

KNOWLEDGE AND PERCEPTION OF CAREGIVERS TOWARDS ELDERLY CARE IN FAMILY SETTINGS IN OYO STATE LOCAL GOVERNMENTS AREA

Adenike Koseganlola Kadri¹, Modupeola Olayinka Oyesiji²

Department of Nursing Sciences, Lead City University, Ibadan, Oyo State

kadri.adenike@lcu.edu.ng¹, coma6238@yahoo.com²

Corresponding Author²:

coma6238@yahoo.com

ABSTRACT

Elderly care remains a global public health challenge. While previous studies have emphasized the burden of caregiving, limited attention has been given to caregivers' knowledge and perception of home-based elderly care. This study assessed caregivers' knowledge and perception of Elderly Care in Family Settings (ECIFS) in Lagelu and Ibadan North East Local Government Areas of Oyo State, Nigeria. The Theory of Planned Behaviour guided the study, which adopted a descriptive cross-sectional design. A multistage sampling technique was used to select 303 respondent Data were collected using a validated, structured questionnaire and analyzed with descriptive statistics, Pearson chi-square, and mean scores. Results showed that the mean age of respondents was 36.8 ± 11.3 years. More than half of the respondents had good knowledge (173; 57.7%) and good perception (175; 58.3%) of ECIFS. A significant association was found between knowledge and perception ($p = 0.002$; $df = 2$, $\chi^2 = 12.55$). Socio-demographic variables including age ($p = 0.015$), educational qualification ($p = 0.035$), marital status ($p = 0.025$), and residence ($p = 0.013$) were significantly associated with perception, whereas gender and occupation were not. Conversely, none of the socio-demographic characteristics showed a significant association with knowledge. Overall, findings indicate that while many caregivers demonstrated good knowledge and perception of ECIFS, gaps remain that could affect the quality of elderly care. The study recommends the establishment of community-based elderly care centers to provide caregiver training and temporary relief services to strengthen family-based elderly care in the study areas.

Keywords: Elderly care, Family settings, Knowledge, Perception

Introduction

Elderly (People aged 60 years and above who require assistance with daily living activities and may experience age-related health conditions necessitating the support of care givers) care is a global practice, with developed countries relying on formal social support systems, while in sub-Saharan Africa, it predominantly depends on family members such as spouses, children, and grandchildren. Caregiving provides individualized support but often comes with physical, emotional, and financial burdens. As health needs increase with age, older adults face higher risks of disability and dependency due to lifelong illness and injury, making caregiving more challenging (WHO, 2017; Sengupta et al., 2023). Family caregivers not only assist with daily tasks but also provide emotional and financial support while safeguarding against elder abuse and neglect (Oppong, 2006; Zimmer & Dayton, 2005).

Caregivers are responsible for assisting dependent individuals with daily activities, health needs, and overall support. Family caregivers, usually unpaid relatives or friends, play a vital role in enabling older adults to maintain independence and remain in their preferred living settings (Schulz, Eden, & National Academies, 2016). Caregivers usually paid relatives or or friends play a vital and growing role in helping older adults maintain independence and remain in their preferred living settings. Recent research shows that despite this importance, many family caregivers are underserved: they often lack knowledge (e.g. about dementia, comorbidity management, medication, fall prevention), skills (e.g. behavioral management, wound care, monitoring) and sufficient support from health systems. These deficits are associated with high emotional, physical and financial strain, especially in low- and middle-income countries.(Nguyen et al (2023); Onwumelu et al (2024); atakere et al (2025))

Knowledge of elderly care involves caregivers' awareness of the physical, emotional, and social needs of older adults, including nutrition, hygiene, mobility, companionship, and community engagement. Adequate knowledge is essential for delivering quality care, supporting healthy aging, and improving the well-being and quality of life of the elderly (Fulmer et al., 2021). Perception of elderly care refers to caregivers' subjective understanding of the needs of older adults, shaped by personal experiences, cultural beliefs, and societal values. Positive perceptions encourage compassionate, person-centered care, while negative perceptions may frame caregiving as a burden. These perceptions strongly influence the quality of care provided, making it important to assess and address them in order to improve caregiving practices (From et al., 2013; Lindeza et al., 2020).

While caregivers provide essential support, they may hold negative or ambivalent perceptions toward elderly relatives, particularly those with chronic illness or dependency (Clark et al., 2014). Care often relies on cultural expectations or personal experiences, which may not meet the complex needs of older adults. Many elderly individuals face neglect due to caregiver burden, limited caregiving knowledge, and widespread poverty, which reduces their ability to afford necessary food and medications.

In sub-Saharan Africa, caregiving for the elderly is considered a moral and familial duty, yet many family caregivers lack adequate knowledge of the complex needs of aging individuals, such as mobility, nutrition, and psychological support (Agyemang, 2021). Older adults often fail to express their needs due to fear of burdening relatives or being misunderstood. In Nigeria, particularly in areas like Lagelu and Ibadan North East of Oyo State, caregiving largely falls on spouses, children, or grandchildren who provide various forms of support without formal

training. This knowledge gap can unintentionally harm both the elderly and the caregivers (WHO, 2017)

Despite the increasing population of elderly person in Nigeria- currently estimated at about 5% of the national population and projected to rise to over 10% by 2050 (UN, 2022)- elderly care within family settings remains largely informal and independent on the knowledge and attitude of caregivers. Evidence from Oyo State shows that over 70% of family caregivers lack formal training in elderly care (BMC Geriatrics, 2024). Many caregivers therefore struggle with understanding the physical, psychological, and social needs of the aged, which often results in neglect, inappropriate care practices, or undue burden of family members. The problem is further compounded by prevailing cultural perceptions of ageing- where older adults are often regarded as less productive or overly dependents- shaping the quality of care provided regardless of the caregivers willingness or resources. Although knowledge is expected to influence positive perceptions and better caregiving practices, a recent study revealed that more than 60% of family caregivers in Southwest Nigeria demonstrated inadequate knowledge of elderly care (Journal of Aging Research & Healthcare, 2023). This gap raises concerns about the adequacy and quality of care being given to the elderly in Ibadan, Oyo State, thus necessitating an investigation into the relationship between caregiver knowledge and perception of elderly care.

Objectives of the Study

- i. To find out the level of knowledge (Good or Poor) of caregivers towards elderly care in family settings in selected Local Government area of Ibadan, Oyo State
- ii. To examine the perception of caregivers towards Elderly Care in Family Settings in Selected Local Government Areas of Ibadan, Oyo State

- iii. Examine the association between soci-demographic characteristics and knowledge of caregivers towards elderly care in family settings in Selected Local Government Areas of Ibadan, Oyo State
- iv. Examine the association between socio-demographic characteristics and perception of caregivers towards elderly care in family settings in Selected Local Government Areas of Ibadan, Oyo State

Research Questions

1. What is the level of knowledge (Positive or Negative) of caregivers towards Elderly Care in Family Settings in Selected Local Government Areas of Ibadan, Oyo State?
2. What is the perception of caregiver towards Elderly Care in Family Settings in Selected Local Government Areas of Ibadan, Oyo State?

Hypothesis

H₀₁: Knowledge will not have significant influence on the perception of caregivers towards Elderly Care in Family Settings in Selected Local Government Areas of Ibadan, Oyo State

H₀₂: Socio-Demographic Characteristics will not have influence on the knowledge of caregivers on elderly care in family settings in selected Local Government Area in Ibadan, Oyo state.

H₀₃: No significant relationship between socio-demographic characteristics and perception of caregivers on elderly care in family settings in selected Local Government Area

Literature Review

Aging is a multifaceted process driven by the accumulation of molecular and cellular damage over time. This leads to a gradual decline in physical and mental capacity, increased disease risk, and ultimately death. Notably, aging changes are not uniform and don't necessarily correlate with

chronological age. Beyond biological changes, aging often involves significant life transitions, including retirement, relocation, and the loss of loved ones, which can further impact an individual's life (Bhattacharyya, 2021).

Healthy aging can be promoted through lifestyle and dietary strategies that slow functional decline, with nutrition playing a key role (Fitzgerald & Stoeckel, 2020). Older adults are vulnerable to deficiencies in energy, protein, and micro-nutrients such as vitamin B12, iron, vitamin D, and calcium, often due to reduced appetite, digestive issues, or social and financial barriers. Age-related changes in hunger signals and gastrointestinal discomfort further limit intake. Interventions like nutrient-dense small meals, softer foods, improved dining environments, and micro-nutrients supplementation can help prevent deficiencies. Additionally, supporting digestion and nutrient absorption by maintaining healthy gut microbial stomach acidity, and enzymatic function is critical to reducing risks such as osteoporosis and cognitive decline (O'Neill, 2022).

The psychological needs of the elderly are closely tied to emotional, cognitive, and social well-being, becoming more significant with aging-related transitions such as retirement, loss of loved ones, declining health, and changing family roles (Hossen & Salleh, 2024). These challenges can affect self-esteem, identity, and mental health. Emotional support and companionship are vital, as social isolation and loneliness are common in later life. Strong connections with family, friends, or community groups help reduce depression and anxiety while fostering a sense of belonging (Kim et al., 2021; O'G'Li, 2024).

Another essential need is the preservation of purpose and meaning. After retirement, many elderly people struggle with feelings of redundancy or loss of usefulness, as work and parenting roles diminish. Engaging in meaningful activities such as volunteering, mentoring younger

generations, joining religious or community initiatives, or pursuing hobbies can help restore a sense of contribution and fulfilment. Respect and dignity also play a vital role in psychological well-being (Hassan, 2023). Ageism and societal neglect can undermine an older adult's self-worth, but recognition of their life experiences, knowledge, and perspectives fosters self-respect and emotional stability.

Family and inter-generational relationships are central to the well-being of older adults, with family members, especially adult children, often serving as informal caregivers who provide daily assistance, healthcare support, and companionship (Bom et al., 2019). In cultures with strong inter-generational

solidarity, caregiving is seen as both a moral duty and a cultural norm (Scharlach et al., 2006). However, the emotional, physical, and financial demands of caregiving can strain caregivers, leading to burnout and reduced quality of life (Sullivan & Miller, 2015). Changing family structures due to urbanization, migration, and shifting gender roles are reducing the availability of family-based care, highlighting the need for policies that support both caregivers and older adults while accommodating cultural diversity in caregiving practices.

This study is underpinned by the Theory of Planned Behaviour (TPB) developed by Ajzen in 1985. According to TPB, a person's behavioural intentions and behaviours are shaped by their intention towards attitude, topic norms, and perceived behavioural control. By including the idea of perceived behavioural control, which is characterised as a person's assessment of how easy or difficult a specific behaviour is to perform, it expands on the notion of reasoned action (Ajzen, 2011).

The Theory of Planned Behaviour (TPB) posits that human behaviour is shaped by three belief systems: behavioural beliefs (attitudes toward outcomes), normative beliefs (perceived social

expectations), and control beliefs (perceived ability to perform the behaviour) (Armitage & Christian, 2003). Together, these influence attitudes, subjective norms, and perceived behavioural control, which determine behavioural intentions and, ultimately, behaviour. In the context of elderly care, a caregiver with positive attitudes toward caregiving, supportive cultural or social norms, and confidence in their caregiving skills is more likely to provide consistent and compassionate care. TPB has been widely applied in public health to predict health-related behaviours, making it a strong theoretical foundation for examining how caregivers' knowledge, perceptions, and attitudes shape elderly care practices.

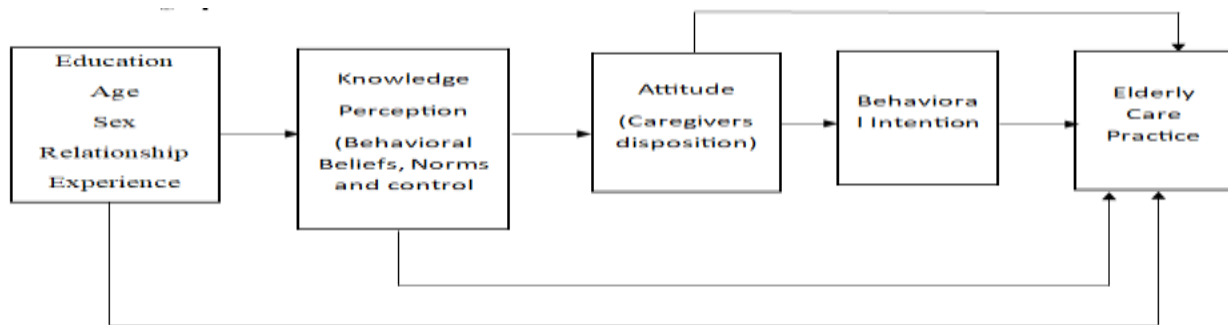


Figure 1: Showing the theoretical framework

Methodology

This study adopted a descriptive cross-sectional research quantitative design to assess the knowledge, perception, and attitudes of caregivers towards elderly care in a family setting in Ibadan, Oyo State, Nigeria. This research design was appropriate for collecting data along the stated objectives and research questions the study targeted informal elderly caregivers aged 18 years and above who were responsible for caring for elderly persons within their households. Individuals who were not directly involved in the daily care of elderly persons, professional caregivers who were employed through agencies or institutions and caregivers with

communication impairment or disability that could not respond to the questionnaire were excluded from the targeted population.

The study was conducted across Lagelu and Ibadan North East LGAs within Oyo State to capture a representative sample of informal caregivers from diverse settings. The sample size for this study was determined using Cochran's formula (Harris, Booth, Cargo, Hannes, Harden, Flemming, & Noyes, 2018).

The sample size was determined using Conchrans Formular:

$$n = \frac{Z^2 \times P(1 - p)}{e^2}$$

where:

n = required sample size

Z = standard normal deviate at 95% confidence level = 1.96

P= 23.3%

e = margin of error = 0.05

$$n = \frac{1.96^2 \times 0.23(1-0.23)}{(0.05)^2}$$

$$n = \frac{(3.8416 \times 0.1771)}{0.0025}$$

$$n = \frac{0.6802411}{0.0025} = 272.0 = 272$$

Adjustment for Non-Response (10%)

$$\text{Adjusted } n = \frac{n}{1-0.10} = \frac{272}{0.90} = 302.2 = 303$$

Total sample for this study is 303

Sampling Procedure

A multistage sampling procedure was adopted to select caregivers of elderly persons from (Lagelu and Ibadan North East Local Government Areas).

Stage One: Two LGAs were selected by random balloting to minimize bias while keeping the study feasible within time and resource limits, two LGAs give useful insight but not fully represent all LGAs so findings should be generalized with caution

Stage Two: The two Local Government Areas were divided into geopolitical wards, four wards were selected within the LGAs using simple random sampling by balloting, applying proportional allocation based on the population of the two LGAs.

Table 3.1: Showing Proportional Calculation of the Sample Size

S/N	LGAs	No of Wards	2006 Census Population Figure	% of Sample size by Proportion	No of Sample Size by Proportion
1	Ibadan North East	10	330,399	69.07	209
2	Lagelu	14	147,957	30.93	94
		Total		478,356	Total 303

Stage Three: The selected wards were divided into compounds which were visited to identify households with elderly persons who have caregivers with the assistance of the ward development committee members.

Stage Four: From each eligible household (a household with an elderly person receiving care), one caregiver was selected for participation in the study.

A validated, structured, interviewer-administered questionnaire was used for data collection. The instrument which has fifty (50) question items made into four (4) sections, is specifically designed to address the study's research questions

The research instrument was validated through face and content validity and pretested in Egbeda Local Government using 10% of the sample. The split-half method was used to test the reliability of the instrument while the internal consistency was calculated using Cronbach alpha coefficient. A value of 0.7 and above was obtained indicating internal consistency of the instrument. Trained research assistants fluent in English and the local language facilitated data collection, ensuring clarity and cultural sensitivity. Ethical standards were strictly upheld, with participants fully informed and providing written consent, and interviews conducted in private settings to maintain confidentiality and minimize bias. Data were analyzed using SPSS version 27, with descriptive statistics (frequency, percentage, mean, and SD) used for research questions, while inferential statistics employed Pearson Product Moment Correlation (PPMC)

for hypotheses one and two, and Chi-square (cross-tabulation) for hypotheses three to five, and a p-value of 0.05 set as the level of statistical significance.

Results

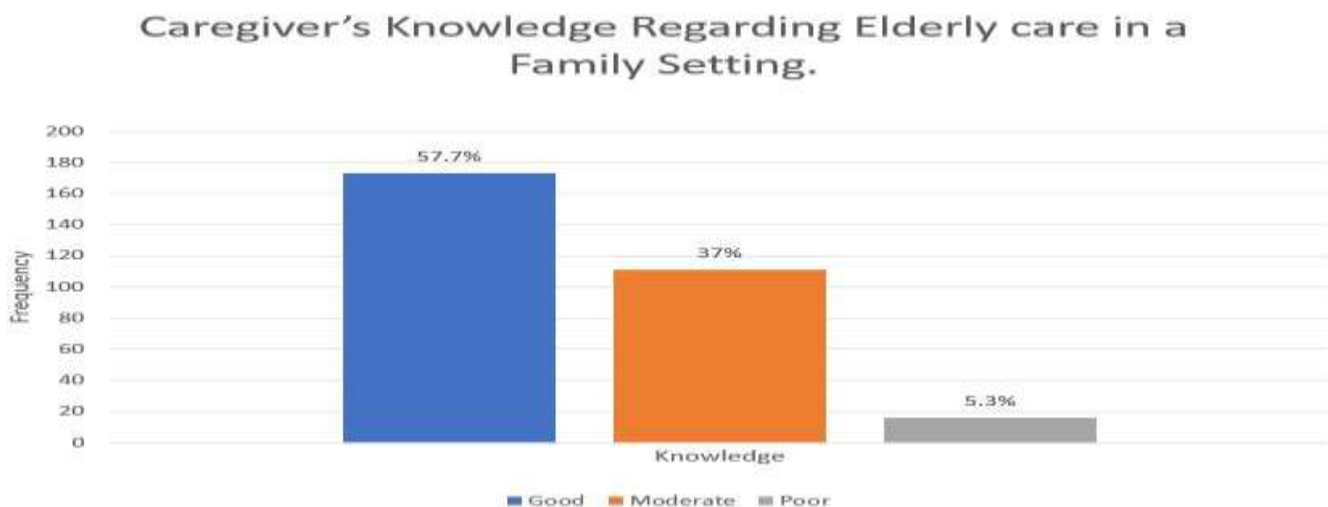
The mean age of the respondents was 36.8 ± 11.3 years. More than half (57.7%) of the respondents had good knowledge of ECIFS, over half (58.3%) had a good perception of ECIFS. The respondents' knowledge had a significant association with perception ($p=0.002$; $df=2$, $\chi^2=12.55$).

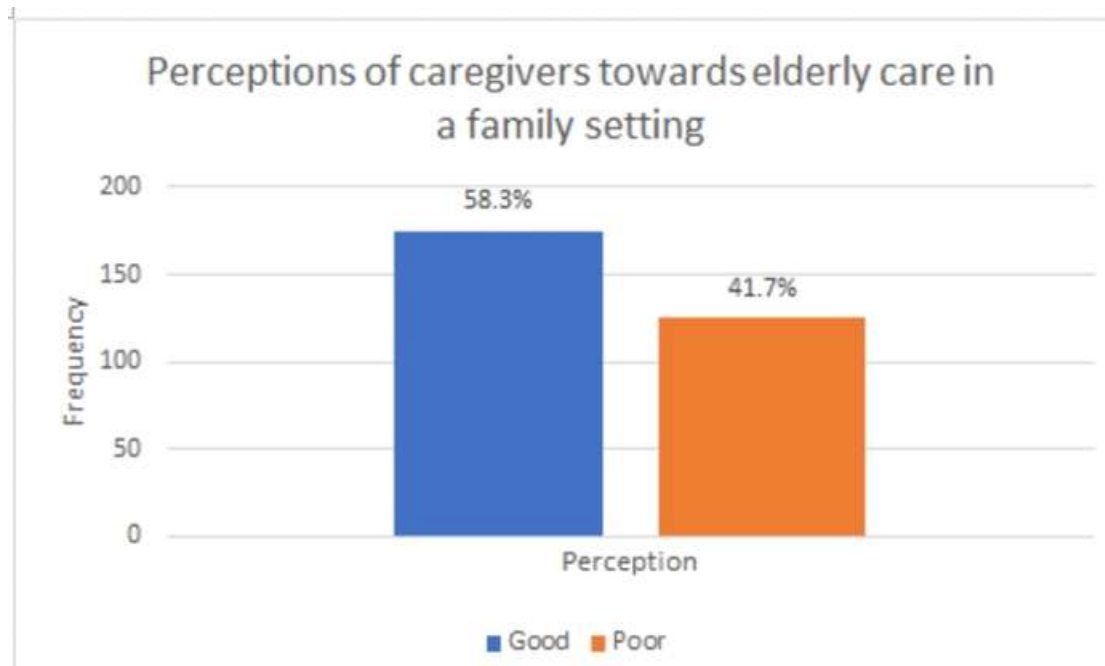
Table 4.1: Showing Socio-Demographic Characteristics

	Variables	Frequency	Percentage
Gender	Male	120	40
	Female	180	60
Age	18 – 27	68	22.7
	28 – 37	100	33.3
	38 – 47	80	26.7
	48 – 57	38	12.7
	58 – 67	11	3.7
	68 – 78	3	1
Marital Status	Single	102	34
	Married	164	54.7
	Divorced	22	7.3
	Widowed	9	3
Level of Education	None	21	7
	Primary	20	6.7
	Secondary	121	40.3
	Tertiary	138	46
Occupation	Unemployment	82	27.4
	Artisan	22	7.3
	Traders	120	40
	Civil servant	30	10
	Private enterprise	43	14.3
	Retiree	3	1
Residence	Rural	10	3.3
	Semi-urban	187	62.3
	Urban	103	34.4

*Mean Age: 36.8 ± 11.3

Conversely, none of the socio-demographic characteristics had a respective significant association with respondents' knowledge and perception of ECIFS. Conclusively, more than half of the respondents had good knowledge and perception of elderly care in family settings.





Discussion of Findings

The findings of this study revealed that a substantial proportion of caregivers in Lagelu and Ibadan North East Local Government Areas have good knowledge of elderly care. This is consistent with the findings of Brasaite, Kaunonen, and Suominen, (2015), where 95% of healthcare professionals demonstrated good knowledge, and Fulbrook, Albarran, Baktoft, & Sidebottom, (2012) who reported that 66% of nurses possessed knowledge level. The close alignment between the present study's results and those of trained professionals suggests that knowledge of elderly care may be widely accessible, possibly due to community sensitization programs, exposure to healthcare facilities, and strong cultural norms regarding elder respect and care.

However, the results differ from those of Fita, Mekonnen, Endalew, and Azagew (2021) in Ethiopia, where only 37.2% of nurses had good knowledge. This disparity could be attributed to variations in caregiver education levels, access to healthcare information, and local investments

in geriatric care services. Furthermore, the Ethiopian phenomenology study noted that even when caregivers had basic knowledge of elderly care, they often lacked practical competencies in areas such as fall prevention, nutrition planning, and chronic disease management. Similarly, in the present study, while overall knowledge scores were high, there were noticeable gaps in specialized areas of elderly care.

Furthermore, bivariate analysis in this study revealed that educational attainment was significantly associated with knowledge, with those having a tertiary education more likely to possess good knowledge. This aligns with the Ethiopian phenomenology study, which noted that education level influenced both the breadth and application of caregiving knowledge (Yayeh, & Makua, 2025).

The implication of these findings is that knowledge alone may not guarantee optimal caregiving practices unless it is complemented by practical training and continuous education. Strengthening caregiver capacity through workshops, health education programs, and collaboration with healthcare providers could bridge these gaps, ensuring that knowledge translates into improved elderly care outcomes. Caregivers in this study generally perceived elderly care as both a moral responsibility and a valued cultural obligation. This perception reflects traditional Nigerian values that emphasize reverence for elders and intergenerational support within families. Similar findings were reported in the Ethiopian study on effective family caregiving, where caregivers expressed pride in their role but acknowledged limitations in skill and resource availability.

However, the present study also found that some caregivers expressed concerns about the burden of elderly care, citing physical strain, emotional stress, and financial challenges. The statistical analysis showed a significant association between perception and gender with female caregivers

more likely to report negative perceptions, likely reflecting the heavier caregiving burden shouldered by women. This dual perception is consistent with the work of Ojifinni and Uchendu (2022) in Oyo State, who found that while caregivers valued their relationships with the elderly, many experienced moderate to severe burden, particularly among women and those in rural communities.

These findings suggest that perceptions of caregiving are shaped by both cultural values and practical realities. While cultural obligations can foster commitment, the demands of caregiving may lead to fatigue and reduced morale if support systems are lacking. Interventions that provide emotional support, skills development, and financial relief could help sustain positive perceptions and reduce caregiver burnout.

Conclusion

The conclusion drawn is that for eldercare to be effective and dignified within family settings, a paradigm shift is necessary. This involves not only empowering caregivers with skills and knowledge but also strengthening the health and social infrastructure that supports aging populations. Community-level interventions, formal training programs, and caregiver support policies are urgently needed. Moreover, it is important to challenge harmful traditional beliefs that stigmatize aging or misinterpret medical conditions such as dementia by engaging them in medical conditions or mental health awareness. The study has contributed significantly to understanding the behavioural and structural factors that influence eldercare because it calls for a more inclusive approach to caregiving, one that includes community health services, psychological support, and formalized policy frameworks to improve eldercare outcomes

Recommendations

1. The government should establish community-based eldercare training programs that will be focused on mobility assistance, nutrition and psychological support
2. Conduct and host frequent workshops and outreaches to enlighten informal caregivers
3. Policies that provide financial assistance or incentives to informal caregivers should be implemented to reduce the economic strain on families.
4. Integration of geriatric care education into primary health care and community outreach programs should be prioritized.
5. Local government authorities should work in collaboration with NGOs and faith-based organizations to provide psychosocial support and counseling services to caregiver

References

- Agyemang, F. A. (2021). *Long-Term Care and Caregiving for Older Adults in Africa*. AARP International.
- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & health*, 26(9), 1113-1127.
- Atakere, A.E, Osondu, N. & Akinyemi, R. O. (2025). The Role of family caregivers experiences of caring for older stroke survivors in Nigeria: A qualitative study. *Journal of population aging*, 17,115-133.
- Armitage, C. J., & Christian, J. (2003). From attitudes to behaviour: Basic and applied research on the theory of planned behaviour. *Current psychology*, 22(3), 187-195.
- Bhattacharyya, K. K. (2021). *Rethinking the Aging Transition*. Springer.
- Bom, J., Bakx, P., Schut, F., & Van Doorslaer, E. (2019). The impact of informal caregiving for older adults on the health of various types of caregivers: a systematic review. *The Gerontologist*, 59(5), e629-e642.
- Brasaitė, I., Kaunonen, M., & Suominen, T. (2015). Healthcare professionals' knowledge, attitudes and skills regarding patient safety: a systematic literature review. *Scandinavian journal of caring sciences*, 29(1), 30-50.
- Clark, A. M., Spaling, M., Harkness, K., Spiers, J., Strachan, P. H., Thompson, D. R., & Currie, K. (2014). Determinants of effective heart failure self-care: a systematic review of patients' and caregivers' perceptions. *Heart*, 100(9), 716-721.

- Fita, F., Mekonnen, H. S., Endalew, H. L., & Azagew, A. W. (2021). Knowledge, attitude, and associated factors towards older people care among nurses working at public hospitals in West Shoa zone, Oromia region, Ethiopia. *BMC nursing*, 20(1), 248.
- Fitzgerald, K. G., & Stoeckel, K. J. (2020). Evolving Global Gerontology Career Paths: An Uncharted Adventure. *Gerontology & Geriatrics Education*, 41(4), 396-397.
- From, I., Nordström, G., Wilde-Larsson, B., & Johansson, I. (2013). Caregivers in older peoples' care: perception of quality of care, working conditions, competence and personal health. *Scandinavian journal of caring sciences*, 27(3), 704-714.
- Fulbrook, P., Albarran, J. W., Baktoft, B., & Sidebottom, B. (2012). A survey of European intensive care nurses' knowledge levels. *International journal of nursing studies*, 49(2), 191-200.
- Fulmer, T., Reuben, D. B., Auerbach, J., Fick, D. M., Galambos, C., & Johnson, K. S. (2021). Actualizing Better Health And Health Care For Older Adults: Commentary describes six vital directions to improve the care and quality of life for all older Americans. *Health Affairs*, 40(2), 219-225.
- Harris, J. L., Booth, A., Cargo, M., Hannes, K., Harden, A., Flemming, K., & Noyes, J. (2018). Cochrane Qualitative and Implementation Methods Group guidance series—paper 2: methods for question formulation, searching, and protocol development for qualitative evidence synthesis. *Journal of clinical epidemiology*, 97, 39-48.
- Hassan, O. O. (2023). *Social connectedness and psychological adaptiveness as predictors of emotional wellbeing of the elderly in Ibadan, Nigeria* (Doctoral dissertation).
- Hossen, M. S., & Salleh, S. F. B. (2024). Social influences on the psychological well-being of elderly individuals. *Journal of Humanities and Applied Social Sciences*.
- Kahn, W. A. (1993). Caring for the caregivers: Patterns of organizational caregiving. *Administrative science quarterly*, 539-563.
- Kim, E. S., Tkatch, R., Martin, D., MacLeod, S., Sandy, L., & Yeh, C. (2021). Resilient aging: Psychological well-being and social well-being as targets for the promotion of healthy aging. *Gerontology and geriatric medicine*, 7, 23337214211002951.
- Lindeza, P., Rodrigues, M., Costa, J., Guerreiro, M., & Rosa, M. M. (2020). Impact of dementia on informal care: a systematic review of family caregivers' perceptions. *BMJ supportive & palliative care*, 14(e1), e38-e49.
- Nguyen, T.H., Hoang, V.M., Nguyen, H.T., Pham, T.T., Pham, L.H. (2023). Challenges, knowledge and skills of family caregivers of people with dementia in Vietnam: A cross sectional study. *BMC Geriatrics*, 23(1),560.
- O'G'Li, A. S. N. (2024). The importance of social activity in old age: a key factor for psychological well-being. *Eurasian Journal of Social Sciences, Philosophy and Culture*, 4(10), 12-16.
- O'Neill, D. (2022). Refashioning the uneasy relationship between older people and geriatric medicine. *Age and Ageing*, 51(4), afab281.

- Ojifinni, O. O., & Uchendu, O. C. (2022). Experience of burden of care among adult caregivers of elderly persons in Oyo State, Nigeria: a cross-sectional study. *Pan African Medical Journal*, 42(1).
- Onwumwlu, C.N., Olowookere, E.I., & Adeniyi, A.F. (2024). Family caregivers experiences of caring for older stroke survivors in Nigeria: A qualitative study. *Journal of population ageing*, 17,115-133.
- Oppong, C. (2006). Familial roles and social transformations: Older men and women in sub-Saharan Africa. *Research on Aging*, 28(6), 654-668.
- Scharlach, A. E., Kellam, R., Ong, N., Baskin, A., Goldstein, C., & Fox, P. J. (2006). Cultural attitudes and caregiver service use: Lessons from focus groups with racially and ethnically diverse family caregivers. *Journal of gerontological social work*, 47(1-2), 133-156.
- Schulz, R., Eden, J., & National Academies of Sciences, Engineering, and Medicine. (2016). Family caregiving roles and impacts. In *Families caring for an aging America*. National Academies Press (US).
- Sengupta, K., Shah, H., Ghosh, S., Sanghvi, D., Mahadik, S., Dani, A., ... & Servili, C. (2023). World Health Organisation-Caregiver Skills Training (WHO-CST) Program: feasibility of delivery by non-specialist providers in real-world urban settings in India. *Journal of Autism and Developmental Disorders*, 53(4), 1444-1461.
- Sullivan, A. B., & Miller, D. (2015). Who is taking care of the caregiver?. *Journal of patient experience*, 2(1), 7-12.
- World Health Organization. (2017). *Towards long-term care systems in sub-Saharan Africa*. Geneva: WHO.
- Yayeh, M. B., & Makua, M. G. (2025). Perceptions of caregivers and healthcare providers on the factors contributed to undernutrition among under five children in the West Gojjam Zone, Ethiopia: Phenomenology qualitative design.
- Zimmer, Z., & Dayton, J. (2005). Older adults in sub-Saharan Africa living with children and grandchildren. *Population studies*, 59(3), 295-312.