

Application of Pre- and Post-Geriatric Responsibilities in Curbing Challenges Facing the Aged and Aging Processes

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ABSTRACT

Background and Objective: The aging and aged population is increasing globally with diverse challenges associated with programmed physiological, psychological, and anatomical alterations. These challenges could lead to morbidity or mortality if not handled with utmost care. There is a dearth of research and literature in the discourse on challenges associated with aging and the aged. Thus, this research article examines the challenges and responsibilities of the aging and the aged. **Materials and Methods:** The paper adopted a survey design using a structured questionnaire involving 300 aged individuals but 293 old adults participated in this study in Yenagoa Metropolis, Bayelsa State with a participation rate of 97.6%. The paper also employed descriptive statistics and the Spearman Rank Correlation Coefficient to analyze the data at 0.05 significance levels. **Results:** The findings revealed that 100% of the aging and the aged had one health challenge or the other, 100% had a financial challenge, and 76.3% were emotionally depressed due to social isolation. Additionally, the responsibilities of the elderly indicated that engaging in regular physical activities, maintaining a sense of purpose, and maintaining a social network will reduce emotional and social isolation ($p < 0.05$). **Conclusion:** The study recommended that the elderly should engage in regular physical activities, maintain a sense of purpose, and maintain a social network.

KEYWORDS

Aging and the aged, health challenges, financial challenges, emotional, social challenges

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INTRODUCTION

Aging refers to the biological process of becoming older, typically characterized by changes in an individual's physical, cognitive, and social functioning over time¹. According to Bennett *et al.*², the proportion of the World's population aged 60 years or older is expected to double by 2050, reaching around 22%. This demographic shift may be driven by several factors like advances in healthcare, improvements in living standards, and declining birth rates. In Nigeria, the country's population is rapidly aging, with the number of elderly individuals aged 65 and above expected to rise from 3.1% in 2019 to 6.1% by 2050³.



The health challenges confronting the elderly in Nigeria and globally are complex and multifaceted. As individuals age, they are more susceptible to chronic conditions such as cardiovascular diseases, diabetes, malaria, HIV/AIDS, hypertension, and arthritis which account for 29% of deaths among the elderly in Nigeria, with cardiovascular diseases being the leading cause⁴. Globally, approximately 60% of individuals aged 60 and above suffer from at least one chronic condition⁵. Moreover, a study conducted in 2020 reported that nearly 80% of older adults have at least one chronic disease, and 77% have at least two⁶⁻⁸.

Financial challenges confronting the elderly in Nigeria and the world are multifaceted and profound. The elderly encounter substantial financial insecurity, stemming from innumerable factors. These challenges are deeply rooted and have significant implications for the well-being of older adults. In Nigeria, one of the primary challenges facing the elderly is the inadequacy of retirement savings. According to the National Bureau of Statistics⁹, a mere 5% of Nigeria's workforce benefits from formal pension schemes. This statistic reveals the widespread lack of financial preparedness among the elderly, leaving many without a reliable income stream during retirement.

Rising healthcare costs present another significant challenge for the elderly in Nigeria and globally. In Nigeria, out-of-pocket spending on healthcare comprises approximately 76.5% of total health expenditures¹⁰. With age-related health issues becoming more prevalent, these high healthcare expenses have quickly depleted the financial resources of older adults, worsening their economic insecurity.

Emotional and social isolation are prevalent issues faced by older adults, both in Nigeria and around the world. Emotional isolation is often characterized by feelings of loneliness, depression, and anxiety. Perissinotto *et al.*¹¹ asserted that lonely and socially isolated older adults are at higher risk of developing chronic conditions such as heart disease, hypertension, and depression. Furthermore, social isolation has been linked to increased mortality rates among older adults. Like 26% higher risk of death among the elderly are socially isolated individuals¹². The lack of emotional support and companionship could have detrimental effects on their mental health and overall well-being¹³.

Despite the vulnerable nature of the aged people; the elderly population can also play a crucial role in managing their challenges and contributing to various aspects of communal well-being. These responsibilities can promote their physical and mental health.

The elderly are responsible for prioritizing their physical and mental well-being and setting examples for younger generations. According to Anderson and Durstine¹⁴ regular physical activity can significantly reduce the risk of chronic diseases among older adults.

Maintaining robust social networks is vital for combating loneliness and enhancing overall well-being. Elderly individuals can actively engage in community activities, religious gatherings, and intergenerational programs like storytelling to foster social connections. The Global Age Watch Index ranks Nigeria 73rd out of 96 countries in enabling environments for older persons¹⁵. Improving social infrastructure and promoting age-friendly communities can enhance well-being and promote social integration among the elderly.

Despite the importance of these responsibilities to manage or reduce the challenges of the elderly, the lack of literature hinders our understanding of the nexus between the challenges and the responsibilities of the elderly. Thus, this study seeks to examine the effect of responsibilities (regular physical activity, maintaining a sense of purpose, and maintaining a social network) of the elderly on their challenges (health issues, financial insecurity, and emotional and social isolation).

MATERIALS AND METHODS

Study area: The study was carried out across the three senatorial districts of Bayelsa State (West, Central, and East). Bayelsa State was created in 1996 out of the old Rivers State and is made up of eight Local Government Areas. The occupations of Bayelsans are mainly farming and fishing, with a handful of civil servants. The capital of Bayelsa State is Yenagoa. Bayelsa State shares a boundary with Rivers State to the East and Delta State to the North across the Niger River for 17 km and the Forçados River for 198 km, with the waters of the Atlantic Ocean dominating its Southern borders. It has a total of 10,773 km² (4,159 sq mi). The state is geographically located within Latitude 4°15 North and Latitude 5°23 South. It is also within Longitudes 5°22 West and 6°45 East^{16,17}. The state is bounded by Delta State on the North, Rivers State on the East and the Atlantic Ocean on the Western and Southern parts. The state comprises eight Local Government Areas: Ekeremor, Kolokuma/Opokuma, Yenagoa, Nembe, Ogbia, Sagbama, Brass, and Southern Ijaw. Being in the Niger Delta, Bayelsa State has a riverine and estuarine setting, with bodies of water within the state making the development of significant road infrastructure, quite difficult¹⁶. The study duration spanned from October, 2023 to October, 2024.

Research design: A cross-sectional, descriptive correlational design was employed. The participants of this study were a total of 300 individuals within the minimum age bracket of 65 years across the three senatorial districts of Bayelsa State. The number of participants in this study was calculated with a significance level of 0.05 and an effect size of 0.25 to secure 80% or more of statistical power for multiple regression analysis of the G Power 3.1.2 program¹⁸. Therefore, the appropriate sample size was 320 persons. Considering the dropout rate of about 15%, 300 people were asked to fill out a questionnaire. The number of samples in this study was 293 (97%), excluding 7 who did not respond or omitted questionnaires, and were finally used for data analysis.

Ethical clearance: The ethical clearance and approval were obtained from the Bayelsa State Ministry of Health Ethical Board. To ensure international conformity, the research protocol adhered stringently to research ethics and protocol as the participants individually gave consent before the administration of the research tool.

Data collection: The instrument for the data collection was a questionnaire. Questionnaires were administered to all the participants and were filled appropriately. Questionnaires with necessary details were rejected.

Statistical analysis: This paper adopted a survey design to achieve the objectives of the study, using a sample of 300 elderly persons in the Yenagoa Metropolis. As such, 300 questionnaires were distributed to the participants. The study also adopted descriptive and Spearman Correlation Coefficient data analysis techniques at 0.05 significance levels with the aid of SPSS software version 23. Choosing these techniques would enable the researcher to achieve the purpose of the study.

RESULTS

Out of the 300 participants based on the sample size of the study through which questionnaires were administered, 293 participants responded to the questions which amounted to a 97.3% participation rate. This implies a high level of participation in the study area.

Table 1 shows a brief description of the demographic features of the respondents of the study. The table shows above, 180 (61.4%) of the respondents are within the age bracket of 65-74 years, 101 (34.5%) are within the age bracket of 75-84 years and 12 (1/3%) of the respondents are within the age bracket of 85 and above. Table 2 shows above, 96 (32.7%) of the respondents are males while 197 (67.3%) are females. Table 3 shows, 150 (51.2%) of the respondents are unemployed, 31 (10.6%) are self-employed,

and 112 (38.2%) are retired. Table 4 shows, 293 (100%) of the respondents said, they have one health challenge or the other and that they have limited access to healthcare services due to financial constraints, low family support, etc. 293 (100%) which is all the respondents said, they are financially challenged, while 216 (77.1%) said they are emotionally depressed due to social isolation. Table 5 shows that the null hypothesis (There is no significant effect of regular physical activities on health challenges of the elderly) is rejected as the p-value (0.000) is less than 0.05 levels of significance. The coefficient of their relationship (-0.862) depicted a negative and strong relationship between regular physical activities and the health challenges of the elderly. This means that there is a significant effect of regular physical activities on the health challenges of the elderly in the Yenagoa Metropolis. As regular physical activities of the elderly increase via adherence to a balanced diet, engaging in regular exercise, and attending medical check-ups, the health challenges of the aging and the aged adults will decrease. Table 6 above shows that, the null hypothesis (there is no significant effect of maintaining a sense of purpose on financial insecurity of the elderly) is rejected as the p-value (0.000) is less than 0.05 levels of significance. The coefficient of their relationship (-0.797) indicated a negative and strong relationship between maintaining a sense of purpose and financial insecurity of the elderly. This means as elders maintain a sense of purpose through savings and investment while they are young, they will reduce their level of financial insecurity when they are old. Table 7 shows that the null hypothesis (there is no significant effect of maintaining a social network on the emotional and social isolation of the elderly) is also rejected as the p-value (0.000) is less than 0.05 levels of significance. The coefficient of their relationship (-0.922) indicated a negative and strong relationship between maintaining social networks and the emotional and social isolation of the elderly. This means that the aged maintain social networks through active engagement in community activities, religious gatherings, and intergenerational programs to foster social connections to reduce their level of emotional challenges and social isolation.

Table 1: Age of the respondents

Age (year)	Frequency	Percentage
65-74	180	61.4
75-84	101	34.5
85 and above	12	1.3
Total	293	100

Source: Researcher's SPSS Computation, 2024

Table 2: Sex of the respondents

Sex	Frequency	Percentage
Male	96	32.7
Female	197	67.3
Total	293	100

Table 3: Occupational status of the respondents

Employment status	Frequency	Percentage
Unemployed	150	51.2
Self-employed	31	10.6
Retired	112	38.2
Total	293	100

Source: Researcher's SPSS Computation, 2024

Table 4: Challenges of the elderly

	Frequency	Percentage
Health challenges	293	100
Financial challenges	293	100
Emotional and social isolation	226	77.1

Table 5: Spearman's rank correlation analysis between health challenges and regular physical activities of the elderly in Yenagoa Metropolis

Spearman correlation coefficient	p-value	Significance status at 0.05	Sample size
-0.862	0.000	Significant	293

Table 6: Spearman's rank correlation analysis between financial challenges and maintaining a sense of purpose of the elderly in Yenagoa Metropolis

Spearman correlation coefficient	p-value	Significance status at 0.05	Sample size
-0.797	0.000	Significant	293

Source: Researcher's SPSS Computation, 2024

Table 7: Spearman's rank correlation analysis between maintaining social network, and emotional and social isolation of the elderly

Spearman correlation coefficient	p-value	Significance status at 0.05	Sample size
-0.922	0.000	Significant	293

DISCUSSION

The study ensured a balance of demographics such as age, gender, and status of employment (Table 1-3). Furthermore, the findings revealed that 93(100%) respondents who participated in the study accepted having one health challenge or other studied factors (Table 4). However, the result of the empirical investigation at a 5% level of significance indicated a significant effect of regular physical activities, financial capacity, and social responsiveness on the health challenges and ancillaries of the elderly in the Yenagoa metropolis (Table 5-7).

As elders take responsibility for engaging in regular physical activities such as adherence to a balanced diet, regular exercise, and attending medical check-ups; their health challenges will decrease as opined a team of researchers¹⁹. Exercise training in older people has been associated with health benefits such as decreased cardiovascular mortality, cardiac failure, and other ancillary dysfunctions associated with the heart²⁰. The scientific basis could be attributed to the changes in the cardiac autonomic balance resulting in an increase, or a relative dominance, of the vagal component²¹. Furthermore, exercise training in older people decreases resting and submaximal exercise heart rate and systolic and diastolic blood pressure and increases stroke volume²². This is quite beneficial and has the preponderance of increasing longevity, and the healthy state of the elderly.

Similarly, 93 (100%) of the respondents revealed a negative financial impact on their livelihood. This could be attributed to their retired status, poor saving habits, and entrepreneurial incapability. However, the findings also indicated that as elders take responsibility for maintaining a sense of purpose through savings and investment while they are young or through informal caregiving, childcare, and community development projects it impacts positively on their financial and mental capabilities. Studies have shown that people with a higher generally perceive stressors as less stressful and emotionally recover from negative stimuli more rapidly when compared to people with lower purpose²³⁻²⁵. This is in contrast to those with lower purposes, and negatively inclined. Thus, the high purpose might disrupt the stress-unhealthy behavior pathway. People with a higher sense of purpose also display a heightened ability to curb impulsivity²⁶ and report higher self-efficacy²⁷.

Moreover, 71 (76.3%) of the elders who participated in this study affirmed being emotionally depressed due to social isolation and other reasons. However, from the findings; maintaining a social network through active engagement in community activities, religious gatherings, and intergenerational programs will reduce their level of emotional challenges and social isolation. This opinion has been validated by Whear *et al.*²⁸ and other studies. Social inclusion and participation are apt for living a balanced and stable geriatric livelihood. A lot of diseases and disorders such as dementia and cognitive decline are basic progressive disorders more vulnerable to the elderly²⁹. In addition, the elderly are at greater risk of social isolation due to a decrease in the number of friends, and relatives, network size, and activity levels³⁰. These are insulators to the health of the elderly and could be averted by the concept of 'building social currency'.

The social currency concept is applied across all facets of life and it involves attracting people of similar mindsets to oneself. The concept has the preponderance of reducing social isolation drastically. This could bring together the elderly and children to support active non-familial intergenerational interaction. It could be an elderly committee or elderly and younger people community in church, society, or organization. Intergenerational interaction is routinely referred to as intergenerational practice. Intergenerational practice is defined as an active process that 'aims to bring people together in purposeful, mutually beneficial activities which promote greater understanding and respect between generations and contribute to building more cohesive communities'³¹.

CONCLUSION

The study found that all participants (100%) faced health and financial challenges, with 76.3% experiencing emotional depression due to social isolation. The findings highlight that engaging in regular physical activities, maintaining a sense of purpose, and fostering social connections can help mitigate emotional and social isolation among the elderly. Therefore, it is recommended that the elderly prioritize these activities to improve their overall well-being.

SIGNIFICANCE STATEMENT

The study highlights that 93% of the elderly face significant challenges, including health issues, financial constraints, and social isolation, which contribute to increased mortality risk and reduced life expectancy. Addressing these challenges through pre-geriatric financial planning, fostering social connections via social currency, and promoting regular physical exercise could substantially improve the quality and longevity of life for the elderly. Future research should focus on developing community-based interventions, evaluating the effectiveness of social and financial programs, and exploring innovative strategies to enhance the overall well-being of the elderly population.

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