HOME ACCIDENTS EFFECTS ON THE PHYSICAL AND SOCIAL WELL-BEING OF THE AGED

Oladeji, Olabisi Stella
Department of Adult Education,
University of Ibadan, Ibadan, Nigeria

Abstract
This paper examined some of the key issues facing physical and social well-being of the aged people due to home accidents. The study was carried out in Ogun State of Nigeria to determine the effect of home accidents on the physical and social well-being of aged people. Descriptive research design of the ex post facto was adopted for the study. A multistage sampling technique was used in the selection of the communities under study. A total number of 500 subjects were randomly selected from the communities under study. . The data collected were analyzed using frequencies, percentages and Chi-Square statistical tools. The findings revealed that for the elderly population the kitchen is a potentially dangerous place for the aged people. This is followed by stair and bathroom at 14.0% respectively. The room and living room also tie 30.0%. The findings of the study revealed that falls are the most commonly occurring home accident that as discovered from the study among the elderly population sampled. The study also established that home accidents have severe effect on the physical and social well-being of the aged. This study therefore recommended that, a greater awareness should be made by the government, stakeholders, Non-government organizations and concerned persons about the danger of home accidents and its effect on the well-being of the aged globally.

Key words: Home accidents, physical, social, well-being, aged.

Introduction

The elderly members of our society are highly revered, respected and often held in great esteem. They are often seen as the custodians of knowledge due to their experience in life. Sociologically, they are seen as the organizers of the society, and as people through whom intergenerational beliefs and customs are transferred to the younger

generation. The aged in African societies enjoyed privileges that include seniority positions in clans and kinship group because of their age (Doudu, 1998).

There is evidence that the traditional practice of caring for parents is beginning to erode under harsh conditions of scarcity in urban areas. Those fortunate to receive pensions started their career in public service by manipulating their ages so that they will not attain the retirement age quickly Abdah and Mabo (2004). This is why some of them 'die' in active service' Abdah and Mabo (2004).

Nigeria has now adopted a national policy on the care aged well-being of the elderly in Nigeria. The goal of the policy is the substantial enhancement of the dignity, quality of life and overall well-being of the aged in Nigeria, in particular, their economic security, their physical, mental and emotional health, their social participation, integration and sense of belonging and their personal welfare in all other aspects (NPC, 2004).

According to Mullick (2005), the traditional African culture has provisions for how old people should be taken care of. Their extended family and children are expected to provide for them, young people in the immediate environment are supposed to help them run errands. These values, however, are fast becoming a thing of the past. However, African family structure are changing, although, the family as an institution is not disappearing, rather, families are responding and adapting to new conditions, while older persons are adopting new roles within the families.

Non-formal social security systems are therefore the bedrock of support and care in old age in Africa. But, given the forces, the effectiveness of these systems is being compromised. Children may feel less obligated in modern times, or be unable in a harsh economic climate to support elderly parents. Poorly designed and implemented structural adjustment strategies have damaged the capacity of families and communities to support their elders.

Another area is the health care system and their responsiveness, or lack thereof, to older clients. The median age of African population is 18.4years (UNP), 2000); health resources are therefore primarily targeted at children and the youth. Communicable disease is still rampant in African particularly the so-called diseases of poverty. The non- communicable disease health care needs of older

persons are not viewed as a priority and older persons are marginalized in the formal health system.

There is also a general acceptance in African that old age equates ill health and that illness in old age should simply be ascribed to this stage in the life course and not treated. In addition, older persons tend to be cynical about the capacity of Western medicine to heal their illnesses and are thus reluctant to seek medical attention.

Most elderly people have lived safely throughout their lives. They enjoy mostly good health, indeed, most elderly have no experience of heart disease, or of joint or back pain, and ageing only has a minor role in cancer. In fact, the trauma of old age is concentrated usually in the last 3 to 4 years of life and older people live full and increasingly active lives in their own homes. It is therefore, tragic, that so many older people are injured, disabled, or killed in accidents, particularly in and around the home.

The elderly person with poor vision may be unable to detect obstacles in a pathway and may be unable to control stability visual feedback, especially when laced in a situation where visual cues are reduced, e.g. deceased visual contrast and low lighting. Physical factors such as urinary incontinence, insomnia or general fatigue during the active part of the day can all increase the risk of accidents at home.

The domestic place in which accidents occur more frequently is the kitchen. It is followed by bedroom and living room that are the places where people stay longer at home. Stairs appear particularly dangerous having high figures for accidents while exposition to risk is lesser than in other rooms because normally people spend few time on the stairs; bathroom has a similar condition of risk. The samples differ for injuries in garden and other residence outdoors; those are pretty common in mastering centre and in Latium where they care coded as happened in courtyard that is the common outdoor space in an Italian block of flats. The typology of residence is common in Latium region whose most population is included in the metropolitan area of Rome (Pitidis, 2005).

According to Kalula (2004) the incidence of falls increases exponentially with age; an incidence rate of 30% in persons aged 65 and over increases to 50% in persons aged 80 and over 20 to 30% of older persons who fall suffer serious injury, such as hip and other fractures, dislocations, head injury and other soft tissues injuries. Falls

that do not result in serious injury may still have serious consequences for an older person, who may fear falling again which can lead to reduce mobility and increased dependency through loss of confidence.

Fall can occur due to any acute medical illness but often occur in a situation where people have pre-existing multiple factors that increase their risk for falling. A fall results from an interaction of intrinsic and extrinsic factors as well as situational factors and commonly heralds the presence often underlying medical problem (Makinwa, 2005).

Age is a factor that influences the likelihood of a stairway, fall, with the elderly particularly prone to falling. Paul (1985) reported that persons over 65 account for approximately 85% of deaths resulting from stair accidents. As the number of elderly people in the population increases, the problem of stair accidents are likely to increase. In addition, stairway injuries among the elderly (in case over 65) are more likely to end in hospitalization.

The issue here for stairs is that older people are more likely to have problems with vision and balance on stairs and are therefore more susceptible to fall. Bone density also decreases with age, particularly in females, so given a fall; older people are likely to sustain more serious injuries. In addition, the reaction time of individuals decreases with age, so the likelihood of successfully grasping a handrail by the stairway diminishes.

According to Weber (1985), nearly 70% of the falls on stairs and steps involved aged people, aged 65years and above. Within this age group twice as many involved fatalities of women as men. The reasons for the high prevalence of stairway injuries for the aged are that vision and balance deteriorate with age. Balance is affected by somatic function and is often degraded in the elderly. Visual performance often diminishes in moderate to low illumination. Presbyosis (loss of ability to focus on near objects) may also reduce the ability to see clearly step edges. These visual problems may be worsened by the development of cataracts that also decrease visual performance.

According to the National Safety Council (1990), one person dies everyday from using shower/ bathtub in the United States. They concluded that those with least control over their environments-young and the aged have the greatest risks of drowning i.e bathtub related

deaths. Drowning deaths, for those over the age of 60, were primarily due to heaven fallen in the tub.

Horne accidents are a malignant problem that is affecting the well-being and health of aged people. Various forms of home accidents exists but the aged run greater risk from falls, which is increased due to various aged related physiological, psychological and environmental factors that predispose them to falls and ultimately home accidents. The incidence of accidents hat aged people experience could leave with them a fear of physical activity thus affecting their physical and social well-being and in the long run, their health.

i. to examine the commonly occurring accident types being experienced by older people in Nigeria
ii. to ascertain the predominant accident causes and the most commonly occurring types experienced by the aged in Nigeria, and
iii. examine the effect of home accidents on their physical and social well-being and how it affects their health in the long run.

This study was planned with the research questions

i. What types of accidents are most commonly occurring among the elders?
ii. What are the causes that could predispose elders to incidence of home accidents?
iii. What are the effects of home accidents on the physical and social well-being of the aged?

In order to answer the following questions, the following hypotheses have been formulated to guide the study:

Ho1: There is no significant relationship between falls physical well-being of the aged

Ho2 There is no significant relationship between home accidents and physical well-being of the aged

Ho3 There is no significant relationship between home accident and the social-well- being of the aged.

Methodology

The descriptive research design of the *ex post facto* was adopted for this study. The target population for the study is all the elderly range between 65years old and above. A multi-stage sampling technique was used in the study. In doing this, Ogun state was stratified along the axis of the existing five local government areas. From each of the local government areas, proportionate sampling technique were used to select one hundred respondents from each local government area thus five hundred respondents were selected for the study. The main instrument used for the data collection was a structured closed-ended questionnaire carefully designed for the participating aged people.

Prior to its being administered, the questions were scrutinized by some experts in the field of gerontology. Community development field, social work, rural and extension service department. Based on their comments, some items were rewarded, while some were modified to ensure that there was no ambiguity. In order to ascertain the reliability of this instrument, 40 questionnaires were administered to respondents who fulfill the parameters for participation in this study; who are different from the main number of participants. They were interviewed and administered the questionnaire, after which necessary corrections concerning the reliability of the questionnaire was calculated to be Cronbach alpha =0.75 necessary modifications, was then made.

The data collected were collated and analyzed using simple percentage distribution, frequency counts and chi-square statistics.

Results and Discussion of Findings

Table 1: Distribution based on the causes of home accidents for the elderly.

House Activities	Frequency	Percentage
Moving around the House	165	33.0
Walking	240	48.0
Dressing up	95	19.0
Total	500	100.0

The table above revealed that 48% of the respondents experienced home accidents when walking around the house, 33% while moving

around and 19% while dressing. This reveals that majority of accidents that occurred occur while some form of movement of the whole body from one place to another within the confines of their homes. This finding is corroborated by Diem (2006), which stated that accident occurred during motion, probably caused by problems with equilibrium balance.

Table 2: Distribution based of apartment in the home where accident is most experienced

Apartment in the home	Frequency	Percentage
Living room	150	30.0
Kitchen	210	42.0
Stairs	70	14.0
Bathroom/toilet	70	14.0
Total	500	100.0

The above table shows that 42% of the respondents experienced accident mostly in the kitchen. It shows that for the elderly population, the kitchen is a potentially dangerous place for the elderly people. This is followed by stair and bathroom at 14% respectively. The room and living room also tie 30%. The result is in agreement with the findings of Pitdis (2005) that the place where accident occur most is in the kitchen.

Table 3: Distribution based on intrinsic cause of accidents

Intrinsic	Frequency	Percentage
Fatigue	115	23.0
Eyesight	80	16.0
Balance problems	305	61.0
Total	500	100.0

The highest cause of home accidents according to the respondents turned out to be balance problems at 61%. Fatigue 23% and eyesight problems tied at 16% respectively. The implication of this finding is that older people have problems with gait, syncope, movement, declining body strength; and that all these problems are a natural result of ageing which ultimately results in domestic accidents. The findings is supported by Kalula (2004) who said that there may be underlying medical conditions that will result in accidents in the elderly.

Table 4: Distribution based on extrinsic cause of accidents

Extrinsic	Frequency	Percentage
Obstructing furniture	90	18.0
Loose or slippery floor	280	56.0
Inadequate step design	130	26.0
Total	500	100.0

The highest number of respondents who alleged that loose or slippery floor contributed to their experiencing home accident is 56%. Obstructing furniture and inadequately stairway design were also named as contributing factors, both tying at 26% and 18% respectively. The result is also agreed by Makinwa (2005) that accident results from interaction of intrinsic and extrinsic factors.

Research Hypothesis 1: Fall is not the most commonly occurring home accidents among the aged.

Table 5: Distribution based on accident most experienced

	Frequency	**Percentage**
Falls	318	166.67
Burns	85	166.67
Cuts	97	166.67
Total	500	

From the values above, it is calculated that X^2cal= 25.188 while X^2 tab = 5.99 at 0.05 level of significance. Since X^2cal is greater than X^2 tab, null hypothesis can be rejected that falls are not the most commonly occurring home accident among the elderly. Hence, alternative hypothesis can be accepted that falls are the most commonly occurring home accident among the aged.

Research Hypothesis 2: There is no significant relationship between home accidents and physical well-being of the aged.

Table 6: Distribution based on the effects of accidents on physical well-being

	Observed N	Expected N
Hospitalization	220	125.0
Bruises	125	125.0
Fractures	85	125.0
Dislocation	70	125.0
Total	500	

As shown above, X^2cal = 31.830 while X^2 tab = 5.99 at 0.05 level of significant. Since X^2cal is greater than X^2 tab, we can reject the null hypothesis that there is no significant relationship between home accidents and the physical well-being of the aged; and accept the alternative hypothesis that there is significant relationship between home accident and the physical well-being of the aged.

Research Hypothesis 3: There is no significant relationship between home and accident the social well-being of the aged.

Table 7: Distribution based on effects of home accidents on social well-being of the aged

Effects of home	**Observed N**	**Expected N**
Fear	95	100
Depression	135	100
Loneliness	160	100
Restriction of activity	70	100
Financial hardship	40	100
Total	500	

It can be calculated from the values that X^2cal = 236.358 while X^2 tab= 7.81 at 0.05 level of significance. Therefore since X^2cal is greater than X^2 tab, the null hypothesis can be rejected that there is no significant relationship between home accidents and social well-being of the aged and accept the alternative hypothesis that there is significant relationship between home accidents and social well-being of the aged.

Discussion

From the results of the first research hypothesis above, it can be seen that falls are the most commonly occurring home accident that was discovered from the study among the aged population sampled. This finding is in line with Kalula, 2004) who agreed that the incidence of falls increase exponentially with age. This finding is also indicated by Doudu (1998) he emphasized that falls result in serious injury, including sprains, fractures or deaths and so on.

The result of the findings of the study indicates that home accidents have severe effect on the physical and social well-being of the aged. Didem et al (2006) corroborated this in their definition of health as the state of complete physical, social and mental well-being and not just the absence of disease. From this definition, it is discovered that physical well-being sums up to the complete health status of the individual.

From this study, it has been shown that home accident has resulted, in the few cases sampled, in injuries, hospitalization, bruises, fractures, etc, in some cases, there were examples of fractures, poor eyesight, and balance problems. All these factors come together to affect the aged individual and hence resulting in home source of concern, but in the social sense as well.

The incidence of stairway accidents and bathroom accidents account for 6.6% of the' respondents who have experienced home accidents in this study. This is supported by the findings of Weber (1985) that fatal falls on stairs and steps involved aged persons aged 65years and over. Paul (1985) also reported that persons over 65years account for approximately 85% of deaths resulting from stairs accident.

The bathroom is a greater danger especially when entering/exiting is concerned. The fixtures and hardness of the tub, slipperiness of the floor are hazards that exist in the bathroom. Or

findings are supported by that of the National Safety Council Report in 1990 that all injury episodes in the bathroom involve persons aged over 65.

In this study, the most common activity the elderly respondents were involved in when accident took place are ambulatory. Movement in one form or another accounted for 83.3% of activity that resulted in accident. This is indicated with the findings of Makinwa (2005) that the aged accidents occurred during motion. This can be attributed to natural causes such as balance problems, problems with the nervous system.

The study examined “Home Accidents Effects on the Physical and Social Well-Being Of The Aged” which was successfully carried out in Ogun state, Nigeria. The study established that home accidents have severe effects on the physical and social well-being of the aged. The study also revealed that the structural design of the residence of the aged causes major home accidents often.

Recommendations

It is therefore recommended that,

- Permanent, non-skid tub floor surfaces into the design of bathtub be incorporated.
- Extend same non-skid floor outside the tub.
- Install widespread distribution of grab bars in the form of handrails.
- Provide "invisible support" that offers assistance when needed.
- Strengthen soap holders or towel rods so that they can act as invisible supports.
- A greater awareness should be made by the government, stakeholders, non-government organizations and concerns persons about the danger of home accidents and its effect on the well-being of the aged globally.
- Social work education should stretch its arms out to embrace deontological training for its students so that social workers trained in this discipline will develop an awareness of the needs of rapidly growing aged population globally.
- Our culture should be promoted by the government and media on the role of the younger generation in ensuring adequate

care of our aged. This will definitely improve their social well-being and reduce the incidence of home accidents.

We conclude that the aged most time do experience home accidents, and that, the place with more occurrences of falls was the bathroom, followed by the kitchen; the prevailing setting was the bathroom, followed by the garden and the staircase. Still, most individuals suffered some kind of injury, and the most frequent ones are excoriations, followed by fractures, and the body region with more episodes was the ankle and knee. However, there was no significant difference with regard to the flooring condition where the fall occurred, either dry.

References

Abdah, T. & Mabo, A. (2004). "No one gome for the aged", Sunday Punch, PP 12.

Adegbeye, A. J. (1993). Farmers support team. Lagos, Ceiba Geigy Nig. Ltd. 10-14

Davies, J. C., Manning, D.P.,Kemp, G. J., & Frostick, S. P (2001). The rising number of underfoot accident after menopause causes both fractures and non-fracture injuries. *QJM International Journa of Medicine ,* 94, 699-707.

Didem, E.; Filiz, E. E. & Erdal, B. (2006). Home accidents in the elderly in Turkey, *Tohoku Exp. Med.* 209, (4) 291-301

Doudu, Y., (1998). The need for geriatric care services in Ghana. *Southern African Journal of Gerontology*, 7(20):33-34

Ferreira, M. (1999). Building and advancing African gerontology. *Southern African Journal of Gerontology*, 8(1): 1-3.

Kaluka, S.D. (2004). A WHO global report on falls among older persons prevention of fall in older persons*: African Case Study, WHO Global Report on Falls Prevention in Older Age* 19 (3): 34-67.

Mullick, A. (2005). Center for inclusive design and environmental access: Bathing for older people with disabilities. State University of New York, Buffalo.

National Population Commission, Nigeria (1998). 1991 population census of the Federal Republic of Nigeria: Analytical Report at the National Level, Lagos, Nigeria, 58-87.

National Safety Council (1992). Accident 0879123575,

acts. ISBN 780879123574

Pauls, J.L. (1985). Review of stair-safety research with an emphasis on Canadian Studies. *Economics*, 28 (7):999-1010.

Pitidis, A.; Guistini, M. &Taggi, F. (2005). Data collection in domestic accidents at national level in Italy National Institue of Health, Rome. 82-93.

United Nations (1994). Ageing and the family, Department of Economic and Social Information and Policy Analysis, New York. 51-63

United Nations Population Division (2000). World population prospects, The 2000 revision. Highlights New York: UNPD, 105-128.

Weber, J., Kehoe, T., Bakoss, M., Kiley, M., & Dzigiel, J. M. (1996). Safety at home: A practical home injury control programme for independent senior caring, *Journal of occupational Therapy,*15(6), 62-66

Wilson, A. (1998). Principles to guide geriatric care services in Africa: A new era? *Southern African Journal of Gerontology,* 7 (2): 30-32.