The Impact of (Domestic) Falling on General Health Status of elderly in Beni Suef Governorate

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Abstract

Background: Globally, falls are a major public health problem .elderly falls consider one of the major causes of morbidity and mortality. Elderly falls has a serious burden on elderly and community health. Falls are the primary cause of thickness and death among the elderly which has a serious impact either on physical ,social ,or psychological and emotional health. **Aim:** To assess the impact of domestic falling on general health status of elderly in beni suef governorate. **Methodology:** this study was Descriptive study, **The Setting:** the study was conducted in three geriatric homes in Beni suief city,**The sample** , A convenient sample of all elderly in the stated geriatric homes (100) elderly were included in the study.**The Tool** : Two data collection tools were used in the current study:**First tool**:   Socio-demographic Questionnaire, **Second tool**:   Elderly Health Assessment Questionnaire,(Part 1:physical health rating scale , Part 2: Psychological and Emotional Scale , Part 3: Social Heath Scale , Part 4: Elderly Rehabilitation Practices Scale).**The result:** Two third of studied elderly were male and were not read and write.more of them were in the age category (70<80). Nearly two thirds of the elderly had high impact of domestic falls on their physical health status and nearly one third had moderate impact . three quarters of the studied elderly had fair impact of domestic falls on their psychological and emotional health. three quarters of them (75%) had moderate impact on their social health status while (20% and 5%) from them had low and high impact **respectively** .**Conclusions :** there is a high significant statistical relation between socio demographic characteristics and total impact of domestic falls on elderly social health status as p value >0.01. there is high significant statistical relation between total impact of domestic falls on Psychological and emotional health and their age, marital status, occupation and weight as p value=p<0.01(0.000),66. present significant correlation between psychological variable and the following variables (fall, physical ,social),while no correlation between psychological and rehabilitation .**Recommendations:** Continuous health education for elderly and care giver about the   medical δ environmental reasons of falls ,risk factors of falls ,measures to prevent domestic falls , how to overcome and avoid fallings consequences .

Keywords: Impact ,Domestic, Falling**,** elderly, General Health Status.

Introduction

Falls in older adults are a common occurrence and may lead to serious injuries (like head injury and fractures). Recurrent falls are also frequent and are responsible for significant morbidity and mortality in older adults. It points toward an overall poor physical and cognitive status of the individual. In addition to physical injury, recurrent falls may result in fear and psychological trauma ("post-fall syndrome"), where an elderly refuse to move for fear of recurrent falls and injury**(Vaishya & Vaish, 2020)**.

1 in 4 older adults reported falling this equals about 36 million falls**(CDC).** Falls can threaten the health and independence of older adults. More than 8 million falls required medical attention or limited activity for at least a day .More than 32,000older adults died from falls that's 88 older adults every day. Over 10,000 people in the **United States** turn 65 every day. The number of falls and fall injuries will increase as the population of older adults grows. Death rates from falls have increased about 30% in the last decade. Healthcare costs are also on the rise. In one year alone, medical costs for falls are about $50 billion**. (CDC, April 13, 2023)**

All adults, aged 65 and over, are at risk for a fall. Older adults more likely to fall include females, those 85 and older, and **American, Indian and Alaska Natives**. Falls vary by where you live. While falls are common among people across the **United States**, there are some differences by state. Even in the state with the lowest percentage of falls, 1 out of 5 older adults reported a fall.**(CDC, April 13, 2023)**

It is estimated that about one-third of older adult experience one or more domestic falls each year, while 10% experience multiple falls annually. In older adults, there occur age-related changes in the

nervous system, e.g., impairment of vision and hearing, reduction of proprioceptive and vibratory sensation, increased sway, altered gait, and poor positional control. These changes alone may not be responsible for a fall but significantly contribute to it. Problems like physical ailments, cognitive decline, medications, and environmental hazards may be responsible factors for it**(Vargas et al., 2020).**

Fall and falls related injury are a common and serious problem for older people. People over the age of 65 and older have the highest risk of falling, with 30% of people over the age of 65 and 50% of people over the age of 65 falling at least once a year. The human cost of falling includes distress, pain, injury, loss of confidence, loss of independence and mortality . **(LeLaurin, J. H,2019)**

Each year, millions of older people—those 65 and older—fall. In fact, more than one out of four older people falls each year, but less than half tell their doctor. Falling once doubles your chances of falling again. One out of five falls causes a serious injury such as broken bones or a head injury **(CDC)2016**. Each year, 3 million older people are treated in emergency departments for fall injuries.Over 800,000 patients a year are hospitalized because of a fall injury, most often because of a head injury or hip fracture. Each year at least 300,000 older people are hospitalized for hip fractures. More than 95% of hip fractures are caused by falling, usually by falling sideways .Falls are the most common cause of traumatic brain injuries (TBI). In 2015, the total medical costs for falls totaled more than $50 billion. Medicare and Medicaid shouldered 75% of these costs. **(CDC, August 5, 2016)**

As our population ages, the prevalence of falls among older adults is increasing. According to the **Centers for Disease Control and Prevention** (CDC), more than one in four older adults report a fall each year. In 2021, 38,742 older adults aged 65 and older died from preventable falls, and nearly 2.9 million were treated in emergency departments. Over the past 10 years, older adult fall deaths have increased 60%, while emergency department visits have increased 20%. At the same time, the number of fall deaths among individuals younger than 65 increased 23%, but emergency department visits have decreased 37%. **(CDC ,2017)**

The physical impact of domestic fall on an older adult .Broken bones or sprains: Ankles, hips, arms and wrists are susceptible to fractures or sprains after a fall. Bruises: Older adults should visit the doctor after every fall, even if their injury is minor, like bruising or swelling. Head injuries: Hitting the head after a fall can result in injuries like concussion, traumatic brain injury (TMI) or chronic traumatic encephalopathy (CTE). Long lie symptoms: "Long lie" is a term used when older adults who fall cannot stand up, resulting in them lying until they receive help. Long lie can exacerbate the symptoms of a fall. In severe cases, it can lead to pressure sores, dehydration or hypothermia. Grueling recovery process: Healing from a fall as an older adult can be a long and physically demanding process. Increased susceptibility to falling again: Falling once doubles the possibility of falling again, which can mean a more severe injury. Death: Of the about 36 million falls reported among older adults annually, about 32,000 are fatal. (**Senior citizen).**

Psychological impact of domestic Falls for Older Adult : Fear: Falling once can make older adults fearful of falling again, which may make them less willing to leave home, especially during the wintertime or amid adverse weather. Loneliness and isolation: When the fear of falling causes older adults to stay at home, they may withdraw from social activities or family time, which can result in feelings of loneliness or isolation. Depression: The reasons for experiencing depression after a fall are broad — older adults may feel discouraged that they cannot move the way they used to, or they may feel depressed due to loneliness. Social interaction has been found to alleviate symptoms of depression in older adults who've fallen. Embarrassment or decreased self-esteem: Older adults who take pride in their independence may experience a dip in self-esteem after a fall. They may feel less in control of their body or less confident in their movement abilities**(Senior citizen. 26 Feb. 2024)**

Social impact of domestic Falls for Older Adult the social consequences of falling ; for example, they have revealed that older people had chosen to reduce their outdoor activities, which thus reduced their social relationships with friends or family. Using prospective designs, researchers have also found that falls are significantly associated with a restriction in daily activities or with an increase in caregiver burden . However, these researchers did not systematically examine the processes underlying falls, health status and social life; moreover they did not suggest any theoretical explanation for this impact of falling on functioning or social relationships. Finally, we did not find any study that compared the long-term impact of falling on social dimensions among middle-aged and older people, although activity-

related falls are more prevalent among younger cohorts.(**Faes et al., 2019**)

Financial impact of domestic Falls for Older Adults :Surgery: Serious fractures — especially to the spine or hip — may require surgical intervention, which can be costly.Medication: Prescription medication to help with pain or other symptoms may be covered by insurance or paid for out of pocket. Long-term hospitalization: Certain injuries may necessitate a longer hospital stay.Losing work: Some older adults may still be working at the time of their injury and may lose work if the injury keeps them away from the office. Having to move: Older adults facing long-term complications due to a fall may have to move to an assisted living facility or nursing home. Walking aids: Investing in walking aids may help older adults who've fallen navigate their home or community more confidently and safely. Home renovations: When older adults want to continue living at home after a fall injury. .(**Faes et al., 2019**)

Nurses play important roles in implementing fall prevention programs. These include patient assessment, communication with nursing assistants ,nursing documentation ,including patients in the plan of care,and meeting the patients' needs such as bathroom supervision. Nurses are critical stakeholders for fall prevention programs. They form the largest group of healthcare personnel whose contributions are critical in integrating fall prevention policy and achievement of outcomes.18 Nurses are a part of a fall prevention interdisciplinary team of healthcare workers such as physical therapists, pharmacists, occupational therapists, patients, and their family members who collaborate to achieve fall prevention goals(Ojo & Thiamwong, 2022)**.**

Significance of the study

In Egypt, prevalence of falls among elderly is estimated to be 33.3%. Residents of nursing homes suffer falls at nearly twice the rate of persons living in the community and every year, 60% of nursing home residents' fall. Institutionalized elderly people are three times more likely to fall than those who live in the community, this may be explained by loss of family relationships, lower functional capacity and physical inactivity due to social isolation *(Ismail et al.,2018).*

Falls can result in negative physical and psychological consequences including injuries, such as fractures, lacerations, or head injuries. Fall-related injuries, such as hip fractures, increase the mortality and morbidity rate and the other consequences

including depression, anxiety, stress, loss of independence, and poor quality of life. Falls increase the financial burden healthcare system for hospitalization and continued care as about 30% of persons who fall require medical attention (**Datta,A, Datta,R &Elkins, 2019**).

Nurses play an important role in prevention of falls among elderly by assesses the risk of falls in an elderly and prevent it. A nurse should be capable to assess the needs of the elderly to avoid falls and supported the elderlies enough to live their life without the fear of falls in a physically and mentally sound environment. A nurse should identify the risk of falls and make proper care plan or reference to a physician or required parties. A nurse's role starts form the early prevention to the rehabilitation of falls and further follow up and evaluation *(Rajesh, 2019)*.

Aim of the study

The aim of the study is:To assessment the impact of domestic falls on general health status of elderly in beni suef governorate. Through :

1-Assess the impact of domestic falling on physical health status of elderly.

2-Assess the impact of domestic falls on psychological and emotional health status .

 3-Assess the the impact of domestic falls on social health status of elderly .

Research questions

- What is the impact of domestic falling on general health status of elderly?

Methodology

The subjects and method of the current study were designed under the four main designs as following :

- I.   Technical Item
- II.   Operational Item
- III.   Administrative Item
- IV.   Statistical Item
    - I. **Technical Items**

It includes,(research design, study settings, subjects and tools of data collection)

Research Design

A descriptive research design was utilized to conduct the study.The design helps to provide an accurate description of observations of a phenomenon of interest.

Study Settings:

The study was conducted at three geriatric homes at Beni-Suef governorate namely:

1- El-khair and El-Baraka geriatric home(governmental place), at the East of the Nile .

2- Young Muslim Women geriatric home (governmental blace),at Mold El Nabi Square.

3- Red Crescent geriatric home(governmental place) ,at Salah Salem Street.

Subjects:
Sample type:

A convenient sample of all elderly in the stated geriatric homes (100) elderly were included in the study.The subjects were selected according to the following criteria.

Inclusion Criteria:

- All elderly of both gender (male and female) who exposed to risk of falling before or already exposed to falling.
- Permanent residents at three selected geriatric homes.
- Accept to participate in the study.
- Should be aware ,mature, oriented to others

Tools for data collection:

Two data collection tools were used in the current study:
First tool: Socio-demographic Questionnaire:
It was developed by the investigator after reviewing of national and international related literatures.it was written in a simple Arabic language , to assess socio-demographic characteristics of the study sample such as age, gender, level of education, marital status, income, occupation, falls history…etc.
Second tool: Elderly Health Assessment Questionnaire:
This tool was adapted from*(Benyamini et al., 2000, Tennant et al., 2006,Lovibond and Lovibond, 1995).* It is composed of 4 parts:

 Part 1:physical health rating scale which used to assess the impact of domestic falls on the physical health for elderly (15 items) such as(Affect your going to work Affect your daily life and homework practices, Cause you disability or distortion, Affect light activities such as running, lifting light objects, and participating in all kinds of sports, Affect your ascent of all stairs , Affect walking more than one mile . This scale contains five subscales: physical functioning, bodily pain, general health perceptions and general mental health...etc)(**Benyamini et al. (2000)**.

Scoring system
Items were scored using 5points Likert scale ranging from (1) for obvious effects to (5) for don't care. The overall scores were summed up and categorized into the following categories (Range: 15 – 75):
- High (>75%) >57
- Moderate (35% <75%) 28 <57
- Low (<35%) < 28

Part 2: Psychological and Emotional Scale:
This scale was used to assess the impact of domestic falls on the psychological and emotional health

status of elderly and composed of 35 items such as (Found it hard to calm down, Don't feel any positive feeling at all , Still feel useful, Tend to overreact to situations, Became worried than before, Felt sad and restless., Felt stressed and broken and a lot of confusion and turmoil ...etc .)(**Tennant et al. (2006) Lovibond (1995)** .

Scoring system:
Items were scored using 4 points Likert scale ranging from (1) for no to (5) for don't remember.The overall scores were summed up and categorized into the following categories (Range: 35 – 140):
- Good (>75%) >105
- Fair (35% <75%)49<105
- Poor (<35%) <49

Part 3: Social Heath Scale:
It is a 27items such as (Lost the principle of self-affirmation in the professional environment , Lost the principle of self-affirmation in the family environment, Difficult to work or take the initiative to do work, Felt lonely, empty, and distant from others after the fall, Find help from others and not alienate you and the interest is still present, Accept the new health condition and adapt to it., Surrendered to isolation and lack of social participation...etc)
scale for assessing impact of domestic falls on social health status of elderly. (**Frenchay Activities Index,**)
Scoring system:
Items were scored using 4 points Likert scale ranging from (1) for yes to (4) for don't care.The overall scores were summed up and categorized into the following categories (Range: 27 – 108):
- High(>75%) >81
- Moderate (35% <75%) 38<81
- Low (<35%) <38

Part 4: Elderly Rehabilitation Practices Scale
This scare was used to assess the rehabilitation practices of elderly after fall exposure and composed of 17 item such as (Use a cane or walker to help you walk safely, Wear appropriate and non-slippery shoes, The tiles and floors been dried frequently,
Practice physical therapy to maintain flexibility and fitness, Maintain periodic examination on a regular basis , Keep a regular vision check, Keep a regular hearing check, Keep a regular hearing check, Keep checking sensation regularly…etc) **Morse Fall Scale (Adapted with permission, SAGE Publications)**
Scoring system:
Items were scored using 4 points Likert scale ranging from (1) for yes to (3) for don't care.The overall scores were summed up and categorized into the following categories (Range: 17 – 51):
- Good (>75%) >39
- Fair (35% <75%) 18<39

– Poor (<35%) <18

Validity:

Validity of the data collection tools was ascertained by (3) experts in Community Health Nursing and by (2) Psychiatric Health Nursing(5) professor. Their opinions elicited regarding to the content, the format, layout, consistency, accuracy and relevancy of the tools.

Reliability:

Reliability analysis was done through measurement of internal consistency of the tool through Cronbach's Alpha Coefficients.

The following table shows the results of the reliability analysis of the tools:

Items	Cronbach alph Coefficients
Physical Health Rating Scale	0.824
Social Heath Scale:	0.819
Psychological and Emotional Scale:	0.837
Elderly Rehabilitation Practices Scale	0.843
Overall	0.852

Ethical Considerations

The research approval was obtained from the ethical committee of the faculty of medicine Beni-Suef University. The investigator was clarified the aims of the study to elderly included in the study before starting. Oral consent was obtained from the elderly before included in the study; a clear and simple explanation was given according to their level of understanding. They secured that all the gathered data was confidential and used for research purpose only. The investigator was assuring maintaining anonymity and confidentiality of subjects' data included in the study. The elderly were informed that allowed to choose to participate or refused the study and have the right to withdrawal from the study at any time.

II. Operational Items

It included operational design for this study consisted of the following phases, namely preparatory phase, pilot study and field work

Preparatory Phase

This phase included reviewing of current and past, local and international related literature and theoretical knowledge of various aspect of the study using books, articles, periodical magazines and internet to develop tools for data collection. During this phase, the investigator also visited the selected places to get acquainted with the personnel and the study settings. Development of the tools was under supervisors' guidance and experts' opinions were considered.

Pilot Study

The pilot study was carried out on 10% those represent (10) of elderly in order to test the applicability of the constructed tools and the clarity of the questions. The pilot has also served to estimate the time needed for each subject to fill in the questionnaire. According to the results of the pilot, no necessary modifications were done based on the pilot study finding :because unvital \unfundamental corrections and omissions of items were performed, so the elderly were included in the study sample.

Fieldwork

Data were collected through Five months, (from the beginning of (August 2022 to the end of December 2022).The investigator firstly met with the elderly at the previously mentioned settings, explained the purpose of the study after introducing herself. The investigator selected elderly, based on pre-mentioned inclusion criteria. Then, individual interviewing was done after obtaining elderly consent to participate. The investigator was visit the study setting 2days / week (Sunday and Wednesday) from (9AM -2PM).The questionnaire was filled by elderly which take 15-30 minutes. The aim and the process of the study was explained to the studied elderly and collected by using the previously mentioned tools.**III. Administrative Items**

An official permission was obtained by submission of a formal letter issued from the Dean of faculty of nursing, Beni- Suef University to the directors of selected geriatric homes. Then the investigator collected the necessary data for current study after a brief explanation of the aim of the study . Using proper channels of communication from authorized personnel

IV. Statistical Items

The collected data were analyzed using statistical package for social sciences (SPSS 22.0) for descriptive statistics in the form of frequencies and percentages for categorical variables. Means and standard deviations were used for continuous variables. Pearson correlation coefficient (r) was used for measuring the correlation between numerical variables. Chi square tests ($\chi 2$) were used for correlating categorical variables.

Significance of the results:

Highly significant was considered at p-value < 0.01.

Statistically significant was considered at p-value < 0.05

Non-significant was considered at p-value ≥ 0.05

Result:

Table 1: **summarize** that, about two thirds of studied elderly (61%, 60%, 64%) were male, had from one to three children and were not read and write . Concerning their age, more than half of them (54%) were in the age category (70 < 80 years) with mean age (74.65±7.83).

Figure (1): Display that, nearly half of the elderly (45%) were widow and more than one third of them (38%) were married, while (12%) of them were divorced, and (5%) of them were single.

Figure(2): Illustrate that , more than half of elderly (51%) were retired , while more than one third had special work (34%)and about (15%)were house wife.

Figure (3): Display that, more than half of elderly (52%) were living at geriatric homes, while one third (30 %) were lives with their family and about (18 %) were live with their relatives.

Figure (4):Illustrate that, nearly two third of elderly (65%) had not enough income , while one quarter of them (25%) had enough income and about (10 %) had enough income and save .

Table(2) :Summarize that, most of the studied elderly reported 《 YES 》 with all items of reasons of domestic falls ,**except** the psychiatric illness and Neurological diseases ,more than three quarters (76%-83%) reported 《 NO 》 .

Table(3):**Exhibit** that, according to environmental safety most of the studied elderly said 《 yes 》 with all items, **except** (30%, 47%,64%,70%, 65%,65%) reported 《 No 》 with Floor of the house always dry, The bathroom floor safe, Rushing to answer the phone, Rushing to the bathroom (especially at night), Distraction by multitasking , Walking while talking and not noticing an environmental hazard .

Table(4): Regarding impact of domestic falls on physical health status most of the sample say 《 Obvious Effect》 with all items ,**except** more than half of them say 《 Don't care》 with (Affect light activities), and the major of them (81%)say 《 don't know 》 with (Still feel useful),and **(Mean±SD)=** 24.37±6.67 .

Figure (5): Displays that, nearly two thirds of the elderly (65%) had high impact of domestic falls on their physical health status and nearly one third (30%) had moderate impact while only (5%) had low impact.

Table(5) :Summarize that , regarding to the effect of domestic fall on psychological and emotional status, most of the sample reported 《 Sometimes 》 with all items ,**except**(56%)say 《 Don't remember》 with (Found it hard to calm down) and most of them reported 《 No》 with .

Figure (6): Depict that, three quarters of the studied elderly (75%) had fair impact of domestic falls on their psychological and emotional health .Nearly one quarter (23%) had poor impact, while very limited number of them (2%) had good impact of domestic falls.

Table (6): Show that ,according to the impact of domestic falls on their social status ,more than three quarters of the elderly(84%,76%) say 《 Yes》 with Lost the principle of self-affirmation in the family environment and Difficult to work or take the initiative to do work, **except** with (Find help from others and, Still feel the existence of mutual trust).(45%,56%) say 《 Sometimes 》 .

Figure (7): Display that ,three quarters of them (75%) had moderate impact on their social health status while (20% and 5%) from them had low and high impact

Table (7): Regarding to the impact of domestic falls on rehabilitation practices, more than half of the elderly say 《 Yes》 with all items .

Figure(8): show that , more than two thirds of elderly (68%) had good rehabilitation practices after domestic fall and less than one third of them (30%) had fair , but minority of them (2%) had poor rehabilitation practice after domestic fall.

Table (8): Illustrate That ,most of the sample had high total impact of domestic falls with all number of falls **especially** the large number(4:6 times),there is a significant relation between number of domestic falls and the total impact of domestic falls on physical health status as p value <0.05(P=0.049).

Table (9): Display that, most of the studied elderly had moderate total impact of domestic falls with number of falls ,**especially** a large number with (4:6 times),there is a high significant relation between number of falls and total impact of domestic falls on social health status of the elderly as p value<0.01=(0.000).

Table (10): Illustrate that. most of the studied elderly had fair total impact of domestic falls

with number of falls especially the large number with (4:6 times), there is high significant relation between number of falls and total impact of domestic falls on psychological and emotional health status (**as p value >0.01**, P=0.000).

scores with number of falls especially with (4:6 times), there is high significant relation between number of domestic falls and total rehabilitation practices (as p value<0.01 ,P=0.001).

Table (11) :Summarize that, most of the studied elderly had good total rehabilitation practice

Table (1) Distribution of studied elderly regarding Socio-Demographic Characteristics(n=100)

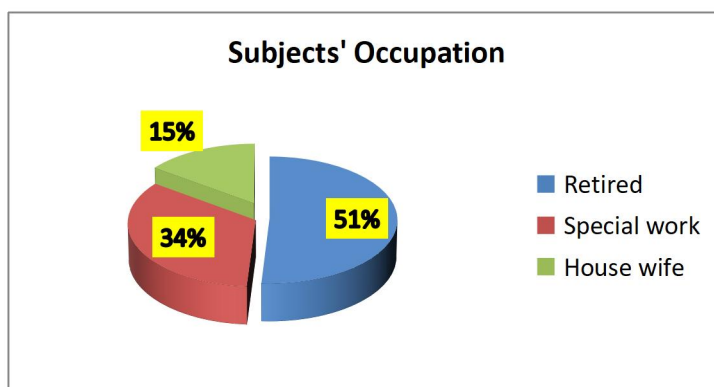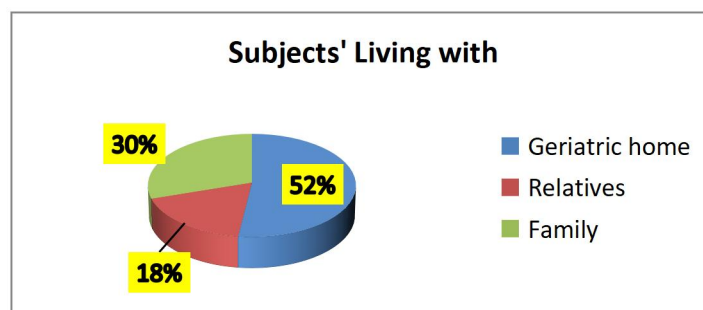| Socio-Demographic Characteristics	(No)	%
Gender		
− Male	61	61
− Female	39	39
Age		
− 60 < 70	24	24
− 70 < 80	54	54
− 80 and more	22	22
Mean±SD	74.65±7.83	
No of Children		
− None	23	23
− 1:3	60	60
− 4:6	14	14
− More than 6	3	3
Education		
− Not read and write	64	64
− Intermediate/secondary	36	36
Weight		
− 60 < 70	40	40
− 70 <80	33	33
− 80 < 90	14	14
− 90 and more	13	13
Mean±SD	68.83±7.49	

Figure (1)
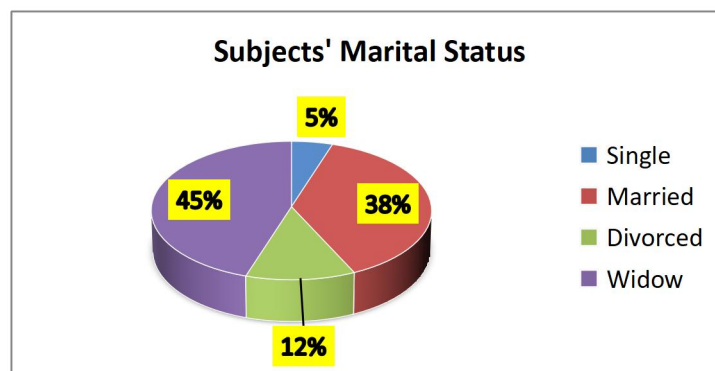
Figure (2)

Figure (3)

Figure (4):
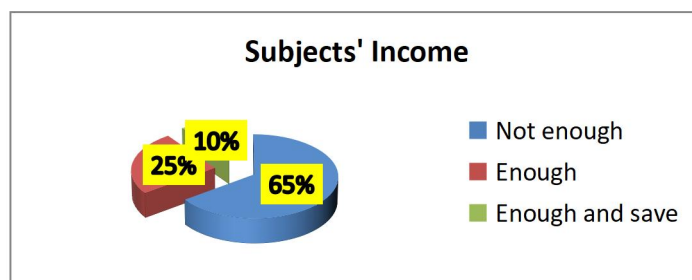
Table (2) Distribution of Studied Elderly 'according to their reasons of domestic Falls (n=100)

Fall Reasons	《 Yes》		《 No》		《 Don't Know》		《 Don't Remember》	
	No.	%	No.	%	No.	%	No.	%
1-Unbalanced walking	82	82	15	15	0	0	3	3
2-Visual impairment (Ex: cataracts, glaucoma)	81	81	16	16	3	3	0	0
3-Lack of awareness	51	51	45	45	4	4	0	0
4-Muscle weakness	79	79	19	19	2	2	0	0
5-Insensitivity and weakness in the feet	90	90	10	10	0	0	0	0
6-Blood pressure diseases	76	76	24	24	0	0	0	0
7-Heart diseases	74	74	26	26	0	0	0	0
8-Osteoporosis diseases (such as Parkinson's disease and arthritis)	87	87	11	11	2	2	0	0
9-Psychiatric illness	24	24	76	76	0	0	0	0
10-Neurological diseases	17	17	83	83	0	0	0	0
11-Many medications (such as	63	63	33	33	2	2	0	0

tranquilizers)							
12-Aging	98	98	2	2	0	0	0	0

Table (3) Observational check list for environmental safety (n=100)

Domestic Fall Reasons	《Yes》		《No》		《Don't Know》		《Don't Care》	
	No.	%	No.	%	No.	%	No.	%
1-The lighting insufficient inside the house	77	77	14	14	9	9	0	0
2-Know the surrounding environment well	70	70	14	14	16	16	0	0
3-Carpets that impede walking inside the house	51	51	37	37	3	3	9	9
4-Floor of the house always dry	22	22	30	30	18	18	30	30
5-The housing floor type ceramic	51	51	27	27	15	15	7	7
6-The bathroom floor safe	39	39	47	47	14	14	0	0
7-Wires and electrical connections that impede movement inside the house	33	33	33	33	31	31	3	3
8-Housing environment tidy	68	68	19	19	7	7	6	6
9-Stairs inside the residence	88	88	8	8	4	4	0	0
10-Stairs a source of falling inside or outside the house	74	74	24	24	2	2	0	0
11-The bed is so high that it exposes you to fall	59	59	37	37	2	2	2	2
12-The furniture of the house unstable causing fall	70	70	28	28	2	2	0	0
13-The furniture of the house constantly changed.	85	85	13	13	2	2	0	0
14-Crowded house furniture hinders movement.	75	75	19	19	6	6	0	0
15-Windows are a source of falling (unsafe)	74	74	24	24	0	0	2	2
16-The balcony wall is a source of fall (not safe)	72	72	26	26	0	0	2	2
17-The furniture of the house so low that it impedes movement	77	77	19	19	4	4	0	0
19-Rushing to answer the phone	31	31	64	64	3	3	2	2
20-Rushing to the bathroom (especially at night)	25	25	70	70	3	3	2	2
21-Distraction by multitasking	28	28	65	65	0	0	7	7
22-Walking while talking and not noticing an environmental hazard (barrier or step)	30	30	65	65	0	0	5	5

Table (4): Distribution of studied elderly according to the Impact of domestic Fall on physical Health Status (n=100)

Items	《Obvious Effect》		《Not Obvious》		《No Effect》		《Don't Know》		《Don't Care》	
	No.	%	No.	%	No.	%	No.	%	No.	%
1-Affect your going to work	63	63	0	0	24	24	4	4	9	9
2-Affect your daily life and	85	85	13	13	2	2	0	0	0	0

|										
homework practices										
3-Cause you disability or distortion	72	72	12	12	16	16	0	0	0	0
4-Affect light activities such as running, lifting light objects, and participating in all kinds of sports	29	29	8	8	0	0	4	4	59	59
5-Impact of the fall on sitting for a long time (unbearable pain)	87	87	13	13	0	0	0	0	0	0
6-Affect your ascent of all stairs	88	88	12	12	0	0	0	0	0	0
7-Affect your ascent a certain number of stairs	75	75	20	20	5	5	0	0	0	0
8-The impact of the fall on bending or kneeling	80	80	20	20	0	0	0	0	0	0
9-Affect walking more than one mile	86	86	14	14	0	0	0	0	0	0
10-Affect walking between street buildings alone	69	69	26	26	5	5	0	0	0	0
11-Affect the daily personal hygiene practice	70	70	25	25	5	5	0	0	0	0
12-Affect showering and getting dressed alone	67	67	25	25	8	8	0	0	0	0
13-The impact of the fall on the level and depth of sleep	78	78	22	22	0	0	0	0	0	0
14-Affect meeting your own needs (groceries or shopping)	74	74	22	22	4	4	0	0	0	0
15-Still feel useful	19	19	0	0	0	0	81	81	0	0
Overall (Mean±SD)	24.37±6.67									
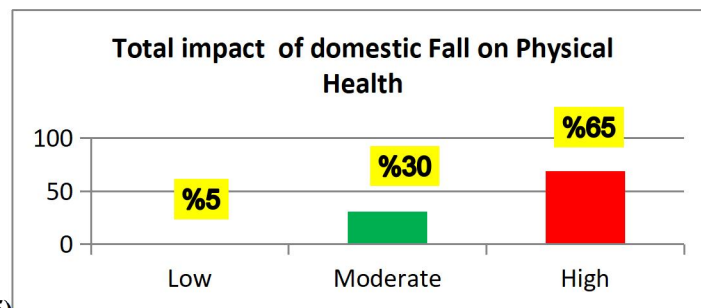
Figure (5)

Table (5): **Distribution of the elderly according to the impact of domestic Fall on Psychological and emotional Status (n=100)**

Items	《 No》		《 Sometimes 》		《 Always 》		《 Don't Remember 》	
	No.	%	No.	%	No.	%	No.	%
1-Found it hard to calm down.	2	2	30	30	12	12	56	56
2-Don't feel any positive feeling at all.	13	13	76	76	8	8	3	3
3-Still feel useful.	87	87	10	10	3	3	0	0
4-Still thinking clearly and objectively	87	87	13	13	0	0	0	0
5-Tend to overreact to situations.	2	2	96	96	2	2	0	0
6-Became worried than before.	2	2	88	88	10	10	0	0
7-Have nothing to look forward to in the future (optimism is lost)	5	5	90	90	5	5	0	0
8-Found it difficult to relax.	0	0	88	88	10	10	2	2

9-Felt sad and restless.	2	2	85	85	13	13	0	0
10-Became intolerant of anything that would stop me from continuing what I was doing.	6	6	90	90	4	4	0	0
11-Felt stressed and broken and a lot of confusion and turmoil.	2	2	94	94	4	4	0	0
12-Became unenthusiastic about anything.	4	4	90	90	6	6	0	0
13-Felt not worth much as a person.	4	4	94	94	2	2	0	0
14-Became a gloomy/depressed person.	10	10	86	86	4	4	0	0
15-Became a person easily upset, provocative and upset (nervous).	7	7	87	87	6	6	0	0
16-Got scared without any good reason and I felt that life had no meaning.	6	6	85	85	9	9	0	0
17-Blame others for their lack of caring	69	69	24	24	7	7	0	0
18-Become hostile to others and yourself?	82	82	18	18	0	0	0	0
19-Became a person unable to cope with problems and developments well.	12	12	88	88	0	0	0	0
20-Sense of reconciliation and self-satisfaction was lost	6	6	94	94	0	0	0	0
21-Lost my joy.	2	2	93	93	5	5	0	0
22-Lost my sense of belonging to my family members.	4	4	93	93	3	3	0	0
23-Lost trust in others	2	2	98	98	0	0	0	0
24-The feeling of safety and security is lost.	4	4	96	96	0	0	0	0
25-The feeling of love for the surroundings is lost.	2	2	98	98	0	0	0	0
26-Still feel comfortable	90	90	10	10	0	0	0	0
27-Still thinking clearly and objectively	93	93	7	7	0	0	0	0
28. Did you feel full of pep?	4	4	94	94	2	2	0	0
29. Have you felt so down in the dumps that nothing could cheer you up?	2	2	90	90	8	8	0	0
30. Have you felt calm and peaceful?	5	5	90	90	5	5	0	0
31. Did you have a lot of energy?	2	2	86	86	10	10	2	2
32. Have you felt downhearted and blue?	2	2	85	85	13	13	0	0
33. Did you feel worn out?	85	85	5	5	5	5	5	5
34. Have you been a happy person?	30	30	55	55	10	10	5	5
35. Did you feel tired?	50	50	35	35	15	15	0	0
Overall (Mean±SD)	61.43±8.44							

Figure (6)

Total Impact of domestic falls on elderly psychological and emotional status
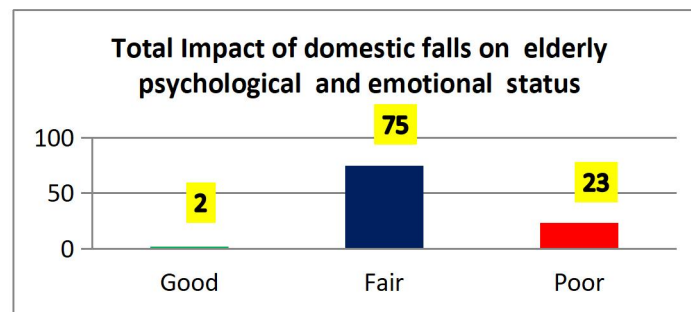
Table (6): Distribution of the elderly according to the impact of domestic Fall on their Social Status (n=100)

Items	(Yes)		(No)		(Sometimes)		(Don't Care)	
	No.	%	No.	%	No.	%	No.	%
1-Lost the principle of self-affirmation in the professional environment	56	56	20	20	10	10	14	14

Item	No.	%	No.	%	No.	%	No.	%
2-Lost the principle of self-affirmation in the family environment	84	84	4	4	9	9	3	3
3-Difficult to work or take the initiative to do work	76	76	5	5	17	17	2	2
4-Felt lonely, empty, and distant from others after the fall	48	48	16	16	36	36	0	0
5-Find help from others and not alienate you and the interest is still present	39	39	16	16	45	45	0	0
6-Accept the new health condition and adapt to it.	47	47	6	6	47	47	0	0
7-Surrendered to isolation and lack of social participation	37	37	34	34	29	29	0	0
8-Still feel the existence of mutual trust and respect with others?	36	36	8	8	56	56	0	0
9-Social circle gradually narrowed	41	41	24	24	35	35	0	0
10-Need for money increased as a result of your health condition	71	71	7	7	22	22	0	0
11-Found material and moral support from others	58	58	11	11	41	41	0	0
12-Continue your practice of social activities for the family, relatives and society	49	49	23	23	23	23	5	5

Continuo table (6)

Items	《 Yes》		《 No》		《 Sometimes 》		《 Don't Care 》	
	No.	%	No.	%	No.	%	No.	%
13-If I wanted to go on a trip for a day, I would have a hard time finding someone to go with me.	55	55	20	20	15	15	10	10
14-I feel that there is no one I can share my most private worries and fears with.	66	66	24	24	10	10	0	0
15-If I were sick, I could easily find someone to help me with my daily chores.	35	35	40	40	15	15	10	10
16-There is someone I can turn to for advice about handling problems with my family.	20	20	50	50	30	30	0	0
17-If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.	55	55	30	30	15	15	0	0
18-When I need suggestions on how to deal with a personal problem, I know someone I can turn to.	30	30	60	60	5	5	5	5
19-I don't often get invited to do things with others.	63	63	27	27	5	5	5	5
20-If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).	49	49	21	21	16	16	4	4
21-If I wanted to have lunch with someone, I could easily find someone to join me.	25	25	54	54	21	21	0	0
22-If I was stranded 10 miles from home, there is someone I could call who could come and get me.	60	60	30	30	5	5	5	5
23-If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.	40	40	45	45	10	10	5	5
24-If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.	35	35	55	55	7	7	3	3
25-If I wanted to Prepare main meals and Washing up after meals I could easily find someone to help me.	34	34	56	56	10	10	0	0
26-If I wanted to Travel outing/car ride I could easily find someone to go with me.	50	50	41	41	9	9	0	0
27-If I wanted to Read a book, I could easily find someone who	60	60	32	32	8	8	0	0

would help me .	
Overall (Mean±SD)	39.54±6.18

Figure (7):

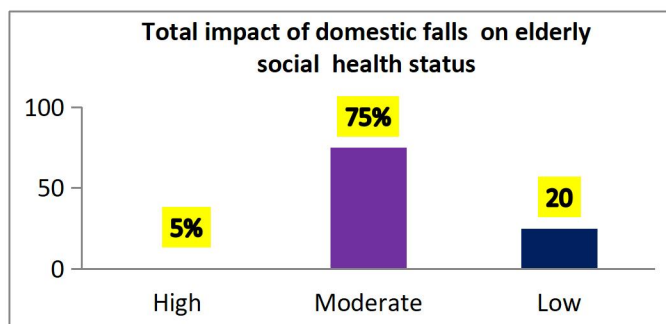Total impact of domestic falls on elderly social health status

Table (7) Distribution of the elderly according to their rehabilitation practices after domestic falls (n=100)

Rehabilitation Practices	〔 Yes〕		〔 No〕		〔 Don't Care〕	
	No.	%	No.	%	No.	%
1-Use a cane or walker to help you walk safely	73	73	22	22	5	5
2-Wear appropriate and non-slippery shoes	90	90	2	2	8	8
3-The tiles and floors been dried frequently	72	72	0	0	28	28
4-Practice physical therapy to maintain flexibility and fitness	52	52	17	17	31	31
5-Maintain periodic examination on a regular basis	78	78	6	6	16	16
6-Keep a regular vision check	78	78	3	3	19	19
7-Keep a regular hearing check	73	73	8	8	19	19
8-Keep checking sensation regularly	77	77	3	3	20	20
9-Keep taking medication on time	91	91	0	0	9	9
10-The environment around you improved for the better	96	96	0	0	4	4
11-Any movement obstacles such as carpets have been removed	98	98	0	0	2	2
12-The lighting in the house improved	100	100	0	0	0	0
13-The furniture arranged around you	98	98	0	0	2	2
14-The number of pieces of furniture been reduced to facilitate your movement?	97	97	0	0	3	3
15-Your eating habits been changed to reduce weight	97	97	0	0	3	3
16-There grab bars installed near toilets and sinks	92	92	4	4	4	4
17-There bars installed on the stairs inside the house	92	92	6	6	2	2
Overall (Mean±SD)	21.29±4.37					

Figure (8):

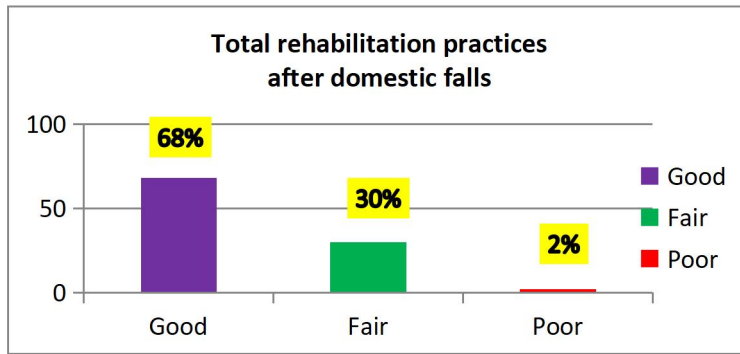**Total rehabilitation practices after domestic falls**

Table (8) Relation between Numbers of Fall and the Total impact of domestic falls on Physical Health among Studied Elderly (n=100).

Items	Total impact of domestic falls on Physical Health Scores						χ²	P-value
	((High))		((Moderate))		((Low))			
	No.	%	No.	%	No.	%		
Number of Falls								
− 1:3	8	8	2	2	2	2	9.555	0.049*
− 4:6	32	32	20	20	0	0		
− 6:9	25	25	8	8	3	3		

Table (9): Relation between Numbers of Fall and the Total impact of domestic falls on Social Health among Studied Elderly (n=100).

Items	Total impact of domestic falls on Social Health Scores						χ²	P-value
	((High))		((Moderate))		((Low))			
	No.	%	No.	%	No.	%		
Number of Falls								
− 1:3	0	0	0	0	12	12	58.71	0.000**
− 4:6	1	1	47	47	4	4		
− 6:9	4	4	28	28	4	4		

Table (10): Relation between Numbers of Fall and the Total impact of domestic falls on Psychological and emotional Health among Studied Elderly (n=100

Items	Total impact of domestic falls on Psychological and emotional Health Scores						χ²	P-value
	((Good))		((Fair))		((Poor))			
	No.	%	No.	%	No.	%		
Number of Falls								
− 1:3	1	1	0	0	11	11	39.38	0.000**
− 4:6	1	1	47	47	4	4		
− 6:9	0	0	28	28	8	8		

Table (11): Relation between Numbers of domestic fall and the Total Levels of Rehabilitation Practices among Studied Elderly (n=100).

	Total Rehabilitation practices Scores		

Items	《 Good》		《 Fair》		《 Poor》		χ^2	P-value
	No.	%	No.	%	No.	%		
Number of Falls								
−　1:3	12	12	0	0	0	0	18.140	0.001**
−　4:6	40	40	12	12	0	0		
−　6:9	16	16	18	18	2	2		

Discussion

Domestic accidents are a worldwide public health issue A domestic falls is an incident that happens at home or in its immediate vicinity and, more commonly, all incidents not related to travel, automobiles, and sports. Can an accident in the home inflict detrimental effects on the physical and mental health of the elderly, loss in earning ability and efficiency. The elderly are especially prone to domestic falls. In elderly , the frequency of injuries is different due to vision failure, slow movements, osteoporosis, and osteoarthritis Most falls will result in a bruise or scratch, but elderly people falling will cause even more severe injuries like hip fractures, head trauma, or even death **(Mendhe et al., 2020)**

Globally, falls are a major public health problem. An estimated 684,000 fatal falls occur each year, making it the second leading cause of unintentional injury death after road traffic injuries. Over 80% of fall-related fatalities occur in low- and middle-income countries. Approximately 37.3 million falls severe enough to require medical attention occur each year. Globally, falls are responsible for over 38 million DALYs (disability-adjusted life years) lost each year and result in more years lived with disability **(WHO, 2021).**

So, the current study aimed to assess the impact of domestic falls on the general health status of elderly patients in Beni suef governorate. Through achieving the following aims, assess the impact of domestic falls on physical health status of elderly patients, their psychological and emotional health, social health status and the environmental safety of elderly.

Part I Socio-demographic characteristics of the studied Elderly

The current study indicates that about two thirds of studied elderly were male   This result was **contradicted with** the study done by **Wang et al., (2022)** about the incidence of falls and related factors among Chinese elderly community residents in six provinces, which cleared that; there were (62.0%)of

the studied elderly were males., more than half of them were in the age category (70 < 80 years) with mean age (74.65±7.83) This result was **contradicted by** the study by **Wang et al. (2022)** showed that more than one-third(43.6%) of participants aged 70 years old or above.

From the investigator point of view, this result might be due tothe current life expectancy for Egypt in 2024 being 72.69 years, a 0.21% increase from 2023 according to (**WHO2023).**

More than one-third of them weighted (60 <70   kg) with a mean weight (68.83±7.49)The current study result was **contradicted by** a study done by **Wang et al.(2023)**who studied the relationship between physical activity and perceptions of aging from the perspective of healthy aging among older people with frailty with chronic disease in turkey : a cross-sectional study concluded that; more than one third(43%) of older adults were overweight.

From the investigator point of view, this result might be due to older people not being able to access or afford healthy foods containing important nutrients as well as decreased energy expenditure play an important role in increasing elder weight.

The current study result displayed that nearly half of the elderly were widowed, and more than one-third of them were married.**.** This result was **supported by** a study done by **Ismail et al.,(2018),** who studied the risk of falls and the effect of a health education program in the prevention of falls among the elderly in geriatric homes in Cairo, Egypt and cleared that nearly half (49%) of the studied sample were divorced or widowed.

The current study results illustrated that more than half of the elderly were retired.**.** This result was **supported by** a study by **Mohammed et al., (2018)** who studied falls among the elderly in rural areas of the Sharkia Governorate, Egypt and found that more than half of the participants were retired.

From the investigator point of view, this result might be due to the retirement age in Egypt is

currently 60 years, or higher if the employer provides for a higher retirement age in its internal regulations or employment contracts

Our study results displayed that more than half of the elderly were living in geriatric homes. . These results **agreed** with **Gamage et al., (2018)** who studied Knowledge and perception of falls among community-dwelling elderly: A study from southern Sri Lanka and showed that more than two-thirds of the elderly lived in geriatric homes

Our study illustrated that about two thirds of elderly of them had not enough income . This finding **in the same line** with **Elsamahyet al. (2019),** who studied risk factors for falls among the elderly in a Rural Community in El-Monofya Governorate and stated that more than two thirds ,(67%) of the elderly reported that income was not enough.

From the investigator point of view, this result might be due to elderly people reduce their working hours or stop working because of retirement options not have enough source of income .

Part II Reasons for domestic falls among elderly

Most of our study summarized that the majority of studied elderly reported **yes** with reasons for fall were: unbalanced walking, visual impairment, muscle weakness, insensitivity and weakness in the feet, blood pressure diseases, heart diseases, osteoporosis disease and aging .

Our current study result was **in the same line** with **Mahmoodabad etal., (2018)** who studied the effect of the living environment on falls among the elderly in Urmiaand concluded that the major incidence of falling in the elderly increased due to chronic diseases, visual impairment, cognitive impairment, physical weakness, motion, and other factors which are confirmed in various.

In the same line, **Soomar&Dhalla,(2023)** studied Injuries and outcomes resulting from falls in elderly patients presenting to the Emergency Department of a tertiary care hospital–a cohort study in turkey and observed that the most common reasons of falls were cardiovascular (93%), followed by endocrinological (79%), and cerebrovascular (51%). It was found in the literature that elderly people with multiple comorbidities have higher chances of falling, and In this study, falls were found to increase with age in patients with comorbidity, and almost 54% of individuals were between 60 and 80 years old.

From the investigator point of view, normal changes and deficit of older adult have agreat impact in all organs functions were lead to high exposure to falls **for example** : older adults may take food with a low dietary intake of calcium and vitamin D, which predisposes them to falls and, therefore, fractures. Dietary calcium and vitamin D intake improves bone health among persons with low bone density and reduces the risk of osteoporosis and falling.

our current study summarized that , nearly the most mentioned that the lighting is insufficient inside the house and the environmental safety of the house are the reason for falls .This result agreement with **Lytras et al., (2022)**who studied the recording of Falls in Elderly Fallers in Northern Greece and Evaluation of Aging Health-Related Factors and Environmental Safety Associated with Falls in Iran: A Cross-Sectional Study and reported that the majority (80%) of older adults stated that poor lighting conditions or vision problems played a very important role related to environmental safety .

In the same line , **Mohammed, A. E., l., (2018)**mentioned that improper lighting increases the chances of falling the elderly about 1.4 times.

Most of elderly three quarters showed stairs inside the residence and stairs as a source of falling inside or outside the house elderly more than half had from four to less than six times of domestic fall.

This finding, **in agreement with Chen et al. (2019),**who study "Aging and Spinal Cord Injury: External Causes of Injury and Implications for Prevention," in Iran and revealed that ,falls on the same level, from stairs and steps, were the most common mechanisms of falls in the elderly group.

In our study , more than one-third reported that the bathroom floor was safe ,and one-quarter rushed to the bathroom (especially at night). This finding was **supported** by **Ismailet al., (2018)** who studied the risk of falls and the effect of a health education program in the prevention of falls among the Elderly in Geriatric Homes in Cairo, Egypt and reported that concerning the most important environmental risk factors of falls in geriatric homes, where (34%) of elderly participants reported slippery bathroom floors, (41.7%) reported that the light was hard to reach, (40.0%) reported broken or uneven steps, while (37.5%) reported throwing rugs on the floor.

In the same line Mohamed et al., (2018) in their study about falls among the elderly in rural

areas of the Sharkia Governorate, Egypt, agree our study as he reported that more than one third of falls occurred at home, with the bathroom being the most common location. The presence of loose rugs, slippery floors, inadequate lighting, and lack of handrails may be contributing factors.

From the investigator point of view, the lower level of safety of the bath/toilet can be attributed to the majority of the studied sample had not enough income to repair the furniture, the bathrooms, and the stairs, which may be a source of falls in this age group.

Part III   Assessment of the impact of domestic falls on physical, social, and psychological and emotional health of the elderly

Most of our study of the studied elderly reported that falling had an obvious impact on their going to work and performing daily life and homework practices . About three-quarters of them reported that falls caused them obvious disability and distortion.The majority of them also reported that falls had an obvious effect on sitting for a long time (unbearable pain), the ascent of all stairs, ascent of a certain number of stairs, bending or kneeling, walking more than one mile, walking between street buildings alone, the daily personal hygiene practice, showering and getting dressed alone, level and depth of sleep and meeting their own needs, e.g., groceries or shopping

Our current study result was **supported** by**Adam et al., (2024)** about the impact of falls on activities of daily living in older adults in Iraq : A retrospective cohort analysis and found that older adults who experience falls have a significantly heightened risk, 86% greater, of post-fall ADL impairment, such as walking around the home, transferring to/from a bed or chair (16%)followed by walking around the home 9% and for many older adults, this impairment persists for a prolonged period.

In the same line the study by **Ellmers et al., (2022)** who study Protective or harmful? A qualitative exploration of older people's perceptions of worries about falling in Egypt and concluded that most of older adults with falls do not engage in daily activities for fear of falling again, increasing their anxiety and risk of falling,

Our results **in the same line** with **Okoye , (2021)** who study Falls and fear of falling among older adults in an assisted-living facility: a qualitative and foundational study for intervention development

in a developing country in turkey and Cleared that nearly most of older adults who fall frequently experience physical injuries and a decline in their physical and mental health, leading to fear and a loss of confidence in performing daily activities.

Furthermore, in the study by **Elsamahy et al. (2019),** who cleared that the majority (86%) of the elderly are independent personal hygiene, using the bathroom, and wearing clothes respectively. Also, around (14%) of the elderly are independent in food preparation, moving, and transportation.

In the same line, **Lee et al., (2019)** who study the association between recent falls and changes in outdoor environments near community-dwelling older adults' homes over time in Iraq : Findings from the NHATS Study. Concluded that the physical and psychological impacts of experiencing a fall can lead to reductions in daily mobility, decreased physical activity, social isolation, and reduced confidence among older adults, with ongoing implications for wellbeing and quality of life.

From the investigator point of view, falls can lead to injuries, fear of falling, and a decline in mobility, which in turn can affect the individual's ability to engage in work and daily activities.

More than two-thirds of the elderly had a high total impact of domestic falls on their physical health status, and nearly one-third had a moderate total impact on their physical health**.**

This finding **agreement with** the study done by **Jónsdóttir&Ruthig, (2021)**on a longitudinal study of the negative impact of falls on health, well-being, and survival in later life: the protective role of perceived control in turkey and concluded that nearly two third of older adults who suffered a fall had poorer health and well-being two years later compared to those who did not suffer a fall.

Furthermore, a study done by **Kamińska et al., (2019)** analyzed the fall risk factors in the community-dwelling elderly depending on their physical function, cognitive status, and symptoms of depression in Egypt and mentioned that risk factors associated with falls in older adults, including impaired balance, mobility, and sensorimotor function, as well as psychosocial and medical conditions.

From the investigator point of view falls can have a significant impact on the physical health of the elderly. They are associated with high injury

rates, high medical costs, and a negative impact on quality of life.

In our present study, More than three quarters of them reported that sometimes they don't feel any positive feeling at all. The majority of them reported that didn't still feel useful and thought clearly and objectively. Also, the majority of studied elderly reported that sometimes they tend to overreact to situations, became worried than before, have nothing to look forward to in the future (optimism is lost), found it difficult to relax, felt sad and restless, became intolerant of anything that would stop them from continuing what they were doing, felt stressed and broken and a lot of confusion and turmoil, became unenthusiastic about anything, felt not worth much as a person, became a gloomy /depressed person, became a person easily upset, provocative and upset (nervous) and got scared without any good reason and felt that life had no meaning, became a person unable to cope with problems and developments well, sense of reconciliation and self-satisfaction was lost, lost their joy, lost their sense of belonging to family members, lost trust in others, the feeling of safety and security is lost and the feeling of love for the surroundings is lost.

In the same line with **Kim and Park, (2023)**analyzed how general characteristics, emotional labor, empathy ability, and wisdom affect the psychological well-being of female caregivers in turkey and reported that (74%) of elderly individuals may experience despondency due to a perceived lack of usefulness, which can lead to lowered self-esteem and severe depression.

Furthermore, **Lytras, , (2022)** determined influencing factors of emotional well-being of the elderly in rural areas of Shaanxi province in Lebanon and reported that the emotional well-being of the elderly can be improved through measures such as promoting positive social interactions, engaging in activities that provide a sense of purpose, and ensuring access to appropriate healthcare and social support services.

From the investigator point of view, psychological and emotional status of the elderly can vary widely, and factors such as health, social connections, and life events can influence their emotional well-being. Healthcare providers and caregivers can support the emotional health of the elderly through attentive and empathetic care, social engagement, and access to mental health resources.

The present study findings, three quarters the studied elderly had fair total impact of domestic falls on their psychological health**.**

This finding in the same line with the study with **Dhar (2022)**, determined the prevalence of fear of falling among the geriatric population and compare various demographic and clinical parameters in elderly patients with and without fear of falling in turkey and reported that(73%) falls-related injuries can add to the morbidity and economic burden and have a significant negative impact on the psychological health and quality of life of the elderly.

In the same line,**Philippe et al., (2022)**tested the effects of a short multicomponent physical exercise program on fall risk and fear of falling in Iran; and analyzed the relationship between fall risk and fear of falling, showed that (71%)of elderly with falls can result in fear of falling, decreased autonomy, increased pain, and injuries, which in turn can lead to psychological problems such as depression and anxiety.

Our present study showed that, the majority of the studied elderly reported that they lost the principle of self-affirmation in the professional environment, the principle of self-affirmation in the family environment, difficulty working or taking the initiative to do work, felt lonely, empty, and distant from others after the fall, accept the new health condition and adapt to it, need for money increased as a result of their health condition, found material and moral support from others and continue their practice of social activities for the family, relatives, and society .

Our result **was agreed with Petrinec et al., (2020)** who studied health-related quality of life of older women religious in Lebanon and founded negative influence of frailty, identified fear of falling as an independent predictor of social functioning.

In the same line ,Hajeket al., (2019) studied the association of falls with loneliness and social exclusion in turkey and found that those reporting a fall in the previous 12 months had higher loneliness scores and social exclusion scores.

Our present study **Similar to** , **Pin Spini, (2019)**studied the impact of falling on social participation and social support trajectories in a middle-aged and elderly European sample and Found that in their cohort of 16 583 participants, those who were exposed to fall showed decreased social participation after falling

From the investigator point of view, the loss of the principle of self-affirmation in the professional environment among the elderly might be attributed to the impact of health changes on their cognition and behavior

Our present study findings proved that three-quarters of them had moderate total impact of domestic falls on social health status**.**

Current study results were **consistent with Vanden et al., (2020)**who studied associations between the measures of physical function, risk of falls, and the quality of life in hemodialysis patients in Iran and reported an association between the risk of falls and participation in social roles and activities in 154 older adult hemodialysis patients.

Our Current study results **disagreed** with **Petersen, (2020)** who studied the link between falls, social isolation, and loneliness in Iraq: a systematic review showed no statistically significant relationship between fear of falling and social isolation in older adults.

From the investigator point of view, the consequences of falls can lead to a reduction in social activities and interactions, potentially causing social isolation and a decline in overall social health

Part   IV Assessment of the impact of domestic falls on rehabilitation practices

Concerning the elderly practices after domestic falls, the majority of studied elderly reported that they used a cane or walker to help them walk safely, wore appropriate and non-slippery shoes, the tiles and floors have been dried frequently, practiced physical therapy to maintain flexibility and fitness, maintain periodic examination on a regular basis, keep a regular vision check, keep a regular hearing check, keep checking sensation regularly, keep taking medication on time, the environment around them improved for the better, any movement obstacles such as carpets have been removed, The lighting in the house improved, the furniture arranged around them, the number of pieces of the furniture been reduced to facilitate their movement, their eating habits been changed to reduce weight, grab bars installed near toilets and sinks, and bars installed on the stairs inside the house**.**

Our Current study results were **supported by Giovannini et al., (2022).**Who studied falls among older adults: Screening, identification, rehabilitation, and management in Iraq and reported that physical exercise, cognitive behavioral therapy, occupational therapy, prescription of psychoactive drugs, prescription of visual or hearing aids, and podiatric interventions are examples of single-intervention strategies of rehabilitation.

From the investigator point of view, using assistive devices and wearing appropriate footwear are effective strategies for preventing falls and promoting the physical health of the elderly

More than two-thirds of the elderly had good rehabilitation practices after domestic falls, and nearly one-third had fair rehabilitation practices**.**

Our present result **disagrees with Giovannini et al., (2020)**who mentioned that in older adult patients, the rehabilitation outcome is generally worse when compared with a younger subject in turkey. This is due to several reasons, such as a reduced functional, physical, and cognitive reserve, as well as the higher prevalence of multimorbidity and polypharmacotherapy.

From the investigator point of view, rehabilitation practices for the elderly after falls are considered high due to the significant morbidity and increased risk of harm associated with such incidents.

Part V Relation between study variables

Our present   result cleared that , large number from the sample had high total impact of domestic falls on physical health score with all items especially with [the male ,age (70>80),widow status, not read and write ,and weight(60<70)],according to Relationship between Socio-demographic characteristics and total impact of domestic falls on Physical Health of Studied Elderly, Our study clear present high Significant study relation with marital status and education as p value =(0.000**),and had a significant relation with age as p value =(0.011),while no significant with the other items as p value =(p>0.05).

Our study **is agrees with** the study done by **Todd et al., (2020**) who examined the relationship between physical falls and the fear of falling among people ages 60 and up in Iran and found that there was a significant, strong positive correlation between age and fear of falling and cane use and fear of falling.

In the same line ,Moussa et al., (2023) conducted a study that assess the elderly health promotion behaviors at geriatric homes in Iraq and found that age, socioeconomic status, male gender and chronic disease were associated with health

promotion behaviors in elderly individuals suffering from falls.

From the investigator point of view, With the increasing age of older people, they experience chronic illnesses which may require using drugs. Also, they experience muscle weakness and pain due to arthritis. These factors may affect on physical health status for elderly , making the elderly more confined to their home because of the fear of falls that they experience due to their unbalanced gait.

Our current study illustrated That, most number of the studied elderly had moderate score with all socio demographic items especially large number with [the male ,age(70<80),widow status ,had from (1:3)children ,read and write ,and occupational retired],there is a high significant statistical relation between socio demographic characteristics and total impact of domestic falls on elderly social health status as p value >0.01,and is a significant relation with gender and weight as p value >0.05=(0.024 and 0.023),while ,no significant statistical relation with education as p value >0.05 =(0.288).

Our study agrees with Daely et al., (2022)who study social institution in Jakarta, Indonesia, and investigated the impacts of age and marital status on the quality of life of the elderly in an elderly social institution in Iraq, revealed a significant difference in the mean quality of life of the elderly with falls especially in their level of education, male and retired elderly.

From the investigator point of view ,the older ones with an increasing number of children may experience higher impact of falls on their social status than the older ones with no or one child due to the children's social support and needs. The adults may be involved in social affairs and problems of their children.

Our current study displayed that, most of the studied elderly had fair with all social demographic items especially large with [male ,age(70<80),widow status ,no read and write ,special work ,and weight (60:80)].there is high significant statistical relation between total impact of domestic falls on Psychological and emotional health and their age, marital 888888808t of the sample had high total impact of domestic falls with all number of domestic falls especially the large number(4:6 times),there is a significant relation between number of domestic falls and the total impact of domestic falls on   physical health status as p value <0.05(P=0.049).

Our results in the same line with Moussa et al., (2023) who founded that a high significant relation between number of falls and effect of falls on physical health status for old age resident geriatric homes with large falls numbers.

Our current study displayed that, most of the studied elderly had moderate total impact of domestic falls with number of falls ,especially a large number with (4:6 times),there is a high significant relation between number of falls and total impact of domestic falls on social health status of the elderly as p value<0.01=(0.000).

Our result in agreement with the study done by **Montgomery et al., (2019)**who found significant relation between falls times and impact of falls on social status of the elderly

From the investigator point of view, this is cleared that increase times of falls or recurrent falls lead to obvious impact on their social health such as derivate them from social participation due to their fear from falls in any place .

Our study illustrated that. most of the studied elderly had fair total impact of domestic falls with number of falls especially the large number with (4:6 times), there is high significant relation between number of falls and total impact of domestic falls on psychological and emotional health status (**as p value >0.01**, P=0.000)**.**

Our **result is agrees** with **Daely et al., (2021),**who found a significant relation between falls and impact of c falls on psychological and emotional health status**.**

Our **result is disagrees** with **Giovannini et al., (2020) ,**who found there is non significant relation between falls times and impact of falls on elderly psychological condition

Our current study summarized that, most of the studied elderly had good total rehabilitation practice scores with number of domestic falls especially with (4:6 times), there is high significant relation between number of domestic falls and total rehabilitation practices (as p value<0.01, P=0.001)**.**

Our results **in the same line with Montgomery et al., (2019)**who found that high significant relation between number of falls and total rehabilitation practices after falls**.**

Conclusion

The present study conducted to assess the impact of domestic falls on the physical ,psychological and social health of elderly our study detect the following . About two third of the studied elderly were male ,(not read and write) ,hadn't enough income and had from one to less than three years since last domestic falls ,More than half of them were retired ,living at geriatric homes , furthermore had from less than six times of domestic falls and more than one third from six to nine time . According to physical health status two third of the studied elderly had high impact of domestic falls ,with the psychological and emotional health status three quarter of them had fair impact ,while with social health status one quarter of them had moderate impact . Nearly one third of the sample had fair and poor rehabilitation practice of domestic falls . Present statistical significant relation between impact of domestic falls on physical health scores with age ,marital status and education .And present statistical significant relation between total impact of domestic falls on social health score with all social demographic characteristics items except with education. Found Present statistical significant between total impact of domestic falls on psychological and emotional health scores with all social demographics characteristics items except the gender and education . Present statistical significant relation between the total impact of domestic falls on physical , social ,psychological and emotional health scores and with the total rehabilitation practice score

Recommendations

Based on the result of the current study , the investigator recommended the following :

1. Continuous health education for elderly and care giver about the medical δ environmental reasons of falls ,risk factors of falls ,measures to prevent domestic falls , how to overcome and avoid fallings consequences .
2. Health education \teach to elderly who had a falling history how to cop up with their status , encourage elderly to participate in social practices and don't be isolated.
3. Teach the elderly to take care of their steps and keep environmental safety to avoid recurrent falling.
4. Using different health education methods such as videos , ,pictures ,tv , internet ,face book , books and magazines .

5. Ask the government to provide an available rehabilitation devices to support the elderly persons with disability .
6. Replication of the study on longer sample to be able to generalize the result of study .
7. **Further researches**
   More studies in this field are needed with large sample from different geographic area to allow great representation and generalization of the result .

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