

The Health Implication of Falls and the Manner at Which Fall is Perceived among Older Adults in Nigeria

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Abstract: - The paper focuses on exploring the healthcare implications of falls on older adults in Nigeria by identifying their perception and involvement in fall prevention programs. The root causes, associated risk factors, and the consequences of fall were also considered. Relevant literatures were reviewed to draw appropriate inferences. Using an in-depth interview method, this study attempted to uncover how older adults perceived fall related issues and their willingness to participate in any activity that is designed to reduce the prevailing incidents of falls among older adults. 60 older adults, 65 years and above were interviewed during the celebration of the world Senior Citizens Day at National Hospital Abuja on 2nd October 2019. The history of fall, time of occurrence, nature of fall, the possible cause(s), and risk factors associated with fall constituted the focus of discussion. Findings revealed that knowledge about prevalence of fall were not widely disseminated, and perception about falls and its prevention are low and were not usually reported due to cultural and religious beliefs. It is recommended that government should include the elderly in its policy plan and appropriate measures should be taken to provide for the elderly 65 years and above in the National Health Insurance Scheme. Proper reporting of falls among the elderly via a registry should be instituted alongside a fall prevention training for health professionals in the specialty of geriatric care. Using validated tools in the assessment, prevention, and management of falls will be a first step towards reducing the menace of falls among the older adults in Nigeria.

Keywords: Healthcare implications, Falls, Risk assessment, Older adults, Nigeria

I. INTRODUCTION

Fall in older adults within the age of 65 and above is becoming a source of increasing burden for individuals, families, and the nation. Fall in the elderly is a significant cause of morbidity and mortality, and as one increases in age, the risk of falling also increases as the frequency of occurrences increases as a person live to be older (Jill, 2018). Solis & Champion (2016) identified fall as the 4th cause of death in the United States, and added that a previous incident of fall doubles the risk of reoccurrence of another fall. Tarreef (2014) also observed that falls in the elderly are a significant cause of morbidity and mortality. Injuries from fall related incidents are associated with cognitive impairment, sleep-related injurious fall, the medication used for pain and depression, and adverse effects of hospitalization where there

is decreased mobility. Therefore, fall and possible risk factors should be considered to ensure that older adults enjoy the freedom and live a dependency-free life.

Heerema (2019) associated falls in elderly to dementia, whereby efforts should be made to anticipate the risk for falls and prevent it. The common reason for fall is usually associated with muscle weakness, multiplier effects of medications, acute and chronic medico-surgical conditions, impaired vision, hearing defect, and hazard in the home environment. Other causes of fall include poor medical health, chronic illness/disability, and urinary incontinence (Solis & Champion, 2016). The aftermath of falls is often accompanied by mild to severe injury ranging from fractures, stroke, unconsciousness, and impairment that could require hospitalization or even death. Fall in older adults are destabilizing as it may lead to functional independence resulting to immobility and a reduction in the quality of life.

II. STATEMENT OF THE PROBLEM

Fall in older adults is a major public health problem as it could be disabling and life-threatening. It has been found to be a cause of increased independence and a low quality of life often requiring institutionalized care. Fall is usually unreported in Nigeria due to our socio-cultural and religious belief unless it is evident by injury or disability or the need for possible long-term care/ emergency care and hospital admissions. Fall increases the burden on the inadequate health care system, reduces the quality of life of the elderly and their families, increases cost implications of caring for older adults, has legal implications which impacts negatively on the few available healthcare personnel we have in Nigeria. The paper attempts to explore the perception of older adults about falls and the barriers to the involvement and implementation of preventive measures. We also considered the nature, causes, risk factors, prevention and management of falls and its health implications among older adults aged 65 and above in Nigeria through the review of relevant literature.

III. LITERATURE REVIEW

Fall is defined as an unintentional loss of balance or gait as a result of position change due to contact with the ground (Renfro & Fehrer, 2011), while Kruschke & Butcher (2017) described fall as any sudden drop from one surface to a

lower surface., Falcão et al. (2019) identified fall as an unintentional displacement of the body to a level other than the initial position that is caused by multiple factors, whether it is accompanied by injury or not. Falls are common injuries among the elderly, and it is a reason for hospitalization and increased burden for carers (Ang et al. 2010). Thus fall, and its assessment should be considered as part of health care quality control measures for older adults.

Unintentional fall increases in the population of 65 years and above, as 1 in 3 adults in this age group experience an episode of fall in a year. 20 to 30% of the falls result into moderate to severe injuries (Renfro & Fehrer, 2011). Falcão et al. (2019) classified risk of fall to low, medium and high, and emphasized the need to assess the aged for risk of fall due to the aging process which is usually accompanied by functional decline. This can be done explicitly by using validated tools and professionally developed protocols for the assessment and evaluation of falls in health facilities. Therefore, falls are regarded as an unintentional and sudden drop from a higher surface level to a lower level that could result in injury or harm and is accompanied by physical and emotional stress or discomfort for the faller and the caregiver.

There is an increasing incidence of falls and fall-related injuries among the elderly with an associated increase in demand on the health care system. This is accompanied by a corresponding responsibility on the caregivers before or after hospitalization and the sequel of prolonged hospitalization and cost. Falls accounts for approximately 6% of all injuries related risks with over 5% deaths as a result of such injuries annually as documented by Haddad et al (2018). Older adults in the age group of 65 and above experience fall due to multiple reasons Renfro et al. (2011). It is believed that the Nigerian culture and perception account for the reason why many incidents of fall are under-reported (Haddad, Bergen & Luo, 2018). Under-reported falls have become big issues of concern in Nigeria as it hinders the desire to achieve a desired quality of life by the older adults who are not able to contribute meaningfully to the family and nation due to sustained and untreated injuries from falls.

In a study by Muñoz Cobos et al. (2019), women were identified as common fallers i.e., 84.9% of patients who participated in an urban health care study between 2014 and 2017 were women. Phelan & Ritchey (2018) also documented that 1 in 3 adults 65 years and above and 1 in 2 adults 80 years and above record fall one time or the other. There is increased vulnerability to falling with increasing age, as identified by Lach & Noimontree (2018). It was also documented by Beegen & Messinger-Rapport (2015) that fractures, traumatic brain injury and death can occur due to falls in the elderly, other causes include increasing age, polypharmacy, cognitive impairment and sensory deficits. They further suggested that there is need to identify all possible risk factors for falls in order to design proper and prompt interventions. Confusion, depression, and unsteady gait were also identified as causes of

falls in older adults, especially in those on long term care and nursing homes due to chronic illnesses (Abraham, 2016).

The study is anchored on Ida Jean Orlando, a nurse theorist who propounded the nursing process theory with an emphasis on the needs of patients and the need to meet the requirements as promptly as possible with consideration on priority. The underlying physiological needs are treated as the first area of need, as highlighted by Abraham Maslow, while the health belief model (HBM) propounded by Howard Becker, which was developed to explain and predict health-related behaviors, especially the utilization of health services. HBM was also used in describing the self-protective behaviors exhibited by users of healthcare facilities.

Methods of Assessment of Risk factors of Falls

Falls in the elderly are known to be due to modifiable and nonmodifiable factors. It is crucial to know, understand, and identify the healthcare implications of falls among the elderly. This can be done by assessment of risk factors and working out modalities for quick intervention and prevention of disability and death.

Fall and non-fall identifiers with increased accuracy are possible with the aid of the support vector machine (SVM) which may be required by health care professionals in the assessment of falls. Falcão et al. (2019) also utilized the Morse fall Scale to evaluate the risk of falls. The response by Muñoz Cobos et al. (2019) entails the assessment of individuals by considering sensory problems, balance, orthostatic hypotension, use of psychotropic, and antihypertensive drugs in the treatment of depression and hypertension. The Anxiety/ depression Golberg Scale and Unipodal Station Test are ideal and were often used in the assessment of high-risk persons. Abraham (2016) observed that fractures are collective trauma in older adults when they fall and constitutes a basis for increased utilization of health care; he further identified vital areas of assessment of risk factors by the use of visual acuity, pain scale measurement and focused on the prevailing medical condition. Fall Risk and Assessment Tool (FRAST) was suggested by Renfro & McCaffrey (2011) for the identification of elderly with high-risk factors in the primary care settings. The aim was to review the best possible pieces of evidence using a scoring modality and utilizing the best actions as a means of intervention that is quick, safe, and cost-effective. Ang et al. (2010) suggested the need for a comprehensive risk assessment of falls to enhance functional capacity. Sun et al. (2019) suggested the interactive visualization approach for clinicians to aid quick, accurate interpretation of fall test scores for the assessment and improvement of decision making in the management of fallers to achieve a better client outcome. Maruya et al. (2019) documented that pain in the lower limb can increase the risk of falls and fractures and that evaluation of pain will promote the prevention and make treatment of falls associated with older adults more effective.

Prevention of fall by prediction using assessment score was identified by Komuro & Miyazaki (2014), while a willingness to engage in the fall prevention activities/programs to reduce the burden and dependence on the family was highlighted by Chen et al. (2015). There is increasing health care cost as a result of falls in the elderly according to Lach, Krampe & Phongphanngam (2011).

Proper perception of falls by the elderly, assessment through the use of validated and accurate risk assessment guidelines or tools for the prevention and effective intervention will ensure less dependent older adult and a better quality of life. It will also eliminate functional dependence on carers and family members and the cost of medical care. Fall prevention will furthermore reduce the rate and duration of hospitalization, use of a prosthesis or assistive devices.

Risk factors of Falls

The use of diuretics, urinary incontinence, visual deficit, and heart failure were identified as common causes of falls in hospitalized adults. Other important issues to be highlighted is the body mass index which can be a risk factor for loss of balance. An alert system to report falls by the use of automatic fall devices for the early detection, and prompt care was advocated by (Aziz, Klenk, Schwickert, Chiari, et al., 2012). Kamińska et al. (2018) noted that virtual reality training could be done to increase motor function and reduce the incidence of falls by promoting static and dynamic balance. Ahmadiyahangar et al. (2018) observed falls to be an important cause of fractures in the elderly and conducted his study by interviewing the participants in his research and reviewing medical records to establish the existence of a relationship between muscle strength and fall.

Solis & Champion (2016) identified poor mental health as a cause of falls, while Tareef (2014) linked fall to Alzheimer's disease, and Heerema noted that dementia is a cause of falls in the elderly. Abraham (2014) associated fall to depression and confusion or chronic illness that are on placement, palliative, or long-term care in nursing homes. Falls can occur in the case of polypharmacy, whereby the client is on multiple drugs for medical conditions and comorbidities. Falls can occur due to an attempt to urgently use the restroom as a result of incontinence, changing of position from sitting to standing position, trying to hurry out of bed, or during the performance of daily activities like bathing or dishwashing. Wet kitchen or bathroom floors are common causes of falls in the elderly, as reported during the interview session.

Reduction of physical strength, flexibility, and neuromuscular coordination increase the chances of falls in the elderly this is usually associated with an attempt to climb a staircase, wet floor during usual house cleaning and maintenance or when there is no sufficient light or occasional blackout experienced when the source of light is interrupted. These modifiable risk factors should be eliminated in the process of assessment and evaluation of falls by carer and

professionals who are responsible for the home and institutionalized care of these vulnerable groups.

How Falls Affect Older Adults

Fall is a major cause of injury, disability, and death; older adults need assistance when they fall, and some actually have accompanying medical complications. Abraham (2016), with Bekibele & Gureje (2010), observed that falls in the elderly result in psychological and physical problems, e.g., fractures, the delayed healing process, and lack of confidence while walking. This is common with those with a history of a previous fall who tend to experience psychological fear of falling again. Some patients also have multiple causes of falls, such as a combination of old age, arthritis and cognitive impairment, urinary incontinence, and the effect of numerous medications. The impact of all these multiple factors may require admission into an acute care health center or nursing home placement with the associated burden of health care finances by the caregivers. Health care implications of falls in the elderly are not the treatment alone i.e.; it involves medical treatments and hospitalization. There are also associated with legal implications and the need to pay for litigation, which may not be covered by health insurance. Health facilities that are responsible for the care of the elderly often advocate the use of protective side rails on beds or staircases in the facility. While in the United States of America, the department of human services, through medicare and Medicaid services, pay bills fall related hospitalization for older adults, it is not obtainable in the Nigerian health system because the packages provided within the framework of national health insurance scheme (NHIS) are not all-encompassing to accommodate the elderly except the few rich ones that can afford to pay out of pocket, on the contrary, medical tourism may be another option. The health implications of falls in these older adults have a multiplier effect on their personal life, the family, and increase the cost of their health care needs. Fall lowers the life expectancy of the older adults and increases the possibility of dependency and resultant unfulfilled dreams.

Fall Preventive Mechanisms

Support from informal caregivers (i.e., family members and significant others), community groups, government and non-governmental organizations will go a long way in preventing falls as well as its associated burdens and cost. Abraham (2016) suggested toileting rounds, walking/exercise, patient and family education as an effective means of preventing falls, or its reoccurrence in the elderly in a nursing home or an inpatient facility. Self-management by older adults through health and safety education should be based on peculiar individual situations, home type and location, preferences, local resources, available programs, and health care services.

IV. METHODOLOGY

Relevant pieces of literature were reviewed to draw inferences from authors in different locations within and

outside Nigeria. Secondly, 20 % of 300 older adults, 65 years and above, were purposively selected and interviewed based on their consent at the geriatric clinic of National Hospital Abuja between 15th July and 15th August 2019. This was done during the waiting time with the assistance of the family members and healthcare professionals. The items to guide the structured interview were the bio-data, history of falls within the last 1 to 2 years fall and possible cause, history of medication use, type of drug, prescribed/ non prescription by a physician or over the counter (OTC) drug, history of comorbidities, history of day time/night sleep, the nature of injury sustained if any, and if there was any complication(s). Then, was it reported in the clinic for the management or self-managed at home. Thirdly additional information on fall was collected by interacting with a group of the elderly at a forum for the celebration of the World Senior Citizens Day in the Hospital geriatric clinic at National Hospital Abuja, (2019)

V. DISCUSSION OF FINDINGS

A fall is a common event among the elderly aged 65 years and above. The main associated factors were multifaceted. It was observed to be common in women (60%), which is in agreement with Muñoz et al. (2019), who noted that women are common fallers. Most adults with a history of falls had medical issues as comorbidity that was associated with the fall, as documented by Jung (2016). The findings revealed that most of the elderly were educated and were retired officers from the civil service. This is expected since the clinic is situated in a federal tertiary health institution and also characteristic of an urban setting. These women were comfortable reporting their incidence of falls but lamented that some of their age mates who resides in rural areas and illiterates and as such feel stigmatized to report any occurrence of fall.

The type of occupation at old age is an issue to be considered. For example, a carpenter or palm wine tapper is at a higher risk of fall with increasing age. Such modifiable factors should be put into consideration during the risk assessment of the elderly. They were all within the age of 65 and above, which is in line with the criteria of selection of the participants, and it was observed from the interview proceedings that the risk of falls is higher with increasing age. This is common in adults with visual impairment who stand the risk of a road accident. It was also discovered that most falls were not reported due to fear, cultural and religious taboos except the complicated ones that require urgent medical attention.

There were factors for and against the awareness and readiness to participate in fall prevention programs, as highlighted in discussion with the older citizens. Some refuse to agree with fall prevention programs, while others accept the proposal to teach the fall prevention programs into the care of the elderly.

A participant said, *“how can I say I fell at my age; it sounds ridiculous! ‘People will laugh at you. In fact, I don’t like to disturb my children”* (Bose, 75 years)

Another participant believed that *“falls are inevitable and the issue of prevention is not necessary”* (Edwin, 65 years).

It is, therefore, essential to create awareness, educate and implement fall prevention programs in the senior citizens' centers and communities. This should be targeted at the eradication of superstitious beliefs and taboos about falls and its prevention, especially among those with the history of falls.

The issue of falls is not usually discussed as it is believed to be shared among children and not elderly. It is seen as carelessness and inability to concentrate on what one is doing. Most elderly feel they don’t want to disturb their children or carer with such a report.

A respondent explains that those who fall are often ashamed of themselves and sometimes, feel stupid when fall occurs. He argued that *“we should discuss more important things in life than fall, whoever falls should get up now* (Olu, 66 years).

“We are ready to do the program designed for us as far as the location is okay. We can make arrangements for transportation. I see it as a means of socializing and interacting with each other post-retirement” (Inyan, 67 years).

“Fall prevention programs should be a part of our care, I fell before, and I don’t want to fall again because it can be dangerous. It was an unpleasant situation for me” (Ruth, 68 years).

As Per Willingness to Attend a Fall Prevention Program

The first responder argued *“it is better to associate with your peers than to be a laughing stock amidst those youths, if I fail, I can always try again with the assistance of the professionals, I am interested in attending a fall prevention program”* (Peter, 65 years)

As Per the Most Appropriate Time of the Day to Attend A Fall Prevention Program

The responder reported, *“another critical factor is the time of the program, it is better in the morning so that we can go for shopping and religious meetings in the evening with other family members”* (Seun, 66 years)

Some adults are interested in fall prevention but wish it is more flexible and adult-friendly in nature and timing. Most adults feel embarrassed and are not willing to disclose a fall, as observed from the interview conducted, which is in line with Shuman et al. (2015), while others feel ashamed of even reporting it. There is diminished muscle strength in the elderly as aging occurs and activities are often restricted after each incident of fall. Motivation is required to seek intervention to prevent another fall, but unfortunately, there

are no systems in place that are designed to provide the needed motivation to overcome the fear associated with fear. Psychological care is essential to demystify fear of an inevitable fall and to maintain the required confidence and self-esteem for positive living.

Unfortunately, there appear to be individuals whose opinion differs from the general consensus that falls should be prevented:

I am of the opinion that there is no need for fall prevention programs, it is a normal sign of old age; something must kill a man when the time comes. No need to bother about the fall issue. It is time-consuming and a waste of resources (Tolu, 65 years).

Many believe that the need for fall prevention mechanisms should be encouraged. *“The trained Personnel should be encouraged to exercise enough patient with older adults because old age is another phase of their lives”* (Grace, 62 years). Her argument buttresses the need for clear and precise communication to those needing help as it is believed that clear statements will be beneficial towards understanding and following instructions.

The elderly expects good understanding and a high level of professionalism in the process of interaction with them. The way fall is perceived is a product of our belief system and culture whereby falls in the elderly is seen as a taboo or bad omen. The social class and organization of the individual is also a determinant on the perception and knowledge about falls. Identification of cultural and religious influence on the perception of falls, the act of reporting it, and doing all that is required to prevent a fall or its reoccurrence is essential if the quality of life of the older persons must be sustained. This can be achieved through awareness and health education of the elderly and family members on falls and its prevention (Abraham, 2016).

There were interesting habits that were uncovered during the interview. It is evident that fall reporting was selective and the victims only pick and choose which falls that need be reported, and which one that will not be reported. Falls that were associated with co-morbid conditions like diabetic ketoacidosis, uncontrolled hypertension, and cardiovascular diseases were usually reported since it has become an emergency, possibly with loss of consciousness. Falls that were not accompanied by visible injuries may not be said and would be managed at home by massaging the affected parts and the use of pain relief medications bought over the counter. Reports were only made when swollen body parts were noticed, and this is usually associated with pain and redness of the affected region. Falls that result in loss of consciousness are usually reported at the emergency unit, and few cases have been associated with stroke, sudden collapse, and death. The statement by George affirms the claims made in this paragraph, *“I admitted falling separately until an eye check-up was performed, and a pair of glasses was recommended”* (George, 69 years).

This is need for regular check-ups with different specialties to ensure a multidisciplinary approach to the care of the elderly and the prevention of falls is important.

According to Tareef (2014), fall has been identified as a multifactorial issue requiring a team of professionals who will work together in the prevention and management of falls to prevent functional and psychological dependence, mortality, and the burden of health care cost implications. Two of the clients interviewed had a fall due to stroke, which was as a result of high blood pressure and is currently undergoing physiotherapy as a means to restore health and to aid quick rehabilitation. This is vital as suggested by (Abraham, 2016) that initial fall risk assessment and grading is required to determine the level of severity in order to effectively plan the needed intervention such as professionally controlled, monitored and evaluated exercises have been proven to be useful in fall prevention and management as opined by El-Khoury, Cassou, Charles & Dargent-Molina, (2015). From records reviewed, some elderly had a fall and became unconscious and had to be on long term care at the intensive care unit and later died after 3 to 5 months of care, and corresponding accumulation of huge medical bills with inability of the family members to pay out of pocket. These conditions and events will more likely exert devastating effect on the family finances and psychological wellbeing.

Fall screening (Fall Risk Assessment and Screening Tools, FRAST) assessment and management were found to be of importance in the care of the elderly, as confirmed by Renfro & Fehrer, (2011). The use of standardized tools and measurement scale for pain has been proven to aid prevention of falls in all categories of falls whether low, moderate or high as identified by Falcão et al (2019) This is to avoid fractures, traumatic brain injury and increasing death as determined by (Beegen & Messinger-Rapport, 2015). This showed that the prevention of falls is far better and safer than the occurrence of a fall with the attendant physical, psychological, and financial implications.

Preventive Measures

As the researcher interacted with a group of elderly on a program to mark the world senior citizen's day tagged "Journey to Age Equality," advice on a regular visit to the ophthalmologist, ear/nose/throat physician and dentist is essential. Wearing low heeled/flat shoes was stressed as well as taking daily walks as tolerated to strengthen the weakened neuromuscular coordination, further coordination is a means of preventing falls or its reoccurrence. Regular blood pressure and blood glucose checks were advocated to avoid cardiovascular events and diabetic ketoacidosis and complications on another vital organ of the body. It was also emphasized that adequate reporting of drug side effects of treatment would aid in addressing the drug /drug interactions that might occur due to multiple drug use and non-prescription drugs were discouraged.

Surveillance system and policy relating to fall prevention was identified by Beegen & Messinger-Rapport (2015) as an important function of government in fulfilling their obligation towards the quality of life of the elderly. Fall prediction, fall assessment score and fall prevention are measures to be put in place in the care of the elderly as suggested by Komuro & Miyazaki, (2014) as these will assist the health professionals in reducing the burden of fall and fall-related injuries on the available health facility. Home, health care services, /visit and follow up should be considered when necessary to effectively modify the lifestyle of the elderly to ensure autonomy and life of freedom as highly desired by the aging population. Home and environmental hazard assessment, weight control tolerable exercise and recreation facilities should be considered in the modification of lifestyle of the elderly.

Multidisciplinary and culturally adaptable measures should be put in place as opined by (Jung, 2016) as these will ensure compliance to prevention measures and natural rehabilitation and adaptability of those with injuries from fall and prevention of a possible reoccurrence. There are proposals on the use of guidelines to assess risk of falls that can be used in the geriatric clinic as opined by Lach & Noimontree, (2018) for example the pain assessment tool by Maruya et al. (2019), Morse fall scale by Falcão et al. (2019) are validated tools for the assessment of risk of falls while virtual reality training by Kaminska et al. (2019) will assist in promoting stability and balance by improving motor functions, and muscle coordination Fahlström et al. (2018) opined that individual risk assessment for possible fall would be more beneficial and the interventions should be geared towards the client and behavioral change is a better outcome.

There is a possibility that fall could be better managed when monitored and evaluated in collaboration with the physiotherapists and other health care professionals who are better equipped to assess the risk factors, and to make decisions to prevent and effectively manage falls in the older adults. Ang et al. (2010) believe that health education of the elderly and care givers, and eliminating defined hazardous environment are key to avoiding falls which has become an imminent healthcare concern with older adults, both at home and in institutions. Fall prevention strategies are meant to prevent further falls and injuries. There should be public awareness on fall through media and role modeling to ensure proper motivation of those involved in fall prevention programs. The programs will be more effective if the social context is considered, and if it is patient-centered and culturally appropriate.

Barriers to Fall Prevention

The identified barrier includes inadequate professionals to effectively guide and follow up on the care of the elderly in the prevention and management of falls. Others are low levels of awareness and lack of family education, cost of transport to a facility, and time factors. There is a need to

motivate the elderly on the prevention of falls to prevent re-occurrence, and to ensure adequate reporting networks in the management of falls.

VI. RECOMMENDATIONS

Fall prevention strategies should be included in any training targeting those providing care to older adults as a national priority, as it is believed that such steps will reduce the dependency of older adults on the family and the limited health workforce and facility. Barker et al. (2015) advocated for fall prevention activities through patient-centered education and support to enhance behavioral change. Juckett (2019) also suggested the implementation of fall prevention guidelines (FPG) and collaboration between the older adult, healthcare professionals, and the caregivers to ensure care coordination based on home and community settings. The attitudes and qualities of the professionals is vital to the successful implementation of fall prevention, and visitations, as well as follow ups are essential aspects of the program. Fall prevention is not an easy task to accomplish, but can be achieved by utilizing a multidisciplinary approach to risk assessment, prevention, and management of fall by all the stakeholders.

In planning our buildings, especially at retirement, older persons friendly homes should be considered. Rails are advised at the sides of the staircase, and bathrooms/toilets. Floors should be adequately protected to prevent falls. The use of anti-slip shoe devices, visual assessment, programmed exercise, use of medications, and vitamin D supplementation is vital.

Implication for Policy

Comprehensive geriatric health care policy and the program is thereby advocated. Government and employers of labor have an obligation towards the aged in terms of affordable social and health care insurance scheme/pension scheme. Creation of awareness through the mass media especially television and radio. Provision of subsidy and transportation to the health care facility to ease the plight of the elderly to access required health needs.

Adequate reporting of falls to registry to keep track of records/data needed for planning, policy formulation, and research should be a policy mandated requirement. The establishment of gerontology units at the primary care level to meet the needs of the elderly at the rural and urban centers, respectively should be encouraged. Patient safety laws should be enacted and implemented by the federal ministry of health in Nigeria. National safety program for the elderly and development of fall prevention protocol and guidelines in nursing homes and hospital environment should be instituted. Interdisciplinary collaboration, environmental inspection, safety measures, hazard prevention, and possible modification of the environment to suit the individual adults. The training and- training of healthcare personnel in the field of geriatrics and gerontology is highly advocated to ensure availability,

accessibility, and affordable care in the prevention and prompt treatment of falls and to avoid complications.

VII. CONCLUSIONS

The issue of falls and its health care implications cannot be undermined in the health concerns of older persons in Nigeria. The quality of life expected by the elderly should be seen as a right and not a privilege; therefore, the health-seeking behavior of the older adults should be encouraged. Health care for older persons should encompass fall risk assessment by utilizing the appropriate guidelines and measures to be put in place to possibly minimize the incidence of falls to prevent further complications that are usually associated with falls in older persons. The desire of the older persons is to enjoy life in its fullness and experience fulfillment as they age gracefully by living an independent entity that can cope with the activities of daily living. This can be achieved by empowerment and self-care motivation of the individual older adult and positive life changes as required. Fall and its health implications should be considered with a sense of responsibility by all stakeholders in the care of the elderly in all ramifications. Though fall should not be seen as an inevitable aspect of aging but an event that can be avoided or controlled to ensure an independent life of quality for the elderly in Nigeria.

VIII. SUGGESTION FOR FURTHER STUDIES

An expanded study to be conducted nation wide with due consideration on the six geopolitical zones in Nigeria. The impact of physiotherapy coordinated exercises on fall prevention in the elderly in Nigeria. Social implications of fall and available health care services among the elderly in rural areas of Nigeria. Ethnography study of falls among elderly dwelling in Nigerian communities

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