4    | Adequate lighting        | 3.96       | Satisfied            |
| 5    | Ramps and handrails      | 3.9        | Satisfied            |
| 6    | Dedicated geriatric ward | 3.78       | Moderately Satisfied |
| 7    | Emergency unit           | 3.72       | Moderately Satisfied |
| 8    | Physiotherapy unit       | 3.58       | Moderately Satisfied |
| 9    | Wheelchairs              | 3.47       | Moderately Satisfied |
| 10   | Outdoor relaxation area  | 3.34       | Moderately Satisfied |
| 11   | Diagnostic laboratory    | 3.22       | Moderately Satisfied |
| 12   | Waiting lounge           | 3.11       | Moderately Satisfied |
| 13   | Accessible toilets       | 2.96       | Dissatisfied         |
| 14   | Elevators/Lifts          | 2.61       | Dissatisfied         |

The satisfaction results closely mirror the earlier accessibility and adequacy findings. Pharmacy, signage, lighting and ramps performed positively because they address visible, routinely used components of hospital access and service delivery. However, accessible toilets and lifts attracted dissatisfaction, corresponding to their lower accessibility and adequacy scores. The convergence of the results across different measures strengthens the evidence that universal accessibility remains a major weakness in the selected hospitals. Similar concerns have been identified in Nigerian hospital assessments, where accessibility barriers affect independent use and user experience (Unuebho and Oghifo, 2024; Tanyi et al., 2020).

#### 4.5 Facility-Related Challenges Experienced by Elderly Patients

The challenge assessment identifies the practical consequences of the weaknesses reported in the previous sections. Poor toilet conditions were the most frequently reported problem, affecting 66.7% of respondents. Prolonged waiting time was reported by 62.0%, followed by inadequate seating at 58.3%. Restricted movement affected 51.9%, while poor ventilation was reported by 45.4%. Limited staff assistance and difficulty locating departments were reported by 40.7% and 35.2% respectively.

Table 5: Major Facility-Related Challenges Reported by Elderly Patients

| Challenge                       | Frequency (%) |
|---------------------------------|---------------|
| Poor toilet conditions          | 66.7          |
| Prolonged waiting time          | 62.0          |
| Inadequate seating              | 58.3          |
| Restricted movement             | 51.9          |
| Poor ventilation                | 45.4          |
| Inadequate staff support        | 40.7          |
| Difficulty locating departments | 35.2          |

The dominance of sanitation, waiting and movement-related problems shows that facility performance is shaped not only by the availability of clinical spaces but also by the everyday experience of using them. Poor toilet conditions correspond with the lowest adequacy and satisfaction scores, while restricted movement is consistent with the weak ratings recorded for lifts and accessible toilets. Prolonged waiting and inadequate seating additionally suggest that the patient experience extends beyond treatment rooms to the spaces in which elderly people wait, rest and move between services. These findings support previous evidence that the physical healthcare environment contributes to patient comfort, safety and satisfaction (Ulrich et al., 2008; Joseph et al., 2015).

## V. CONCLUSION AND RECOMMENDATIONS

The study examined elderly patients' assessment of facilities in selected geriatric hospitals in Southwestern Nigeria, focusing on accessibility, functionality, adequacy, satisfaction and facility-related challenges. The findings show that the selected hospitals provide essential healthcare services but remain only moderately responsive to elderly users' needs. Accessibility was strongest for ramps and handrails but weakest for toilets and elevators. Functionality was strongest for emergency units and pharmacy services but lower for wheelchairs. Adequacy was highest for lighting and lowest for toilets, while satisfaction was highest for pharmacy services, directional signage and parking and lowest for accessible toilets and elevators. The major challenges reported by users were poor toilet conditions, prolonged waiting time, inadequate seating and restricted movement. Overall, the results indicate that the strongest aspects of facility performance are concentrated around conventional healthcare functions, whereas age-specific support and accessibility provisions remain less satisfactory.

The study recommends that geriatric hospital managers prioritise the improvement and maintenance of accessible toilets, elevators or alternative vertical-mobility provisions, wheelchairs and other mobility aids. Waiting spaces should provide adequate seating and reduce unnecessary delays, while circulation routes should remain unobstructed and easy to navigate. Directional information should be maintained and strengthened where users experience difficulty locating departments. Facility assessments and maintenance programmes should also include elderly-user feedback so that accessibility, adequacy and functionality are monitored as part of routine hospital performance management. These measures address the specific weaknesses identified by the study without extending the paper beyond its focus on existing facility assessment.

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