Original

Caregiver Burden and Quality of Life of Elderly Patients Attending a Family Medicine Geriatric Clinic at a Teaching Hospital, Osun State, South-West Nigeria

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Abstract

Background: Caregiver burden significantly impacts the quality of life (QoL) of elderly patients and their caregivers, particularly in resource-limited settings. This study examined this relationship among patients attending a geriatric clinic in Osogbo, Nigeria.

Method: A cross-sectional study was conducted among 316 caregivers using structured questionnaires. Data were analyzed using chi-square tests, t-tests, and logistic regression.

Result: Of the 316 respondents, 53.5% were female, 60.4% married, and 59.2% held graduate degrees. The mean age was 32.91 ± 11.36 years, with an average monthly income of ₦68,322.78 ± ₦72,177.63. Caregivers spent 6.28 ± 7.28 hours daily on caregiving. Caregiver burden was reported by 47.8%, with 64.2% of patients being independent. Significant associations were found between burden and religion (p=0.017), marital status (p=0.002), education level (p=0.001), and patient dependence (p=0.001). Muslims (56.7%) and single caregivers (60.5%) experienced higher burden. Caregivers of dependent patients (66.4%) and postgraduate degree holders (90.9%) reported greater burden. Caregivers with burden were younger (31.31 ± 12.02 years) and spent more hours daily (7.42 ± 8.02 hours) compared to those without burden (34.36 ± 10.54 years; 5.23 ± 6.37 hours). Burden was significantly associated with poorer QoL in physiological (p=0.004) and environmental domains (p=0.001). Financial constraints (61.7%) and daily caregiving challenges (71.2%) were major stressors.

Conclusion: Caregiver burden is prevalent and influenced by socio-demographic factors, negatively impacting QoL. Interventions such as financial aid, mental health support, and community-based programs are urgently needed to alleviate burden and improve well-being.

Keywords: Caregiver, quality of life, Patients, Geriatric Clinic

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Introduction

The dynamics of global demographics are undergoing a profound transformation, driven by increasing life expectancies and declining birth rates. This phenomenon, commonly referred to as population aging, has profound implications for healthcare systems, social structures, and individual well-being.[1,2] Nigeria, a nation in West Africa known for its rich cultural heritage and diverse population, is no exception to this trend.[3] As the elderly population continues to expand, particularly in the South-Western state of Osun, there is an urgent need to explore the complex interplay between caregiver burden and the quality of life of elderly patients seeking care at a Family Medicine Geriatric Clinic within a teaching hospital.

Nigeria's societal fabric is deeply rooted in familial bonds and intergenerational support.[4] Traditionally, the responsibility of caring for elderly family members has been shouldered by relatives, reflecting the cultural values of respect and reciprocity.[4] However, the rapid pace of urbanization, changing family structures, and economic pressures have led to shifts in caregiving patterns.[5] This has necessitated the emergence of formal healthcare institutions, like the Family Medicine Geriatric Clinic in Osun State, to provide specialized care for the aging population. Consequently, caregivers' individuals who provide physical, emotional, and often financial support to elderly family members find themselves in an evolving role that can be both rewarding and challenging.

Caregiver burden, a term that encapsulates the physical, emotional, and psychological strain experienced by those providing care, has garnered attention due to its potential impact on both caregivers and the elderly patients they support.[6] In Nigeria, where cultural norms and expectations remain strong, caregivers often take on this role out of a sense of duty and love.[7] However, the demands of caregiving can lead to stress, exhaustion, and a compromised quality of life for caregivers. Balancing their caregiving responsibilities with other life commitments, such as work and personal pursuits, becomes increasingly intricate.

Quality of Life (QoL) is a broad, multidimensional concept that encompasses an individual's overall well-being, including physical health, psychological state, social relationships, environmental factors, and personal beliefs.[7] On the other side of this dynamic are the elderly patients themselves. The concept of "quality of life" is central to their well-being and represents a holistic measure of physical health, mental and emotional states, and social engagement. The elderly population faces a unique set of challenges, ranging from chronic health conditions to social isolation.[8] The level of care and support they receive significantly influences their quality of life, as caregivers play a crucial role in facilitating access to medical treatment, medication management, and daily activities.

The interaction between caregiver burden and the quality of life of elderly patients is a complex and multifaceted relationship.[6] Caregivers' well-being can directly impact their ability to provide effective care, with high levels of burden potentially leading to burnout and reduced quality of care for the elderly patients.[6] Conversely, the quality of life experienced by elderly patients is intertwined with the support and care they receive from their caregivers.[6] A harmonious balance between these factors is essential for promoting the overall well-being of both caregivers and elderly patients. The study was limited to the specific setting of the family medicine geriatric clinic, and generalization to other healthcare settings may require further research.

Moreover, the study acknowledges the dynamic nature of caregiver burden and quality of life, which may vary over time and circumstances. As such, the study aims to provide a snapshot of the current situation, recognizing that further longitudinal investigations might be needed. In the context of Osun State, South-West Nigeria, there is a dearth of research that delves into the specific nuances of caregiver burden and its implications for the quality of life of elderly patients attending a Family Medicine Geriatric Clinic. Existing literature primarily focuses on developed countries, often overlooking the unique cultural, socioeconomic, and healthcare-related aspects that define the Nigerian context. Therefore, this research seeks to bridge this knowledge gap by conducting an in-depth exploration of caregiver burden and its potential influence on the quality of life of elderly patients in the local context. By shedding light on these dynamics, this study aims to provide insights that can inform tailored interventions, policies, and support systems for caregivers and elderly patients in Osun State. This study aims to examine the relationship between caregiver burden and the quality of life of elderly patients attending a family medicine geriatric clinic at a teaching hospital. By identifying the factors contributing to caregiver burden and their influence on the quality of life of elderly patients, this study will offer an insight that can guide healthcare providers in enhancing the well-being of both patients and their informal caregivers.

Methodology

Study Area

The study was conducted at the Geriatrics clinic under the Department of Family Medicine, UNIOSUN Teaching Hospital, Osogbo, Nigeria. UNIOSUN Teaching Hospital Osogbo formerly LAUTECH Teaching Hospital, Osogbo is located in city of Osogbo, Osun State Nigeria. The hospital is a tertiary healthcare delivery Centre, which serves as the referral Centre for the primary and secondary healthcare centers within the state. It also receives referrals from the neighboring states such as Kwara, Ogun, Ekiti, Ondo, and Oyo States. The Geriatrics clinic has three consultant Family Physician and four resident doctors. The hematology clinic holds five days a week.

Study Design

A descriptive hospital-based cross-sectional study design was used.

Study Population

Caregivers of elderly patients and the elderlies attending Geriatric clinic of UNIOSUN Teaching Hospital.

Eligibility criteria

Caregiver aged between 18 and 59 years who provided care for elderly persons (60 years and above) either as paid employees or family members and give consent was eligible to participate in the study.

Exclusion criteria

Less than 18-year-old, ≥ 60years, non-consenting caregiver, or caregiver of non-consenting elderly.

Sample Size determination

Sample size estimation is determined using the formula for estimating minimum sample size for cross-sectional studies by Cochran $n=Z^2 pq/d^2$ where n=Desired sample size when population is more than 10,000,[35] Z=Standard normal deviation set at 1.96 which corresponds to 95% confidence limit; p was set as 74.0% following the proportion of caregivers who experienced burden of care from a previous study.[36] Hence p was set at 30.5%, (p=0.74%); $q=1-p$ (q=0.26), d=Desired level of precision was set at 0.05.

$$n=\frac{Z^2pq}{d^2}$$

Where n = the minimum sample size, q = 1 -p,
Based on the above information, the minimum sample size (n) for this study was:

$$=\frac{(1.96)^2\times0.74\times0.26}{(0.05)^2}=\frac{0.739}{0.0025}=295.6$$

≈296

The proposed sample size equals 296, but since the proposed study population size is less than 10,000, the final sample size (*nf*) was obtained by applying the correction factor.[37,38]

$$nf=\frac{n}{1+n/N}$$

$nf-$ Final sample size when the population is less than 10,000

$n-$ Sample size in a cross-sectional study as obtained above

$N-$The estimate of the study population (Within a period of a year, the hospital records revealed that about 5891 elderly patients were attended to at the Geriatric clinic). Therefore, the estimated sample population over a year is 5891.

Thus,

$$nf=\frac{296}{1+[296/5891]}$$

$$nf=\frac{296}{1+0.05}$$ = 296/ 1.05 = 281.9 ≈ 282

Final corrected sample size = 282

Sampling method

According to the hospital records the geriatrics clinic has attended to 5891 elderly patients over the last one year i.e. an average of 491 patients monthly. The study is proposed to be for 2 months.

K = [491x2] / 282 = 3.48 ≈ 3

One each day of the clinic, a simple ballot will be used to determine the first participant thereafter a systematic random sampling technique with a sample interval of 3 will be used to recruit participants for this study. The sampling will continue till the minimum sample size is reached.

Instrument of Data collection

The level of burden of care experienced was determined using the 12-item Zarit Burden Interview (ZBI).[9] The modified short version of the Zarit Burden Interview is composed of 12 questions for screening caregivers for the experience of burden of care.[9] The response to each of the questions is graded as "never", "rarely", "sometimes", "quite frequently" and "nearly always" with "never" having a score of 0 while all other responses are scored 1.[9] The scores will be summed and a total score of 0 will mean no experience of burden of care while scores ≥1 are positive for the experience of burden of care. The degree of burden experienced will be classified in quartiles with the first quartile being equivalent to mild burden while the last quartile signifies severe burden.[9]

The level of dependence for care was measured with the Katz assessment of dependence for Activities of Daily Living (ADL).[10] This scale has six (6) domains, each scoring a point (1) for independence and 0 for dependence. The least obtainable score is 0 implying total dependence while the highest score is 6 for independence.[10] A score of 6 indicates full function, 4 is moderate functional impairment while scoring 2 or less is classified as having severe functional impairment.[41] To estimate dependence for care in this study, elderly persons with a score of 6 will be classified as "independent", those with a score of 3-5 as "moderately dependent" while those scoring ≤2 will be classified as being "fully dependent".

The WHOQOL-BREF is a 26-item instrument consisting of four domains: physical health (7 items), psychological health (6 items), social relationships (3 items), and environmental health (8 items); it also contains QOL and general health items. Each individual item of the WHOQOL-BREF is scored from 1 to 5 on a response scale, which is stipulated as a five-point ordinal scale. The scores are then transformed linearly to a 0–100-scale.[11] The physical health domain includes items on mobility, daily activities, functional capacity, energy, pain, and sleep. The psychological domain measures include self-image, negative thoughts, positive attitudes, self-esteem, mentality, learning ability, memory concentration, religion, and the mental status.[11] The social relationships domain contains questions on personal relationships, social support, and sex life. The environmental health domain covers issues related to financial resources, safety, health and social services, living physical environment, opportunities to acquire new skills and knowledge, recreation, general environment (noise, air pollution, etc.), and transportation.[11]

Higher scores in a domain indicate a better quality of life in that specific aspect and lower scores in a domain may highlight areas of concern or challenges in an individual's quality of life.

Data Analysis

The information collected from the participants was coded and entered in dataset created in Statistical Package for Social Science version 20 (IBM SPSS, New York, USA).

Descriptive statistics was used and reported as percentage, frequency, mean and standard deviation for both categorical and continuous data (after the conversion into categorical variables) such as sociodemographic variables, caregiver burden, quality of life and level of dependence scores.

The Chi-square test was used to assess the association between categorical variables, such as sociodemographic variables (e.g., age, gender, education) with the caregiver burden, and with quality of life. It will also be used to examine the relationship between caregiver burden and quality of life. Likewise, it will be used to determine the association between level of independence with caregiver burden and quality of life. P value will be considered to be statistically significant when at <0.05.

Ethical Considerations

Ethical certification was obtained from ethics committee of UNIOSUN Teaching Hospital (UTH) Osogbo. After approval from the Ethical committee, the Head of Department of Haematology will be notified before commencing data collection from the patient.

The nature of the study was explained to the participants and a copy of the patient's information sheet (Appendix V) given to them to read or read to those that cannot read. Each participant signed and those that cannot write will thumbprint a consent form (Appendix VI) by applying the right thumb on an inkpad and pressing it on the signature space. Informed consent was obtained from the participants.

Result

Socio-demographic Characteristics of Respondent

In this study 316 questionnaire was properly filled out of the 350 questionnaires distributed. Female respondents constituted 53.5% of the sample, while 59.2% identified as Christians. Regarding marital status, the majority

(60.4%) were married. Education levels were relatively high, with 59.2% holding graduate degrees and 40.8% being undergraduates. The mean age, Average monthly income and the average time/hours you stay with this patient daily were 32.91 ±11.357 years # 68, 322.78 ± #72, 177.626 and 6.28 ±7.280 hours respectively.

Employment was prevalent among respondents, with 85.4% engaged in various forms of work. Overall, health status was positive, as 79.4% reported no illness. The majority of caregivers (76.3%) were immediate family members. However, caregiving presented significant challenges, with 71.2% of respondents struggling with daily responsibilities, among the most commonly reported caregiving difficulties, financial constraints were cited by 61.7% of respondents. Regarding potential solutions, 63.9% identified free transportation as a key form of support.

Table 1: Socio-demographic Characteristics of Respondent n=316

Variable	Frequency (n)	Percentage (%)
Gender		
Male	147	46.5
Female	169	53.5
Religion		
Christianity	187	59.2
Islam	127	40.2
Traditional	2	6
Marital status		
Married	191	60.4
Widowed, separated, Divorced	6	1.9
single	119	37.7
Highest level of education		
Graduate	187	59.2
Undergraduate	129	40.8
Working status		
No	46	14.6
Yes	270	85.4
Nature of job - trader/business		
No	221	69.9
Yes	95	30.1
Nature of job - farmer		
No	307	97.2
Yes	9	2.8
Nature of job student		
No	284	89.9
Yes	32	10.1
Not working		
No	299	94.6
Yes	17	5.4
Current illness		
No	251	79.4
Yes	65	20.6
Relationship with the patient/person		
Daughter	110	34.8
Son	114	36.1
Siblings	17	5.4
Relatives	75	23.7
Relationship with the patient/person		
Family	241	76.3
Extended family	75	23.7
Challenges taking care of these patients daily		
No	91	28.8
Yes	225	71.2
Important challenges		
Money	195	61.7
Medication	88	27.8
Time	154	48.7
Communication.	96	30.4
Transportation	61	19.3
Making caregiving easier and better		
Free transportation	202	63.9
Free treatment	133.	42.1
More income	18	5.7

Prevalence of Caregiver burden and Pattern of dependence among the caregivers and patients respectively

One hundred and fifty-one (47.8%) of the respondents had care giver burden ranging from mild to severe. (Fig 1) while 203 (64.2 %) of the patient were independent, 29.4% and 6.4% were moderately and highly dependent respectively. (Fig 2).

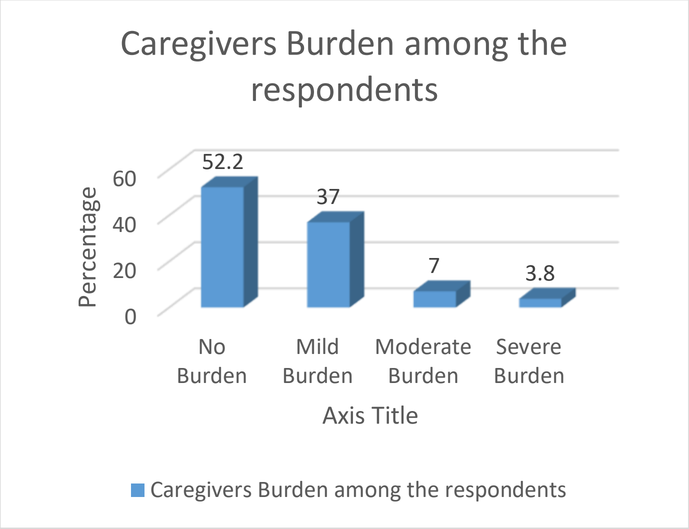

Fig 1: Pattern of Caregivers Burden among the respondent using Zarit Burden Interview

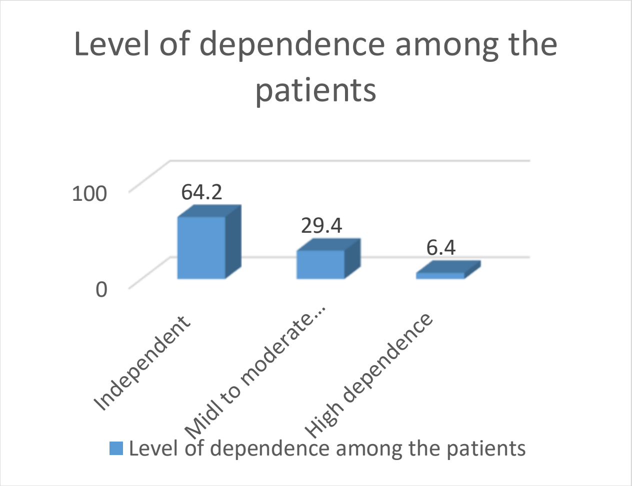

Fig 2: Pattern of Dependence among the patient using Katz assessment of dependence for Activities of Daily Living (ADL)

The Association between sociodemographic variable and Caregiver burdening among the respondents

Various socio-demographic factors significantly impact the burden of caregiving. Religion plays a crucial role, with a higher proportion of Muslims (56.7%) experiencing caregiver burden compared to other religious groups (X^2=8.169, p=0.017). Additionally, single individuals report a greater burden (60.5%) than widowed, separated, or divorced respondents, who experience an even distribution of burden (X^2=12.491, df=2, p=0.002). Caregivers from extended families also face a significantly higher burden (64.0%) compared to those from immediate families (X^2=10.363, df=1, p=0.001).

Daily caregiving challenges further contribute to stress, with 53.3% of those encountering daily difficulties experiencing a higher burden than others (X^2=9.640, df=1, p=0.002). Education level is also strongly associated with caregiving burden, as individuals with lower education levels, such as primary and secondary school graduates, report little to no burden, whereas an overwhelming 90.9% of postgraduate degree holders experience a burden (X^2=24.049, df=5, p=0.001). The level of patient dependence significantly influences the caregiver's experience, with 66.4% of those caring for dependent individuals reporting a much higher burden compared to those looking after independent patients (X^2=24.355, df=1, p=0.001). Table
The mean age of caregivers experiencing burden was lower (31.31 ± 12.02 years) compared to those without burden (34.36 ± 10.54 years) (t = 2.405, p = 0.017). Additionally, caregivers with burden spent more time with the patient daily (7.42 ± 8.02 hours) compared to those without burden (5.23 ± 6.37 hours) (t = -2.702, p = 0.007). (Table 3).

Table 2: The Association between socio-demographic variable and Caregiver burden among the respondents using Chi square

Variable	Caregivers Burden		X^2	df	p- value
	No Burden	**Burden**			
Gender					
Male	83(56.5%)	64(43.5%)	1.987	1	0.159
Female	82(48.5%)	87(51.5%)			
Religion					
Christianity	108(57.8%)	79(42.2%)	8.169	2	0.017

Variable	**Caregivers Burden**		**X²**	**df**	**p- value**
	No Burden	**Burden**			
Islam	55(43.3%)	72(56.7%)			
Traditional	2(100%)	0(0.0%)			
Marital status					
Married	114(59.7%)	77(40.3%)	12.491	2	0.002
Widowed, separated, divorced	4(66.7%)	2(33.3%)			
Single	47(39.5%)	72(60.5%)			
Highest level of education					0.092
Graduate	105(56.1%)	82(43.9%)	2.842	1	
Undergraduate	60(46.5%)	69(53.5%)			
Do you do any job?					
No	23(50.0%)	23(50.0%)	0.106	1	0.745
Yes	142(52.6%)	12847.4%)			
Do you have any illness as of now?					
No	137(54.6%)	114(45.4%)	2.739	1	0.098
Yes	28(43.1%)	37(56.9%)			
What is your relationship with the patient/person?					
Family	138(57.3%)	103(42.7%)	10.363	1	0.001
Extended family	27(36.0%)	48(64.0%)			
Do you have challenges taking care of these patient daily?					
No	60(65.9%)	31(34.1%)	9.640	1	0.002
Yes	105(46.7%)	120(53.3%)			
Gender					
Male	75(54.7%)	62(45.3%)	0.620	1	0.431
Female	90(50.3%)	89(49.7%)			
Dependence among the patients					
Independence	127(62.6%)	76(37.4%)	24.355	1	0.000
Dependence	38(33.6%)	75(66.4%)			

Table 3: The Association between socio-demographic variable and Caregiver burden among the respondents using t-test

Variable	**No Burden**	**Burden**	**t Test**	**df**	**P value**
Age	34.36 ± 10.54	31.31 ± 12.02	2.405	314	***0.017***
Monthly income	68090.91 ± 70694.36	68576.16 ± 73999.4	-0.060	314	0.953
Annual duration providing care to patients	4.5515 ± 2.309	4.3578 ± 2.089	-0.780	314	0.436
Average daily hours spent with patient	5.23 ± 6.37	7.42 ± 8.02	-2.702	314	***0.007***

Association between Caregiver burden and the Quality of Life of the Patients

There was significant association between the care giver burden and physiological (t=2.900, p value 0.004) and environmental domains (t=4.032, p value= 0.001) of the Quality of life among the patients (Table 3).

Table 3 Association between Caregiver burden and the Quality of Life of the Patients

Variable	No Burden	Burden	t -Test	df	P value
Physical Domains	20.867 ± 3.685	20.318 ± 3.710	1.318	314	0.188
Psychological Domains	20.352 ± 3.723	19.006 ± 4.509	2.900	314	***0.004***
Social Domains	7.703 ± 2.815	7.980 ± 2.786	-0.878	314	0.381
Environmental Domains	28.684 ± 4.569	26.218 ± 6.239	4.032	314	***0.001***

Sociodemographic determinant of Caregivers burden among the respondents

Caregivers of independent patients had 0.341 lower odds of experiencing burden compared to those caring for dependent patients, a statistically significant association (CI: 0.206–0.583, p = 0.001). Similarly, married caregivers had 0.578 lower odds of experiencing burden compared to single caregivers, with a statistically significant association (CI: 0.350–0.956, p = 0.032). Additionally, caregivers who reported no challenges in patient care had 0.496 lower odds of experiencing burden compared to those who faced challenges, a statistically significant association (CI: 0.289–0.853, p = 0.011). (Table 4).

Table 4: Sociodemographic determinant of Caregivers burden among the respondents using Binary logistic Regression-

Variable	Odd Ratio	p-value	Lower (l)	Higher
Marital Status				
Single (Ref)				
Widow (2)	0.412	0.330	0.690	2.453
Married (1)	0.578	***0.032***	0.350	0.956
Dependence among patients				
Dependence (Ref)				
Independent	0.341	***0.001***	0.206	0.583
What is your relationship with patients				
Extended family (Ref)				
Family	0.684	0.235	0.365	1.280
Challenges taking care of these patients				
Yes (Ref)				
No	0.496	***0.011***	0.289	0.853
What are the average hours you stay with the patients daily	1.021	0.152	0.990	1.066

Discussion

This study examined the relationship between caregiver burden and the quality of life (QoL) of elderly patients attending a family medicine geriatric clinic at a teaching hospital. Female caregivers constituted 53.5% of respondents, aligning with global trends where women are more likely to assume caregiving roles due to societal expectations[12]. A majority of caregivers (60.4%) were married, which may provide emotional and financial support but can also increase stress due to competing family and work demands[13].

Despite 59.2% of caregivers holding graduate degrees, higher education did not necessarily alleviate caregiver burden, as balancing work and caregiving remained a significant challenge[14]. Financial strain was another critical issue, with caregivers earning an average of ₦68,322.78 per month an amount that may be insufficient to cover medical and caregiving expenses, contributing to economic stress[15]. Time commitment further intensified caregiver burden, with respondents spending an average of 6.28 hours daily attending to elderly patients. Research indicates that caregivers dedicating more than five hours per day are at higher risk of sleep deprivation, anxiety, and physical exhaustion[16]. Additionally, 76.3% of caregivers were immediate family members, reflecting cultural norms that prioritize familial responsibility for elderly care[17]. However, caregiving presented substantial challenges, with 71.2% of respondents reporting difficulties in daily responsibilities such as mobility assistance, medication management, and emotional support[18]. These findings underscore the need for interventions to reduce caregiver burden and improve support systems.

Prevalence of Caregiver burden among the respondents.

The study reported that 47.8% of caregivers for elderly patients in Osogbo experience caregiver burden aligns with existing empirical studies on caregiver burden in Nigeria and other similar settings. Several studies have examined caregiver burden among those providing care for elderly individuals in Nigeria, with varying but often higher prevalence rates. For instance, a study conducted in Ibadan, Oyo State, found that 74.0% of caregivers experienced some level of burden, with 28.2% reporting severe burden [19]. The study identified rural residence, poor mental health, and high dependency of the elderly as key risk factors for increased burden. Compared to your study, this suggests that caregiver burden in Osogbo may be slightly lower, potentially due to differences in social support systems or caregiver demographics. Similarly, a study in South-Eastern Nigeria found that 59.1% of caregivers experienced severe burden, particularly those caring for elderly individuals with chronic conditions such as dementia [20]. This percentage is higher than your study's 47.8%, which might indicate regional differences in healthcare access, social support, and economic conditions. Likewise, a study in Kano, Northern Nigeria, found that 52.7% of caregivers experienced moderate to severe burden, influenced by factors such as low income, lack of social support, and caregiving for elders with significant health issues [21]. These findings suggest that while caregiver burden is prevalent across different regions in Nigeria, its intensity may vary due to socio-economic, healthcare, and demographic factors.

Association between Caregiver burden and the Quality of Life of the patients

Studies from various regions in Nigeria highlight the strong link between caregiver burden and quality of life (QoL)[22,23]. A study on caregivers of older adults with chronic illnesses found that severe burden, leading to significantly lower scores in emotional well-being, indicating a decline in QoL. These findings reinforce the negative impact of caregiver burden on emotional, and social health [24].

The increased caregiver burden and a reduced mean in the environmental domain of quality of life (QoL) among the elderly in Osogbo aligns with existing empirical research in Nigeria and globally. Studies have consistently shown that caregiver burden negatively impacts both caregivers and elderly individuals, particularly in areas related to access to healthcare, financial resources, safety, and social support. A study in Oyo State found that higher caregiver burden significantly correlated with lower QoL scores among the elderly, especially in the environmental domain, due to financial strain and inadequate healthcare access [25]. Similarly, research in Lagos indicated that elderly individuals living in poor housing conditions with overburdened caregivers had significantly lower environmental QoL scores, highlighting the direct impact of caregiving stress on their well-being [26]. In Northern Nigeria, a study revealed that caregivers experiencing severe burden struggled to provide proper care due to financial constraints and lack of social support, further diminishing the environmental QoL of the elderly [27]. Globally, studies in India and Brazil have also found that financial stress, poor living conditions, and caregiver exhaustion contribute to a decline in environmental QoL for elderly individuals. The reduced environmental QoL in Osogbo can be attributed to limited healthcare access, financial constraints among caregivers, psychological stress, and inadequate social support systems. These findings highlight the urgent need for policy interventions, improved healthcare infrastructure, financial assistance for caregivers, and community-based elderly care programs to enhance the overall well-being of both caregivers and the elderly.

Sociodemographic determinant of Caregivers burden among the respondents

In this study male caregivers were determinant of caregiver's burden. Empirical studies from Nigeria indicate that married caregivers experience significant caregiver burden, particularly when caring for dependent patients[28]. Research from Oyo State found that 78.4% of caregivers were married, with 74.0% experiencing some level of burden and 28.2% reporting severe burden[29]. Additionally, caregivers looking after highly dependent patients were nearly three times more likely to experience severe burden than those caring for independent individuals. Given the cultural and demographic similarities between Oyo State and Osogbo, it is likely that married caregivers in Osogbo face similar challenges, emphasizing the need for support systems to mitigate caregiver burden.

In addition, caregivers who claimed to be facing various challenges had increased caregiver's burden. Empirical studies from Nigeria indicate that several sociodemographic factors influence caregivers' challenges in managing patients [30,31]. The caregiver's relationship to the patient plays a crucial role, with non-relatives experiencing higher levels of burden compared to nuclear family members, as seen in a study on elderly diabetic patients in a Nigerian tertiary hospital. Mental health status is another key determinant, as caregivers with poor mental well-being were found to have eight times higher odds of experiencing burden, highlighting the need for mental health support. Additionally, patient dependency levels significantly impact caregiver stress, with caregivers of highly dependent patients facing nearly three times more burden than those caring for independent individuals.

The study reported a positive relationship between patient dependence and caregiver burden is supported by empirical research in Nigeria and globally. Studies have consistently shown that as elderly patients become more dependent on caregivers for daily activities, the burden on caregivers increases due to physical, emotional, and financial stress. Similarly, a study conducted in Oyo State, Nigeria, found that caregivers of highly dependent elderly patients experienced significantly higher levels of burden compared to those caring for more independent patients [32]. The study highlighted that dependence in activities of daily living (ADLs) such as bathing, feeding, and mobility was a key predictor of caregiver burden. Similarly, research in Lagos found that caregivers of bedridden elderly patients had higher stress levels, increased financial strain, and poorer mental health outcomes, directly correlating with the level of patient dependence [33]. Another study in Northern Nigeria reported that caregivers for elders with severe mobility limitations and cognitive impairments faced greater emotional exhaustion and financial difficulties, further intensifying their burden [34].

Implications of the findings of the study

To alleviate caregiver burden and improve the quality of life for both caregivers and elderly patients in Osogbo, several measures should be implemented. Expanding healthcare access, including specialized geriatric services and subsidized care, will ease financial and physical strain. Financial assistance programs, such as stipends and subsidized medication, can help address economic stress. Caregiver support initiatives, including training, mental health counseling, and respite care, should be established to reduce burnout. Strengthening community-based elderly care programs and implementing caregiver-friendly workplace policies will further support caregivers. Additionally, government policies should enhance elderly welfare through pension reforms and social security benefits. Accessible mental health services and further research on caregiver burden trends are also necessary for data-driven interventions. These strategies will collectively reduce caregiver burden and enhance the well-being of elderly individuals in Osogbo.

Conclusion

This study highlights the significant caregiver burden among predominantly female (53.5%), educated, and married (60.4%) caregivers in Osogbo, Nigeria, with 47.8% reporting stress due to financial constraints (avg. income: ₦68,322.78/month) and demanding caregiving hours (6.28/day). The strong link between caregiver burden and reduced quality of life especially in environmental and mental health domains calls for targeted interventions, including financial support, mental health services, and community-based elderly care programs, to improve well-being for both caregivers and patients.

Declarations

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