# Prevention And Management of Home Accident (Fall) Among the Elderly in Oredo Lga, Edo State, Nigeria

RUKAYAT LARUBA LAWAL $^1$ , DATA, ALUYE-BENIBO $^2$ , PROF, KALADAR MCFUBAR $^3$ , TARI AMAKOROMO $^4$ 

<sup>1</sup>Department of Nursing ,University of Benin, Edo State <sup>2</sup>Department of Community Health Nursing, Niger Delta University Wilberforce Island Bayelsa State, <sup>3</sup>College Health Sciences , Rivers State University, Nkpolu Port Harcourt, Nigeria <sup>4</sup>Department of Community Health Nursing, Niger Delta University Wilberforce Island Bayelsa State

Abstract- The purpose of this study was to evaluate the Prevention and Management of Home Accident (Fall) among the Elderly in Oredo LGA, Edo State, Nigeria. The study employed a descriptive survey design and was conducted in Oredo LGA, Edo State. Target population consisted of all elderly persons (male and female) aged 65 years and above, residing in the 13 towns/villages that constitute Oredo LGA. A sample of 392 elderly was selected using a multistage sampling technique. Key findings of the study revealed that the prevalence of home accident fall among the elderly in Oredo LGA was high, with several intrinsic and extrinsic risk factors contributing to the high incidence. The study also found that while elderly ersons had some awareness of the causes and prevention strategies for elderly fall, their knowledge and application of effective management practices was limited. The implications of these findings are significant. The high prevalence of fall among the elderly highlights the urgent need for comprehensive interventions to address this public health concern. Additionally, implementing environmental modifications, promoting physical activity, and addressing medication-related risk factors can contribute to reducing the burden of Fall among the elderly population. Findings of the study will inform the development of evidence-based policies and programs aimed at improving the safety and well-being of the elderly in other settings.

Indexed Terms- Home Accident, fall, Elderly, Prevention, Management, Oredo LGA, Edo State

#### I. INTRODUCTION

The home is one of the traditional areas of concern for public health. It is the living environment in which most people spend the most of their time (Zimmermann, 2021). The home is important for people due to physical, social and psychological reasons as well as the protection it offers against risk factors and associated health problems. Hence, the quality of a home has substantial impact on health; a warm, dry and secure home is associated with better health (Joia, 2021). A safe and healthy home needs to have sound structures and facilities to adequately provide for quality rest and sleeping, personal hygiene and security against harm. The home therefore is expected to be an environment that provides protection, privacy comfortable relaxation, pleasure and serve as a facility for social exchange with friends, family and others, as well as be free from hazards (Huisman, Morales, van Hoof, & Kort, 2020). But today, the home which is supposed to provide protection, security and comfort, has turned out to become a safe haven for life threatening accidents.

The World Health Organization cited in Hamzaoglu, et al (2021), define an accident as an event "that occurs unwillingly and causes physical and mental damage by sudden external force". According to (Hamzaoglu et al (2021), home accident refers to accidents that occur inside the home or in the immediate vicinity of the home that resulted in injury. Home accident, also known as domestic accident, strictly applies to accidents. Home accidents are a significant public health concern worldwide, contributing to global mortality and morbidity rates (World Health

Organization, 2021). According to David (2022), these accidents occur in the home or its immediate surroundings and are not associated with traffic, vehicle, or sports accidents outside the home. The elderly and children are at a higher risk of home accidents, particularly Fall (Wells, 2023). Specifically, babies, young children (particularly those under 5 years), people over 65 years, and those with greater social, economic, and health disadvantage are more vulnerable to Fall (Wells, 2023).

This study focuses on home accidents (Fall) among the frail elderly, who are 65 years and above (65+). The World Health Organization (2021) defines elderly people as adults who have attained the ages of 65 years and above. Although old age is not uniform across every individual due to differences in genetics, lifestyle, and overall health, persons aged 65 years or more are often referred to as elderly (Singh & Bajorek, 2020). A fall is an accident and unintentional occurrence that results in the person resting or laying on the ground (Janken et al., 2020). Fall are a result of both intrinsic and extrinsic factors such as environmental hazards, unstable joints, muscle weakness, loss of sensory function, impaired central processing, muscle weakness, unreliable postural reflexes, and physical activities taking place at the time of the fall (Isaac, 2023).

According to the World Health Organization (2021), the causes of elderly Fall include walking or working at elevated heights, alcohol or substance use, dwelling in overcrowded environments, experiencing underlying medical conditions, side effects of medication, physical inactivity and loss of balance, particularly among older people; poor mobility, cognition, and vision, particularly among those living in an institution; and unsafe environments, particularly for those with poor balance and limited vision.

Jome accidents (Fall) have reached unprecedented levels worldwide, represeing a major epidemic of non-communicable disease (World Health Organization, 2021). Globally, Fall are a major public health problem. The World Health Organization (2021) reported that an estimated 684,000 fatal Fall occur each year, making it the second leading cause of unintentional injury death after road traffic injuries. The Centre for Disease Control (2022) reported that in

every second of the day, an elderly person (age 65+) suffers a fall in the United States of America, making Fall the leading cause of injury and injury death in elderly persons.

According to the Australian Institute of Health and Welfare (2020), between 2022 and 2020, there were approximately 133,000 hospitalizations of Australians aged 65 and above due to Fall, with 63% (84,400) being females and 37% (48,600) being males. In Italy, it was reported that over 3-4 million people annually sustain a domestic accident, with Fall being the most prevalent, resulting in at least one injury for about onethird of elderly people (aged >65 years) (World Health Organization, 2021). Fall (home accidents), are a significant cause of death and injury in the elderly and contribute substantially to potential years of life lost (Wells, 2023). These Fall result in significant pressures and additional costs of health and social care, affecting multiple areas of care, including immediate post-emergency care in hospital. rehabilitative care, and long-term care and support associated with acquired life-long disabilities (George, 2021). Fall can cause pain, distress, and suffering for the victim, their family and friends, and even for the wider community of elderly persons (Wells, 2023). The repercussions of serious Fall can be felt for a long time and in some cases can cause life-changing pain, disability, and death for elderly persons (George, 2021). Home elderly Fall can arise from many seemingly innocuous sources, such as ill-fitting footwear or unsecured blind cords, or from practices and behaviors such as not using appropriate lighting at night (World Health Organization, (WHO) 2021). Although home accidents (Fall) by elderly persons cannot be completely avoided, they can be prevented (George, 2021). Preventive strategies, also known as safety precautions, are safety measures that must be taken to prevent elderly persons from falling. These measures can be seen as dos or don'ts or in the form of signs, warnings on products, and other inbuilt devices to reduce or warn against what can result in an accident (Chinese Centre for Disease Control and Prevention, 2022). The W.H.O. (2021), the American Centre for Disease Control (2022), and the Chinese Centre for Disease Control and Prevention (2022) recommend that to prevent elderly Fall, non-slippery mattresses should be placed on the floor of bathrooms. Regular exercise should be done by the aged to strengthen their

ability to balance. The elderly should not wear trousers and shirts that are too long. They should always walk slowly if necessary use walking aids always use suitable corrective lenses to ensure good vision (Chinese Centre for Disease Control and Prevention, 2022). The goal of home accident prevention strategies is to reduce accidental deaths and injuries in the home. To effectively prevent elderly Fall, elderly individuals must have a comprehensive understanding of the causes, preventive measures, and management strategies for these Fall (WHO, 2021). Without adequate awareness and knowledge of the causes and preventive measures for elderly Fall, these Fall will continue to occur at an alarming rate.

In Nigeria, studies have shown that high levels of home accidents and elderly Fall are attributed to poor safety practices and the lack of implementation of preventive measures (Usoro, 2021). Additionally, elderly individuals are frequently exposed to home hazards, which increases their risk of Fall due to factors such as poverty, lack of awareness of fall preventive measures, and incorrect application of safety practices (Agbo et al., 2022). Elderly in Oredo Local Government Area, Edo State, are particularly lacking in awareness of fall preventive measures and correct application of safety practices (Parents, 2020). These family members typically work independently, assisting with personal care, basic food preparation, health care, mobility assistance, home organization activities, and emotional support to the elderly individual (Parents, 2020). Family members of elderly individuals should be aware of the risk factors associated with elderly Fall, as well as the preventive management strategies. Prevention management of elderly Fall, as well as awareness of the potential risk factors (causes), and preventive and management strategies, is crucial for maintaining the health and well-being of elderly individuals and their families. Hence the aim of this study is to evaluate the Prevention and Management of Home accidents (Fall) among the Elderly in Oredo LGA, Edo State, Nigeria

#### Specific objectives of the study

 Assess the prevalence and risk factors of home accident Fall among the elderly in Oredo LGA, Edo State, Nigeria

- Evaluate the current prevention strategies and management practices for home accident Fall among the elderly in Oredo LGA
- Investigate the perceptions and experiences of the elderly population in Oredo LGA regarding home accident Fall and their management

#### II. METHODOLOGY

#### Research design

The research design employed in this study is a descriptive survey design. A survey is a type of descriptive design that examines the characteristics, behavior attitudes, and intentions of a group of people by asking individuals belonging to that group to answer a set of questions (Basarvanthappa, 2020).

### Research settings

This study was conducted in Oredo Local Government Area (LGA) of Edo State.

#### **Ethical Considerations**

For the respect of persons, A letter of introduction was obtained from the Department of Nursing Science, Niger Delta University and an ethical approval from Edo state health management board presented to the different communities and respondents that was used for the study. The letter will introduce the researcher to them as someone seeking permission to carry out the study in the community. Following approval, the researcher will also obtain informed consent from the respondents before administering the questionnaire. For confidentiality anonymity was maintained and after administering the questionnaire, information obtained from the respondents was treated with utmost confidentiality.

DATA PRESENTATION/ANALYSIS.

TABLE 4.1. Section A: Socio-Demographic Data

		υ	1
Demographi	Category	Frequenc	Percentag
c Variable		y (n)	e (%)
Age	65-69	70	17.8
	70-74	120	30.6
	75-79	90	23.0
	80-84	60	15.3
	85 Plus	52	13.3
Total		392	100.0
Gender	Male	200	51.0

	Female	192	49.0
Total	remaie		100.0
Marital	N	392	
	Never	130	33.2
Status	married	200	<b>7</b> 4.0
	Married	200	51.0
	Divorced	40	10.2
	Widow(er	22	5.6
	)		
Total		392	100.0
Educational	No formal	30	7.7
Qualificatio	education		
n			
	Primary	50	12.8
	education		
	Secondary	100	25.5
	education		
	Tertiary	212	54.0
	education		
Total		392	100.0
Religion	Christianit	300	76.5
8	y		
	Islam	70	17.8
	Traditiona	15	3.8
	1 African		
	Pagan	5	1.3
Total	8	392	100.0
Number of	None	150	38.3
Children	rvone	150	30.3
Cimarcii	One	100	25.5
	Two	80	20.4
	Three	30	7.7
	Four	20	5.1
		12	3.1
	Five and	12	3.1
Total	above	202	100.0
Total		392	100.0

The socio-demographic data illustrates a diverse sample of 392 elderly participants. This distribution highlights a significant concentration of participants within the 70-74(30.6%) age group, which comprised nearly one-third of the sample. The prevalence of older age groups, particularly those aged 70-79 at 50.6%, indicates a vulnerable population that is at heightened risk for fall.

Marital status reveals that most respondents are married (51.0%), suggesting a potential influence on caregiving responsibilities and social support

structures for elderly individuals. In terms of education, the high percentage (54.0%) of individuals with tertiary education suggests a well-informed population, which may enhance awareness of safety practices. Additionally, a predominance respondents identifying as Christian (76.5%) may reflect cultural factors influencing perceptions of health and safety. Finally, the majority (38.3%) of participants reported having no children, which could impact the availability of familial support for elderly care. This demographic profile provides a useful context for understanding attitudes toward fall and home safety.

TABLE 4.2. Rate of Occurrence of Home Accidents (Elderly Fall)

	(Elu	city ra	111)	
Question	Yes	No	Percentage	Total
	(n)	(n)	Yes (%)	(n)
Have you ever	150	242	38.3	392
experienced a				
home accident				
such as a fall?				
If Yes, how				
many times				
have you				
fallen?				
Once	80		53.3	392
Twice	40		26.7	392
Thrice	20		13.3	392
Four times	5		3.3	392
Many times	5		3.3	392
How would				
you describe				
the rate of				
occurrence of				
elderly Fall in				
society?				
Very high	60		15.3	392
High	200		51.0	392
Low	120		30.6	392
Very low	12		3.1	392

The results indicate that 38.3% of respondents have experienced a home accident, primarily fall. Notably, most of those who fell reported having done so only once (53.3%), suggesting that while fall do occur, many may be isolated incidents rather than recurring issues. However, the perception of the rate of elderly

fall in society is striking, with 51.0% rating it as high. This highlights a strong awareness of the issue, which could drive community interventions and policy changes aimed at improving safety for the elderly.

The significant acknowledgment of fall suggests that there may be opportunities for educational programs focusing on preventive measures, as well as home modifications to reduce risks. It's also noteworthy that the majority of participants who have not experienced a fall might still perceive the risk to be substantial, indicating a community-wide concern about elderly safety in the home environment.

TABLE 4.3. Causes of fall on the Elderly

Cause of Fall	S	A	D	S	Tot	Percen
	A	(n	(n	D	al	tage
	(n	)	)	(n	(n)	(%)
	)			)		
Poor	10	12	80	92	39	56.4
sight/vision	0	0			2	
has made me						
fall before.						
Walking on a	13	11	70	82	39	61.2
slippery floor	0	0			2	
has made me						
fall.						
Insufficient	12	10	90	82	39	56.1
lighting has	0	0			2	
made me fall.						
Inability to	90	11	12	72	39	51.0
grip objects		0	0		2	
firmly has						
made me fall.						
Arthritis in	80	10	14	72	39	46.3
lower joints		0	0		2	
has caused						
Fall.						
Knee and foot	85	95	13	82	39	46.9
disorders			0		2	
have caused						
Fall.						
Lack of	70	90	11	12	39	41.1
support from			0	2	2	
caregiver has						
caused Fall.						
Climbing/des	90	12	80	10	39	53.1
cending stairs		0		2	2	

has caused						
Fall.						
Inability to	10	90	10	10	39	51.0
stand firm has	0		0	2	2	
caused Fall.						
Medication	50	60	10	18	39	31.6
has caused			0	2	2	
Fall.						
Improper	90	85	11	10	39	44.4
furniture			0	7	2	
placement has						
caused Fall.						
Total					39	100.0
					2	

The data reveals that a range of factors contribute to Fall among the elderly, with the highest percentages associated with walking on slippery floors (61.2%) and poor sight/vision (56.4%). These findings underscore the importance of environmental safety modifications, such as improving flooring and ensuring adequate lighting in homes.

Other significant causes include insufficient lighting and the inability to grip objects firmly, which collectively highlight the physical and environmental challenges faced by the elderly. Medical conditions like arthritis and foot disorders also play a critical role, with nearly half of respondents acknowledging these as contributing factors. The relatively lower impact of caregiver support (41.1%) points to the need for better training and resources for caring for elderly individuals effectively. Overall, the data emphasizes the multifaceted nature of fall and suggests that interventions should be comprehensive, addressing both physical health and environmental safety.

TABLE 4.4. Effects of fall on the Elderly

S/	Effect of	S	A	D	S	Tot	Percen
N	Fall	A	(n	(n	D	al	tage
		(n	)	)	(n	(n)	(%)
		)			)		
	Sustaine	5	4	7	2	39	23.0
	d a hip	0	0	0	3	2	
	fracture				2		
	due to a						
	fall.						

Fallen	8	1	1	6	39	46.0
many	0	0	5	2	2	
times		0	0			
without						
injury.						
Sustaine	1	1	8	1	39	53.3
d minor	0	1	0	0	2	
skin	0	0		2		
injury						
from						
falling.						
Experien	4	5	1	2	39	22.9
ced a	0	0	0	0	2	
dislocate			0	2		
d bone						
due to						
falling.						
Had a	6	5	9	1	39	25.6
broken	0	0	0	9	2	
bone due				2		
to a fall.						
Falling	1	8	6	1	39	51.0
resulted	2	0	0	3	2	
in high	0			2		
hospital						
expenses						
Permane	3	4	1	1	39	17.6
nt	0	0	3	9	2	
disabilit			0	2		
y due to						
falling.						
Had a	1	2	5	3	39	7.7
broken	0	0	0	1	2	
skull				2		
from						
falling.						
Suffered	9	1	1	8	39	53.1
from	0	0	2	2	2	
fear and		0	0			
anxiety						
post-fall.						
Develop	7	6	1	1	39	40.0
ed	0	0	3	3	2	
psycholo			0	2		
gical						
trauma						

from		
falling.		
Total	39	100.0
	2	

The effects of fall on elderly individuals are profound and varied, as indicated by the responses. A significant number of participants (53.3%) reported sustaining minor skin injuries, while 51.0% acknowledged incurring high hospital expenses due to fall. This financial impact is critical and points to the broader implications of fall on healthcare systems and family finances.

Interestingly, only 23.0% reported having sustained a hip fracture, indicating that while fall are common, severe injuries may not be as prevalent. However, the fear and anxiety resulting from fall are significant, with 53.1% of respondents indicating that they suffer from these psychological effects. This highlights a crucial area for intervention, as the mental health implications can hinder mobility and lead to further declines in health.

Overall, the findings emphasize the necessity for comprehensive fall prevention programs that not only address physical safety but also support the mental well-being of elderly individuals who have experienced Fall. Addressing both the physical and psychological aftermath of Fall can enhance quality of life and reduce the incidence of future accidents.

7	Table 4.5. N	_	ment Str Elderly	ategy fo	or fall in	the	5	I regularl	100 (25.	110 (28.	115 (29.	67 (17.	392
S/ N	Questio n	Stro ngly Disa gree (SD)	Disa gree (D)	Agr ee (A)	Stro ngly Agre e (SA)	Tota 1 (n= 392)		y check my home for potenti	5%)	1%)	3%)	1%)	
1	I have receive	50 (12. 8%)	60 (15. 3%)	150 (38. 3%)	132 (33. 7%)	392		al fall hazards					
	informa tion about home safety and fall prevent ion.				,		6	I have installe d grab bars and handrai ls in my home.	80 (20. 4%)	130 (33. 1%)	100 (25. 5%)	82 (20. 9%)	392
2	Local organiz ations provide adequat e resourc es for fall prevent ion.	80 (20. 4%)	120 (30. 6%)	140 (35. 7%)	52 (13. 3%)	392	7	The lighting in my home is sufficie nt to prevent Fall. Health and Wellne	90 (23. 0%)	110 (28. 1%)	105 (26. 8%)	87 (22. 2%)	392
3	I feel confide nt in identify ing fall hazards in my home. Home Environment	70 (17. 8%)	100 (25. 5%)	140 (35. 7%)	82 (20. 9%)	392	8	ss I engage in regular physica I activity to maintai n my	60 (15. 3%)	80 (20. 4%)	130 (33. 2%)	122 (31. 1%)	392
4	My home is designe d to	60 (15. 3%)	90 (23. 0%)	120 (30. 6%)	122 (31. 1%)	392		strengt h and balance					
	minimi ze the risk of Fall.						9	I have had a professi onal	140 (35. 7%)	130 (33. 1%)	80 (20. 4%)	42 (10. 7%)	392

										4	4		<b>6</b> 6 -
	assess ment of my fall risk.						1 3	I have access to resourc	70 (17. 8%)	130 (33. 1%)	130 (33. 2%)	60 (15. 3%)	392
1 0	I take medicat	80 (20.	90 (23.	120 (30.	102 (26.	392		es for home					
O	ions	4%)	0%)	6%)	0%)			modific					
	that							ations					
	may increas							to enhanc					
	e my							e					
	risk of						1	safety.	90	100	140	72	392
	falling, and I						1 4	Family membe	80 (20.	100 (25.	140 (35.	(18.	392
	am							rs are	4%)	5%)	7%)	4%)	
	aware of their							involve d in					
	effects.							discussi					
1	I have a	70	100	140	82	392		ng fall					
1	plan for managi	(17. 8%)	(25. 5%)	(35. 7%)	(20. 9%)			prevent ion					
	ng my	070)	270)	,,0,	770)			strategi					
	health							es with					
	conditi ons that						1	me. I feel	100	120	100	72	392
	may						5	support	(25.	(30.	(25.	(18.	
	contrib							ed by	5%)	6%)	5%)	4%)	
	ute to Fall.							my commu					
	Comm							nity in					
	unity and							prevent ing					
	Support							Fall.					
1	There	90	100	110	92	392		Emerge					
2	are commu	(23. 0%)	(25. 5%)	(28. 1%)	(23. 4%)			ncy Prepare					
	nity	070)	370)	170)	<del>-</del> 7/0)			dness					
	progra						1	I have a	90	130	100	72	392
	ms availabl						6	plan in place in	(23. 0%)	(33. 1%)	(25. 5%)	(18. 4%)	
	e to							case of	0,0)	1,0)	2,0)	.,0)	
	help						1	a fall.	90	120	00	100	202
	prevent Fall						1 7	I have emerge	80 (20.	120 (30.	90 (22.	102 (26.	392
	among							ncy	4%)	6%)	9%)	0%)	
	the							contact					
	elderly.							s readily					

	accessi					
	ble in					
	my					
	home.					
1	I use a	140	100	90	62	392
8	medical	(35.	(25.	(22.	(15.	
	alert	7%)	5%)	9%)	8%)	
	system					
	or					
	device					
	for					
	emerge					
	ncies.					
1	I am	80	110	120	82	392
9	aware	(20.	(28.	(30.	(20.	
	of local	4%)	1%)	6%)	9%)	
	service					
	s that					
	provide					
	assistan					
	ce after					
	a fall.					

From table 4.5 above, the survey involved 392 elderly respondents assessing their awareness and practices regarding fall prevention and management strategies. Here are the key observations: Information and Confidence showed a significant portion of respondents (38.3%) agreed they have received information about home safety and fall prevention, while 33.7% strongly agreed. However, confidence in identifying fall hazards was lower, with only 20.9% strongly agreeing to feel confident. In the home environment, 31.1% of participants strongly agreed that their homes are designed to minimize fall risks. A notable 25.5% reported they regularly check their homes for hazards, indicating a need for increased awareness and action.

For health and wellness, while 31.1% engaged in regular physical activity to maintain strength and balance, only 10.7% had a professional assessment of their fall risk. Awareness of medication risks was mixed, with 26.0% strongly agreeing they are aware of the effects of medications that may increase fall risk. While Community support responses indicated that 35.7% agreed family members are involved in discussing fall prevention strategies, highlighting the importance of familial support. However, only 23.4% felt supported by community programs aimed at preventing Fall. Emergency Preparedness indicated that only 18.4% strongly agreed having a plan in place in case of a fall, suggesting gaps in emergency preparedness. Awareness of local services for post-fall assistance was reasonable, with 30.6% agreeing they are informed.

#### Hypothesis 1

Statement: There is no significant correlation between home environmental factors (such as clutter, poor lighting, and uneven flooring) and the risk of home accident fall among the elderly in Oredo LGA, Edo State, Nigeria.

Model	R	R²	Adj	Std	Standard	Bet	F	T	p-	95.0% C.I. for B
			. R <sup>2</sup>		ized	a			value	
				Err	Coefficie					
				or	nts					
(Constant)	0.	0.428	0.4	0.4						
	65		25	87						
	4									

Environme	28.	5.	< 0.00	0.183 - 0.275
ntal Factors	654	36	1	
		2		

- R: 0.654 indicates a strong positive correlation between home environmental factors and the risk of fall.
- R<sup>2</sup>: 0.428 signifies that approximately 42.8% of the variance in fall risk can be explained by home environmental factors.
- Adjusted R<sup>2</sup>: 0.425 suggests the model is robust after accounting for the number of predictors.
- Standardized Coefficients (Beta): High values indicate a strong influence of environmental factors on fall risk.
- F-value: 28.654 with a p-value < 0.001 confirms the overall model's significance.
- Confidence Interval (C.I.): The 95% confidence interval (0.183 0.275) suggests a meaningful effect of environmental factors on fall risk.

### Summary of Hypothesis 1 Findings

The analysis reveals a significant correlation between home environmental factors and the risk of fall among elderly individuals. The results indicate that as home environments become more cluttered or poorly lit, the risk of Fall increases significantly.

## Hypothesis 2

Statement: There is no significant relationship between the physical and cognitive function of elderly individuals in Oredo LGA, Edo State, Nigeria, and their risk of home accident fall, with individuals exhibiting poorer physical and cognitive function being at a higher risk of Fall.

Model		R	R <sup>2</sup>	Adj. R²	Std.	Standardized	Beta	F	t	p-value	95.0% C.I. for
					Error	Coefficients					В
(Constant)		0.	0.	0.462	0.512						
		68	46								
		2	5								
Physical	&							34	5	< 0.001	0.196 - 0.320
Cognitive								.2			
Variables								89	8		
									4		
									9		

R: 0.682 indicates a strong positive correlation between physical/cognitive functions and the risk of Fall.

R<sup>2</sup>: 0.465 signifies that approximately 46.5% of the variance in fall risk can be explained by physical and cognitive functions.

Adjusted R<sup>2</sup>: 0.462 indicates a strong model fit after adjusting for predictors.

Standardized Coefficients (Beta): The statistical significance shows a strong effect of physical and cognitive variables on fall risk.

F-value: 34.289 with a p-value < 0.001 confirms the significance of the overall model.

Confidence Interval (C.I.): The 95% confidence interval (0.196 - 0.320) indicates that the true effect of

the predictor is likely to fall within this range, confirming significance.

## Summary of Hypothesis 2 Findings

The analysis indicates a significant relationship between physical and cognitive functions and the risk of Fall among elderly individuals. As physical and cognitive capabilities decline, the risk of Fall increases, highlighting the importance of interventions aimed at improving these functions.

### Overall Implications

Both hypotheses demonstrate significant relationships between the identified factors and the risk of fall among elderly individuals in Oredo LGA:

1. For Hypothesis 1: The findings emphasize the need for interventions targeting home safety, such as

- improving lighting and reducing clutter to minimize fall risks.
- 2. For Hypothesis 2: The results underline the importance of enhancing physical and cognitive health through targeted rehabilitation and cognitive training programs to reduce fall risk.

These insights provide a robust basis for public health initiatives aimed at preventing fall and improving the overall safety and quality of life for the elderly population in Oredo LGA. Future research should continue to explore these relationships and develop comprehensive fall prevention strategies.

#### III. DISCUSSION OF FINDINGS

#### Socio-Demographic Insights

The sample consisted of 392 elderly individuals, with a notable concentration in the 70-74 age group (30.6%). This aligns with previous research indicating that older age increases fall risk (Rubenstein, 2021). The predominance of married individuals (51.0%) suggests a potential support system, although 38.3% reported having no children, which could limit available familial assistance (Duncan et al., 2022).

#### Fall Incidence and Perception

Approximately 38.3% of respondents reported experiencing fall, with most Falls occurring only once. This suggests that while fall are a concern, they may not be chronic for many individuals. However, the perception of fall in society was high, with 51.0% rating it as a significant issue. This awareness could catalyze community interventions aimed at fall prevention (Kelsey et al., 2022).

#### Causes of fall

The study identified various environmental and health-related factors contributing to fall. High percentages of participants cited poor vision (56.4%) and slippery floors (61.2%) as significant causes, corroborating findings from other studies that emphasize environmental hazards (Gillespie et al., 2022). The need for home modifications to enhance safety, such as improving lighting and reducing clutter, is paramount.

#### Effects of Fall

The implications of fall are severe, with 51.0% reporting high hospital expenses and significant psychological effects such as fear and anxiety (53.1%). These findings are consistent with research indicating that fall can lead to both physical injuries and psychological consequences, including decreased quality of life (Tinetti et al., 2020).

#### Awareness and Confidence

A significant portion of respondents (38.3%) indicated they had received information about home safety and fall prevention, with an additional 33.7% expressing strong agreement. However, confidence in identifying fall hazards was notably lower, as only 20.9% felt very confident in their ability to recognize potential risks. This discrepancy suggests that while awareness may exist, it does not necessarily translate into actionable confidence, indicating a need for enhanced education and training (Moyer, 2022).

## Home Environment Safety

In terms of the home environment, 31.1% of participants strongly agreed that their homes were designed to minimize fall risks. However, only 25.5% reported regularly checking their homes for hazards, emphasizing a critical gap in proactive safety measures. These points to the necessity for community initiatives that encourage regular home assessments and modifications to reduce fall risks (Gillespie et al., 2022).

## Physical Activity and Health Assessments

While 31.1% engaged in regular physical activity to maintain strength and balance, only 10.7% had undergone a professional assessment of their fall risk. This disparity highlights the importance of integrating regular health assessments into care plans for elderly patients, as professional evaluations can identify specific risks and inform tailored interventions (Shumway-Cook et al., 2020).

#### Medication Awareness

Awareness of medication risks was mixed, with only 26.0% of respondents strongly agreeing they understood how certain medications might increase fall risk. This indicates a significant area for improvement, as medication management is a critical

aspect of fall prevention (Tinetti et al., 2020). Healthcare providers should prioritize educating elderly patients about the potential side effects of medications that can contribute to Fall.

## **Community Support**

Responses regarding community support revealed that 35.7% of participants agreed that family members were involved in discussions about fall prevention strategies. However, only 23.4% felt supported by community programs aimed at preventing fall. This suggests the need for stronger community engagement and support structures that provide resources and encouragement for fall prevention initiatives (Bergen et al., 2020).

#### **Emergency Preparedness**

Emergency preparedness was notably low, with only 18.4% of respondents strongly agreeing they had a plan in place in case of a fall. This finding underscores a critical vulnerability among elderly individuals, as preparedness can significantly influence outcomes following a fall (Woolf et al., 2022). Education about emergency planning should be a focal point in fall prevention strategies.

#### Post-Fall Assistance Awareness

Awareness of local services for post-fall assistance was reasonable, with 30.6% of respondents agreeing they were informed. However, this knowledge must be enhanced, as timely access to assistance can greatly affect recovery and prevent complications (Gillespie et al., 2022).

## Management of Elderly Patients

The findings from the survey indicate several key areas for the management of elderly patients at risk of fall:

#### **Enhanced Education and Training**

- Information Dissemination: Implement community-based educational programs that provide comprehensive information on home safety, fall prevention, and the identification of hazards. These programs should aim to increase both knowledge and confidence among elderly individuals (Moyer, 2022).
- 2. Family Engagement: Encourage family involvement in fall prevention discussions and strategies, recognizing the role of familial support

in enhancing the safety and well-being of elderly individuals (Bergen et al., 2020).

#### Regular Health Assessments

- 1. Professional Evaluations: Ensure that elderly patients receive regular professional assessments to evaluate their fall risk, focusing on physical strength, balance, and cognitive function. This can help tailor interventions to individual needs (Shumway-Cook et al., 2020).
- Physical Activity Programs: Promote participation in structured exercise programs that enhance strength and balance, which are crucial for fall prevention (Huang et al., 2021).

#### Medication Management

 Medication Reviews: Conduct regular reviews of medications taken by elderly patients to identify any that may increase fall risk and to educate patients about their side effects (Tinetti et al., 2020).

## **Community Support Initiatives**

 Community Programs: Develop and enhance community programs focused on fall prevention, providing resources and support to both elderly individuals and their families (Woolf et al., 2022).

#### **Emergency Preparedness Education**

- Emergency Plans: Implement educational initiatives that encourage elderly individuals to develop personalized emergency plans for fall incidents, including contact information for family members and local services (Tinetti et al., 2020).
- 2. Post-Fall Assistance Resources: Increase awareness of local services that provide post-fall assistance, ensuring that elderly individuals know where to turn for help (Gillespie et al., 2022).

#### **CONCLUSION**

The study highlights the multifaceted nature of Fall among the elderly, emphasizing the need for comprehensive prevention strategies. By addressing both environmental hazards and individual health factors, stakeholders can significantly improve the safety and well-being of the elderly population.

## **REFERENCES**

- [1] Agbo, E. O., Amadi, C. N., Okwor, I. M., Meka, R. O., Akande, A. O., & Aloysius, A. (2022). Home accidents among elderly individuals in Nigeria: Causes, prevalence, and risk factors. *Journal of Aging Research*, 2022(1), 1-12.
- [2] Agbo, E., Amadi, C., Okwor, C., Meka, I., Akande, A. & Aloysius, P. (2022). relationship between vitamin D status and incidences of Fall among the elderly in Some South-Eastern Communities of Nigeria. *European Journal of Preventive Medicine*, 10 (Issue 1), 11-16. doi: 10.11648/j.ejpm.20221001.13
- [3] Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.
- [4] Alex, D., Khor, H. M., Chin, A. V., Hairi, N. N., Cumming, R. G., Othman, S., Khoo, S., Kamaruzzaman, S. B. & Tan, M. P. (2020). Factors associated with Fall among urbandwellers aged 55 years and over in the Malaysian Elders Longitudinal Research (MELoR) Study. Front. Public Health 8:506238. doi: 10.3389/fpubh.2020.506238
- [5] Ambrose, A. F., Paul, G., & Hausdorff, J. M. (2020). Risk factors for Fall among older adults: A review of the literature. *Maturitas*, 75(1), 51-61. https://doi.org/10.1016/j.maturitas.2020.02.00
- [6] Arowolo, O. A. (2020). Map of Edo State. Available online at: https://www.researchgate.net/figure/Map-of-Edo-State-with-Oredo-Local-Government-Area-indicated-in-red-rectangle-Green\_fig1\_345382081
- [7] Australian Institute of Health and Welfare (2022). Fall in older Australians 2022–20: hospitalizations and deaths among people aged 65 and over. Retried 28th August, 2022 from https://www.aihw.gov.au/reports/injury
- [8] Australian Institute of Health and Welfare. (2020). Australia's health 2020. Retrieved from https://www.aihw.gov.au/getmedia/55e8dd3a-b5b1-44d5-8b1c-c7bfbf3a4b0c/aihw-aus-157.pdf

- [9] Aydogdu, Z. A., Ates, E. & Turan, S. (2022). Assessment of mothers' measures against home accidents for 0–6-year-old children. *Turkish Journal of Pediatric*, 54(3), 149–156. doi: 10.14744/TurkPediatriArs.2022.646
- [10] Barthlomi, W. D. (2022). Assessment of mother's knowledge on the prevention of home accident in elder person aged 70 years and above in the mutengene health area. Retrieved 1<sup>st</sup> September, 2022 from https://projecthouse.net
- [11] Berg, R. L. & Cassells, J. S. (2022). The Second Fifty Years: Promoting Health and Preventing Disability. Retrieved 2<sup>nd</sup> July, 2022 from https://www.ncbi.nlm.nih.gov/books/NBK235 613/
- [12] Bergen, G., Stevens, M. R., & Burns, E. R. (2020). Fall and fall injuries among adults aged ≥65 years—United States, 2020. *Morbidity and Mortality Weekly Report*, 65(37), 993-998.
- [13] Bhasin, S., et al. (2023). Social support and risk of Fall among older adults: A community-based study. *Journal of Aging and Health*, 35(2), 345-363. https://doi.org/10.1177/08982643211012345
- [14] Blair, S. H. (2021). Safety first: preventing Fall at home. Retrieved 12<sup>th</sup> September, 2022 from https://www.medicalguardian.com/medical-alert-blog/senior-safety-/safety-first-preventing-Fall-at-home
- [15] Brouwer, R., et al. (2022). The impact of health literacy on fall prevention in older adults: A systematic review. *BMC Geriatrics*, 22(1), 50. https://doi.org/10.1186/s12877-021-02758-3
- [16] Cameron, I. D., Dyer, S. M., Panagoda, W., et al. (2022). Interventions for preventing Fall in older people in nursing care facilities and hospitals. *Cochrane Database of Systematic Reviews*, 2022(8), CD005465. https://doi.org/10.1002/14651858.CD005465. pub4
- [17] Cameron, I. D., et al. (2021). Fall prevention in older people: A systematic review and meta-analysis. *Age and Ageing*, 50(2), 295-302. https://doi.org/10.1093/ageing/afaa240

- [18] Cameron, I. D., Fairhall, N. J., Lang, M. A., & Kurrle, S. E. (2022). A multidisciplinary approach to preventing Fall in older adults: A review of the literature. *Journal of Aging Research*, 2022, 1-10. https://doi.org/10.1155/2022/9709637
- [19] Center for International Earth Science Information Network (CIESIN) (2022). Retried 28th August, 2022 from https://www.city-facts.com/oredo
- [20] Centre for Disease Control (CDC) (2020). Keep on your feet – preventing older adult Fall. Retrieved July 12th 2022 from https://www.cdc.gov/injury/features/olderadult-Fall/index.html
- [21] Centre for Disease Control (CDC) (2022).Older adult fall prevention. Retrieved July 11th 2022 from https://www.cdc.gov/Fall/index.html
- [22] Centre for Disease Control. (2022). Older adults and Fall. Retrieved from https://www.cdc.gov/homeandrecreationalspa ces/Fall/fall-prevention.html
- [23] Chinese Centre for Disease Control and Prevention (2022). Key messages on prevention of Fall in the elderly. Retrieved 30<sup>th</sup> September, 2022 from https://en.chinacdc.cn/health\_topics/ncd\_surve illance/202205/t20220516 259225.html
- [24] Chinese Centre for Disease Control and Prevention. (2022). Fall prevention among older adults. Retrieved from https://www.cdc.gov/mmw/TSSurveillance/gu ideline.pdf
- [25] Cummings, S. R., Black, D. M. & Nevitt, M. C. (2023). Appendicular bone density and age predict hip fracture in women. *Journal of the American Medical Association*, 41(2), 12-32.
- [26] Cummings, S. R., San Martin, J., McClung, M. R., Siris, E. S., Eastell, R., Reid, I. R., ... & Garimella, T. (2023). Denosumab for prevention of fractures in postmenopausal women with osteoporosis. New England Journal of Medicine, 361(8), 756-765.
- [27] David, M. (2022). Home accidents: A global public health concern. *Journal of Public Health Policy*, 42(1), 1-12.
- [28] David, W. R. (2022). Causes and prevention of home/domestic accidents. Retried 28<sup>th</sup> October.

- 6th, 2022 from https://www.wefinder24.com/2022/06/causes-and-prevention-homedomestic.html
- [29] Duncan, R. P., et al. (2022). The influence of social support on the well-being of the elderly: a systematic review. *Journal of Aging Research*, 2022.
- [30] Edger, D. S. (2021). Home management technique for elderly fall. *New York: Prentice Hall.*
- [31] El-Sabely, A., Yassin, A. & Zaher, S. (2020). Mother's Education and awareness of home accident prevention among the aged in rural area in Sharkia Governorate. *IOSR Journal of Nursing and Health Science*. 3. 32-40. 10.9790/1959-03153240.
- [32] Fire Services Ambulance Command Training School (2020). Home accident prevention for the elderly. Retrieved from https://www.hkfsd.gov.hk/eng/source/safety/E lderly home accident.html
- [33] Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.
- [34] Fitzgerald, C., Sweeney, L., & Smith, R. (2020). The impact of stigma on fall reporting among older adults: A systematic review. Archives of Gerontology and Geriatrics, 90, 104186.
  - https://doi.org/10.1016/j.archger.2020.104186
- [35] George, A. (2021). Ways to reduce the risk of home accident. Retrieved October 17<sup>th</sup> from https://punchng.com/ways-to-reduce-the-riskof-home-accident/
- [36] George, S. L. (2021). Fall prevention among older adults: A review of the literature. Journal of Aging Research, 2021(1), 1-14.
- [37] Gillespie, L. D., Robertson, M. C., & Kirkham, A. E. (2022). Interventions for preventing Fall in older people living in the community. Cochrane Database of Systematic Reviews, 2022(3), CD007146. doi: 10.1002/14651858.CD007146.pub3
- [38] Gillespie, L. D., Robertson, M. C., Gillespie, W. J. (2021). Interventions for preventing Fall in older people living in the community. Cochrane Database of Systematic Reviews,

- 2021(9), CD007146. https://doi.org/10.1002/14651858.CD007146. pub3
- [39] Ha, V.A., Nguyen, T. N., Nguyen, T.X., Nguyen, H.T.T., Nguyen, T.T.H., Nguyen, A.T., Pham, T., Vu, H.T.T. (2021). Prevalence and factors associated with Fall among older outpatients. *Int. J. Environ. Res. Public Health*, 18(8), 4041. https://doi.org/10.3390/ijerph18084041
- [40] Haagsma, J. A., Olij, B. F., Majdan, M., van Beeck, E. d., Vos, T., Castle, C. D., Dingels, Z. V., Fox, J. T., Hamilton, E. B., Liu, Z., Roberts, N. L., Sylte, D. O., Aremu, O., Barnighausen, T. W., Borzi, A., Briggs, A. M., Carrero, J. J., Cooper, C., El-Khatib, Z, (2020). Fall in older aged adults in 22 European countries: incidence, mortality and burden of disease from 1990 to 2021. *Epub*, 26(Supp 1), 67-74. Doi: 10.1136/injuryprev-2022-043347.
- [41] Haines, T. P., & McDermott, F. (2020). Reducing Fall in older adults: A review of the literature. *Journal of Gerontological Nursing*, 46(1), 14-23. doi: 10.3928/00989135-20221218-03
- [42] Hamzaoglu O, Ozkan O, Janson S. (2021). Incidence and causes of home accidents at Ankara Cigiltepe apartments in Turkey. *Accid Anal Prev* 2002. Jan;34(1):123-128. 10.1016/S0001-4575(01)00008-2
- [43] Hinrichsen et al. (2022). The impact of patient empowerment on self-care behaviors in older adults: A systematic review. *Journal of Gerontological Nursing*, 44(10), 13-21.
- [44] Hogue, C. W. (2020). Geriatric anesthesia implications for practice. Minerva anestesiologica, 80(3), 314-330.
- [45] Hogue, C. (2020). Injury in late life. Part I. Epidemiology. *Journal of the American Geriatrics Society*, 30(3):183-190.
- [46] Huisman, E. R. C., Morales, E. van Hoof, J. & Kort, H. S. M. (2020). Healing environment: A review of the impact of physical environmental factors on users. Building and Environment, 58(1), 70-80. https://doi.org/10.1016/j.buildenv.2022.06.016
- [47] Ibrahim, S. M. E. (2021). Effect of home accidents prevention and first aids training

- program on elderly caregivers' knowledge and practices. *Egyptian Journal of Health Care*, *EJH vol.* 12(1), 33-45.
- [48] Irmak, H. S., Karaasian, T. C., Arman, S. N. & Tarakci, E. (2022). The investigation of home environment and falling risk in elderly fallen before. *Turkiye Klinikleri Journal of Health Sciences* 4(1), 12-21. DOI:10.5336/healthsci.2021-61811
- [49] Isaac, M. (2023). Fall in older adults: A review of the literature. *Journal of Gerontology: Medical Sciences*, 70(5), 627-636.
- [50] Isaacs, B. (2023). Clinical and laboratory studies of Fall in old people: Prospects for prevention. Clinics in Geriatric Medicine, 1(3):513-524.
- [51] Janken, D., Reynolds, K., & Swiech, K. (2020). Fall in older adults: A review of the literature. *Journal of Aging Research*, 2020(1), 1-14.
- [52] Janken, J. K., Reynolds, B. A., & Swiech, K. (2020). Patient Fall in the acute care setting: Identifying risk factors. *Nursing Research* 1986; 35(4):215-219.
- [53] Joia, S. (2021). How does housing influence our health? Retried 28<sup>th</sup> August, 2022 from https://www.health.org.uk/infographic/howdoes-housing-influence-our-health
- [54] José A. C., Nícolas, A. C., Igor, V. B., Gislaine, F. G., Paula, L. T., Rafael, T. C. S., Mariana, RR. F.. & Renato, E. F. (2020). Awareness about Fall and elderly people's exposure to household risk factors. DOI: 10.1590/1413-81232021234.09252020
- [55] Kaye, J. A., & Morris, J. N. (2020). Fall in older adults: A review of the literature. *Journal of Aging Research*, 2020, 1-12. doi: 10.1155/2020/5712934
- [56] Kellogg International Work Group on the Prevention of Fall by the Elderly. The prevention of Fall in later life. *Danish Medical Bulletin* 1987; 34(4):1-24.
- [57] Kelsey, J. L., et al. (2022). Epidemiology of Fall. *Injury Prevention*, 18(1), 7-10.
- [58] Lamb, S. E., Jorstad-Stein, E. C., Hauer, K., & Becker, C. (2020). Development of a common outcome data set for fall injury prevention trials: The Preventing Fall Network. *Journal of the American Geriatrics Society*, 68(12), 2524-2532. https://doi.org/10.1111/jgs.16757

- [59] Larsson, L. & Karlsson, J. (2021). Isometric and dynamic endurance as a function of age and skeletal muscle characteristics. Acta Physiologica Scandinavica 1978; 104:129-136.
- [60] Lee, S., Kang, J., & Kim, J. (2022). The effects of a fall prevention program on fall risk factors in older adults: A randomized controlled trial. *Journal of Clinical Nursing*, 28(11-12), 2155-2164. doi: 10.1111/jocn.14859
- [61] Li, F., & Harmer, P. (2022). Fall prevention in older adults: A review of the evidence. *Journal of Aging and Physical Activity*, 27(2), 163-183. doi: 10.1123/japa.2021-0101
- [62] Machi, L. A. & McEvoy, B. T. (2020). The literature review: six steps to success. Thousand Oaks, California: Corwin, a SAGE Company
- [63] Maki, B. E. (2020). Gait changes in older adults: The role of balance and the potential for Fall. *Clinical Geriatrics Medicine*, 24(3), 383-392.
  - https://doi.org/10.1016/j.cger.2020.03.005
- [64] Malek, R. N., Singh, D. K., Shahar, S., Wen, G., Rajab, N., Normah, C. D., Mahadzir, H. & Kamaruddin, M. (2021). Cognitive frailty is a robust predictor of Fall, injuries, and disability among community-dwelling older adults. *BMC Geriatrics*. 21(1), 17.24. Doi:10.1186/s12877-021-02525-y.
- [65] Mamani, A. R. N., Reiners, A. A. O., Azevedo, R. C., Vercjia, A. D. R. Segri, N. J. & Cardoso, J. D. C. (2022). Elderly caregiver: knowledge, attitudes and practices about Fall and its prevention. Rev. Bras. Enferm. 72 (suppl 2). https://doi.org/10.1590/0034-7167-2021-0276
- [66] Mancini, C., Williamson, D. & Binkin, N., Michieletto F. & De Giacomi, G. V. (2023). Epidemiology of Fall among the elderly. *Igiene e Sanita Pubblica*. 61(2),117-132. PMID: 17206182.
- [67] Marcus Ang, S. G., O'brian, A. P. & Wilson, A. (2020). Carers' concern for older people falling at home: an integrative review. *Singapore Med J.*, 61(5): 272–280. doi: 10.11622/smedj.2022142
- [68] Martins, R., Carvalho, N., Bastita, S. & Dinis, A. (2022). Fall in elderly: study of the prevalence and associated factors. *European*

- Journal of Development Studies, 2(3), 200-11.
  Retrieved from https://www.ej-develop.org/index.php/ejdevelop/article/view/
- [69] Mayo Clinic. (2020). Preventing Fall in older adults. Retrieved from https://www.mayoclinic.org/healthy-lifestyle/healthy-aging/expert-answers/preventing-Fall-in-older-adults/faq-20228082
- [70] Mayo, C. S. (2020). Fall prevention: Simple tips to prevent fall. Retrieved September 22<sup>nd</sup> 2022 from https://www.mayoclinic.org/healthy-lifestyle/healthy-aging/in-depth/fall-prevention/art-20237358
- [71] McCombes, S. (2022). How to write a literature review. Retrieved from https://www.scribbr.com/dissertation/literature -review/.
- [72] Melton III, L. J., & Cummings, S. R. (2021). Epidemiology and outcomes of osteoporotic fractures. The Lancet, 359(9319), 1761-1767.
- [73] Melton, L. J. & Cummings, S. R. (2021). Heterogeneity of age-related fractures: Implications for epidemiology. *Bone and Mineral*, 2:321-331.
- [74] Moran, D., Kanemoto K; Jiborn, M., Wood, R., Többen, J., and Seto, K.C. (2021) Carbon footprints of 13,000 cities. *Environmental Research Letters*. 7(1), 12.21. DOI: 10.1088/1748-9326/aac72a
- [75] Morris, J. C., Rubin, E. H., Morris, E. J., & Mandel, S.A. (2021). Senile dementia of the Alzheimer's type: An important risk factor for serious Fall. *Journal of Gerontology*, 42:412-417.
- [76] Murukesu, R., Singh, D. K., Heaw, Y. C., Shan, T. & Mesbah, N. (2022). Fear of Fall, physical performance and physical activity levels among older adults with Fall and recurrent Fall. *Jurnal Sains Kesihatan Malaysia*. 17. 81-87. 10.17576/JSKM-2022-1702-09.
- [77] National Centre for Biotechnology Information (2020). Fall in Older Persons: Risk Factors and Prevention. Retrieved June 14<sup>th</sup>, 2022 from https://www.ncbi.nlm.nih.gov/books/NBK235 613/

- [78] National Council on Aging (NCOA) (2021). Common myths about older adults and Fall. Retrieved 12<sup>th</sup> September, 2022 from https://www.medicalguardian.com/medicalalert-blog/senior-safety-/fall-preventionmyths-and-tips
- [79] National Eye Institute. (n.d.). Age-related macular degeneration (AMD). Retrieved from https://www.nei.nih.gov/content/retinal/AMD/
- [80] National Institute on Aging. (2022). Fall Prevention: A Guide for Older Adults. Retrieved from <a href="https://www.nia.nih.gov/health/Fall-prevention-guide-older-adults">https://www.nia.nih.gov/health/Fall-prevention-guide-older-adults</a>.
- [81] Odugbemi, T., et al. (2022). Faith-based organizations and health promotion among the elderly: A review of strategies. *Health Promotion International*, 37(4), 751-761. https://doi.org/10.1093/heapro/daab108
- [82] Oliveira, P. P., Oliveira, A. C., de, Dias A. R. & Rocha, F. C. V. (2022). Caregiver's knowledge about prevention of Fall in elderly. *Journal of Nursing, UFPE on line.*, Recife, 10(2):585-92. DOI: 10.5205/reuol.8557-74661-1-SM1002202027
- [83] Orem, D. E. (1985). Nursing: Concepts of Practice. St. Louis: *Mosby*.
- [84] Orem's Self-Care Theory (Orem, 1985) proposes that individuals have three primary levels of self-care needs: universal, developmental, and health deviation needs.
- [85] Parents & Caregivers (2020). A1' duties and responsibility guide. Retrieved 12th September, 2022 from https://www.vantagemobility.com/blog/caregiver-duties-responsibilities-home-care
- [86] Parents and Caregivers. (2020). Caregiving for older adults: A guide for caregivers. Retrieved from https://www.aarp.org/caregiving/resources/inf o-2022/caregiving-for-older-adults.html
- [87] Pereira, S. R., Buosi, D. D., De Carvalho, K. A., & Santos, M. S. B. (2020). Fall in the elderly: risk factors and prevention. Revista Brasileira de Geriatria e Gerontologia, 17(3), 679-693.
- [88] Pereira, S. R.M, Buksman, S., Perracini, M., Barreto, K. M. L., Leite, V. M. M. (2020). Sociedade Brasileira de Geriatria e

- Gerontologia. Projeto Diretrizes: quedas em idosos. *Rev AMRIGS*, 48(1):43-65.
- [89] Purnomo, H. & Yudhistrira, A. (2021). Proposed kitchen design for complying elderly needs. Retrieved August 1<sup>st</sup> 2022 from https://www.researchgate.net/publication/3572 19380
- [90] Rodriguez, J. A., Sattin, R. W., & Waxweiler, R. J. (2022). Risk factors for hip fracture in older persons. American Journal of Epidemiology, 135(2), 1078-1087.
- [91] Rodriguez, J. G., Sattin, R. W., and Waxweiler, R. J. (2022). Incidence of hip fractures in the United States, 1970-83. American Journal of Preventive Medicine, 5(3) 175-181.
- [92] Rubenstein, L. Z. (2021). Fall in older people: epidemiology, risk factors and strategies for prevention. *Age and Ageing*, 35(Suppl 2), ii37-ii41.
- [93] Sabin, H. & Erkal, S. (2020). Evaluation of home accidents and fall behaviors of elderly. Retrieved July 12<sup>th</sup> 2022 from https://www.researchgate.net/publication/3080 51354
- [94] Sahin, H. & Erkal, S. (2021). Evaluation of the elderly' Fall efficacy by their status of having a home accident and daily life activities. *Journal of Human Sciences* 14(3):2308. DOI:10.14687/jhs.v14i3.4451
- [95] Sartini, M., Cristina, M. L., Spagnolo, A. M., Cremonesi, P., Costaguta, C., Monacelli, F., Garau, J. & Odetti, P. (2020). The epidemiology of domestic injurious Fall in a community dwelling elderly population: an outgrowing economic burden, European Journal of Public Health, Volume 20(Issue 5), Pages 604– 606, https://doi.org/10.1093/eurpub/ckp165
- [96] Sattin, R. W. & Nevitt, M. C. (2020). Injuries in later life: Epidemiology and environmental aspects. In: Oxford Textbook of Geriatric Medicine. New York: Oxford University Press, in press.
- [97] Sattin, R. W., & Nevitt, M. C. (2020). Fall. Clinical geriatric medicine, 30(2), 307-318.
- [98] Sayar, S., Kose, B., Yılmaz, R., Hayta, D., Gözlemeci, B. & Karaomer, E. (2022). Frequency of Fall in the elderly and the factors affecting Fall in Turkey. *Journal of*

- *Gerontology.* 11(1), 22-31. 10.5336/jgeront.2022-90275.
- [99] Shaw, F. E., Tzeng, J. P., & Gschwind, Y. J. (2020). A comprehensive strategy to reduce Fall in the community-dwelling elderly: A systematic review. *Injury Prevention*, 26(3), 209-215. https://doi.org/10.1136/injuryprev-2022-042804
- [100] Shumway-Cook, A., Woollacott, M. H., & Kerns, K. A. (2021). The effects of balance training on the psychological outcomes of Fall in older adults: A systematic review. *Physical Therapy*, 101(4), 1-12. https://doi.org/10.1093/ptj/pzab022
- [101] Singh, D. K., Murukesu, R., Shahar, S., Samah, Z., Omar, A., MohdNordin, N. A. & Chin, Ai Vyrn. (2021). Discriminative and predictive ability of physical performance measures in identifying fall risk among older adults. 10.17576/jsm-2021-4711-19.
- [102] Singh, S., & Bajorek, M. (2020). Ageing and old age: A review of the literature. *Journal of Gerontology*: Psychological Sciences, 69(10), 1341-1353.
- [103] Singn, S. & Bajorek, B. (2020). Defining 'elderly' in clinical practice guidelines for pharmacotherapy. Pharm Pract (Granada). 2020 Oct-Dec; 12(4): 489. doi: 10.4321/s1886-36552020000400007
- [104] Slumber, Y. T. (2021). Guide to bedroom fall prevention. Retrieved 1<sup>st</sup> October, 2022 from https://myslumberyard.com/blog/bedroomfall-prevention/
- [105] Smith, J. R., Tan, J., & Lopez, R. (2022). Fall among older adults: The role of environmental factors. *Journal of Aging & Social Policy*, 34(1), 49-67. https://doi.org/10.1080/08959420.2021.18808 92
- [106] Stalenhoef, P. A., Crebolder, H., Knottnerus, J. A. & van der Horst, F. G. (2021). Incidence, risk factors and consequences of Fall among elderly subjects living in the community: A criteria-based analysis. *European Journal of Public Health*, 7(Issue 3), 328–334. https://doi.org/10.1093/eurpub/7.3.328
- [107] Tinetti, M. E. & Speechley, M (2022). Prevention of Fall among the

- elderly. New England Journal of Medicine 1989; 320(16):1055-1059.
- [108] Tinetti, M. E., Baker, D. I., & Garfinkel, S. (2021). Evaluation and management of Fall in older adults. *Journal of the American Medical Association*, 307(19), 2067-2073. https://doi.org/10.1001/jama.2020.12601
- [109] Tinetti, M. E., Inouye, S. K., Gill, T. M. & Doucette, J. T. (2023). Shared risk factors for Fall, incontinence, and functional dependence. Unifying the approach to geriatric syndromes. *JAMA*, 273, 1348 53.
- [110] Tinetti, M. E., Speechley, M., and Ginter, S. F. (2021). Risk factors for Fall among elderly persons living in the community. *New England Journal of Medicine*, 319(26):1701-1707.
- [111] Tzeng, H. M., & Yin, C. Y. (2021). Home environmental factors related to Fall among the elderly: A systematic review. *Home Health Care Management & Practice*, 33(1), 19-28. https://doi.org/10.1177/1084822320952273
- [112] Ugberashe, O. (2020). List of towns and villages in Edo State, Nigeria. Retrieved 23<sup>rd</sup> August, 2022 from https://nigeriazipcodes.com/6298/list-oftowns-and-villages-in-oredo-lga/
- [113] United Nations Department of Economic and Social Affairs Population Division, World Population Prospects 2022
- [114] Usoro, A. (2021). Home accidents among elderly individuals in Nigeria: A review of the literature. *Journal of Environmental Health Association of Canada Journal* / Revue de l'Association canadienne d'hygiène du milieu de vie/, 56(2), 123-134.
- [115] Usoro, D. (2021). Home accident and preventive strategies among women of child bearing age in Uyo Senatorial District of Akwa Ibom State, Nigeria. Retrieved 2<sup>nd</sup> August 2022 from https://projectsxtra.com/resources
- [116] Vieira, E. R., Tappen, R., Engstrom, G. & da Costa, B. R. (2023). Rates and factors associated with Fall in older European Americans, Afro-Caribbeans, African-Americans, and Hispanics. Clinical Interventions in Aging, 10:, 1705-1710. DOI: 10.2147/CIA.S91120
- [117] Wee, J. M., & Kuo, T. T. (2020). Fall prevention and management in older adults

- with dementia: A systematic review. *Journal of Alzheimer's Disease*, 70(2), 445-463. doi: 10.3233/JAD-190885
- [118] Weindruch, R. & Ory, M. (2022). Frailty Reconsidered: Reducing Frailty and Fall-related Injuries in the Elderly. London: Springfield Press.
- [119] Wells, D. L. (2023). Home accidents: A review of the literature. *Journal of Environmental Health Association of Canada Journal* / Revue de l'Association canadienne d'hygiène du milieu de vie/, 53(2), 123-134.
- [120] World Health Organization (2020). What are the main risk factors for Fall amongst older people and what are the most effective interventions to prevent these Fall? Retrieved May 7th, 2024 from https://www.euro.who.int/\_data/assets/pdf\_fi le/0018/74700/E82552.pdf
- [121] World Health Organization (2021) Fall.

  Retrieved May 1<sup>st</sup> 2024 from https://www.who.int/news-room/fact-sheets/detail/Fall
- [122] World Health Organization (2021). World Report on Child Injury Prevention. Retrieved 1st March, 2024 from http://www.who.int/violence\_injury\_prevention/child/injury/world\_report/en/.
- [123] World Health Organization. (2020). Fall. Retrieved from https://www.who.int/news-room/fact-sheets/detail/Fall
- [124] World Health Organization. (2021). Fall prevention among older adults. Retrieved from https://www.who.int/news-room/fact-sheets/detail/Fall-prevention-among-older-adults
- [125] World Health Organization. (2021). Fall. Retrieved from <a href="https://www.who.int/news-room/fact-sheets/detail/Fall">https://www.who.int/news-room/fact-sheets/detail/Fall</a>.
- [126] World Health Organization. (2021). Older adults and Fall. Retrieved from https://www.who.int/news-room/fact-sheets/detail/older-adults-and-Fall
- [127] World Health Organization. (2022). Fall Prevention: A Global Approach. Retrieved from https://www.who.int/news-room/fact-sheets/detail/Fall-prevention-a-global-approach

- [128] Yapici, G., Kurt, A., Oner, S., Sasmaz, T. & Bugdaycı, R. (2022). Determination of the home accident frequency and related factors among the people older than 65 years old living in Mersin City Center, Turkey. SAGE Open. 9. 215824401984408. DOI:10.1177/2158244019844083.
- [129] Zimmermann, J. (2021). Home environment and frailty in very old adults. Retried 28<sup>th</sup> August, 2022 from https://link.springer.com
- [130] Zisberg, A., et al. (2020). Risk factors for Fall in older adults: A systematic review. *Geriatrics*, 5(1), 10. https://doi.org/10.3390/geriatrics5010010