



Research Article

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Effectiveness of pedagogic program regarding prevention of falls among senior citizens

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Abstract

Background of the Study: Ageing is the process of becoming older. It is a gradual, continuous process of natural change that begins in early adulthood. During early middle age, many bodily functions begin to gradually decline. Both physiological and psychological changes can occur in the senior citizens. Falls often signal the 'beginning of the end' of an older persons life. Multiple fall risk factor have been identified in community dwelling elderly, among them specific medical conditions, balance and gait disturbances, history of falls, visual impairment, advanced age, female gender, pain, cognitive decline, and environmental factors. **Aim and objectives:** The aim of the study is to assess the effectiveness of pedagogic program regarding the prevention of falls among senior citizens at selected old age home, Mysuru. **Methods:** Research design adopted for the study is one group pretest post test design. Non probability purposive sampling technique is used to select the 30 senior citizens. Knowledge on prevention of falls were assessed through Structured Knowledge Questionnaire and Pedagogic Program was conducted as an intervention. Post test was conducted after 7 days. **Results:** The data reveals that in pre test 63.4%(19) senior citizens have good knowledge and 36.6%(11) have poor knowledge on prevention of falls whereas in post test 83.4%(25) senior citizens have good knowledge and 16.6%(5) senior citizens have poor knowledge on prevention of falls. Thus there was a significance difference in the mean pre test and post test knowledge score on prevention of falls among senior citizens. **Conclusion:** Pedagogic program was effective in increasing the knowledge on prevention of falls among senior citizens and the study suggested to organize falls prevention awareness program to all senior citizens to improve their quality of life.

Keywords: Prevention of falls, Senior citizens, Pedagogic program.

INTRODUCTION

Everyone is familiar with ageing. Ageing is one of the most multifactorial, complex process of human beings and understanding it has been a challenge since a long time [1]. The term fall means different things to different people. For some people, a fall is any unintentional trip or stumble that cause them to fall against on object or fall to the ground. Falls often signal the 'beginning of the end' of an older person's life [2].

Falls are a common and serious cause of morbidity and mortality among the elderly. Compared to other disabling conditions, falls are associated with greater disability and increased likelihood of hospitalization and admission to long term care facilities [3]. Fear of falling is defined as a geriatric syndrome that may contribute to further functional decline in an already frail patient. When people experiences something unpleasant, their natural response is an aversion to that experience. People may begin to limit their activities after a fall or as they become weaker and less agile with increasing age [4].

The elderly are at increased risk of death or serious injury when experiencing falls, especially with the advancing age. In the united states, about 20-30% of elderly people who fall suffer moderate to severe injuries such as bruises, hip fractures or head trauma. The magnitude of the risk may be due, at least in part to the physical, sensory and cognitive impairment associated with ageing as well as to the difficulty in adapting the environment to the needs of elderly population [3].

Multiple fall risk factor has been identified in community dwelling elderly, among them specific medical conditions, balance and gait disturbances, history of falls, visual impairment, advanced age, female gender, pain, cognitive decline, and environmental factors [5].

According to international archives of medicine, A quantitative research study was conducted regarding the nursing care for prevention of falls in the elderly at brazil. The data had taken from 10 selected studies. The thematic analysis resulted in three categories; health education as strategy for preventing falls in the elderly, identification of risk factors for the occurrence of falls as a preventing strategy and use

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of care technology for the preventing falls in the elderly as a strategy. The study findings showed that health education is an important mechanism of nursing professionals in preventing falls in elderly [6].

During clinical posting, investigators got posted in orthopedic ward. There investigators came across many senior citizens who got admitted to the hospital with falls. Investigators came to know that they found difficulty to meet their daily activities and they depend on others for their completion of daily works. Thus investigators came to be a part of providing interventional care to the senior citizen. Investigators found that education regarding the prevention and management of falls is necessary in the senior citizen.

Statement of problem

A study to assess the effectiveness of pedagogic program regarding prevention falls among senior citizens at selected old age home, Mysuru.

Objectives

1. To determine the risk for falls among senior citizens
2. To assess the knowledge on prevention of falls among senior citizens before and after administration of pedagogic program.
3. To determine the effectiveness of pedagogic program among senior citizens.
4. To determine the association between the knowledge levels of senior citizens regarding prevention of falls with their selected personal variables.

Hypothesis

H₁: There will be a significant difference between pretest and posttest knowledge score regarding prevention of falls among senior citizens.

H₂: There will be a significant association between the pretest and posttest knowledge score regarding prevention among senior citizen.

Assumptions

1. Senior citizens are at risk of falls.
2. Senior citizens may have some knowledge regarding prevention of falls.
3. Awareness can increase the knowledge regarding prevention of falls and its management among senior citizens.

RESEARCH DESIGN

Table 1: Schematic Representation of Research Design

Group	Day 1	Intervention	Day 7
Experimental group	Pre test to assess the knowledge on prevention of fall risk among senior citizens.	Pedagogic program on prevention of falls.	Post test to assess the knowledge on prevention of falls among senior citizens.

Delimitations

1. The study is delimited to senior citizens of selected old age homes, Mysuru only.
2. The study is delimited to assess the knowledge on prevention of falls by Structured knowledge questionnaire

The present study conducted in VTCC old age home in Mysuru city. In the present study the population comprises of senior citizens. The sample of the present study comprises of senior citizens residing at selected old age homes at Mysuru. In the present study the sample size is 30 senior citizens. Non probability purposive sampling technique was used for selecting 30 senior citizens. The samples selected keeping in

view the following pre determined criteria. Inclusion criteria were senior citizens those who are residing in old age home and available at the time of data collection. Exclusion criteria included in the study is senior citizens who are in unconscious stage. Based on the review of literature the following tools are developed by the investigator, data was collected by using following tools:

Section I: Personal Proforma used to assess the personal variables.

Section II: Morse Fall Risk Assessment tool

Section III: Knowledge questionnaire on prevention of falls among senior citizens.

Section IV: Pedagogic program on prevention of falls among senior citizens.

RESULTS

1. Findings related to selected personal variables of senior citizens

Data related to the age of patients reveals that majority 50% samples were in the age group of above 60 years. The similar findings can be retrieved from another study showed senior citizens were above 70 years. Majority 53.6% samples were female. The similar findings can be retrieved from another study showed that males had a lower prevalence (46.6%) compared to females (53.6%) [7]. Majority 73.3% samples belonged to Hindu religion, all the subjects were married and 60% samples were belonged to joint family. Majority 96.6% samples were in good hygienic condition. 50% samples were having previous history of falls. 63.4% of samples have attended education classes in prevention of falls. Majority 43.4% samples have less than 3 years of stay in old age home. 50% samples need assistance for his/her activities in daily routine.

2. Findings related to Morse Fall risk assessment tool.

Table 2: Frequency and percentage distribution of senior citizens according to the Morse Fall Risk Assessment Tool. (n=30)

S. No.	Item	Frequency (f)	Percentage (%)
1.	History of falls (Immediate or within 3 months)		
	a) No	14	46.6
	b) Yes	16	53.4
2.	Secondary diagnosis (>2 medical diagnosis)		
	a) No	4	13.4
	b) Yes	26	86.6
3.	Ambulatory aid		
	a) None/ bed rest / nurse asst.	16	53.4
	b) Crutchers/cane/walkers	14	46.6
	c) Furniture/others		
4.	Intravenous Therapy		
	a) No	30	100
	b) Yes		
5.	Gait/ transferring		
	a) Normal/ bedrest /wheelchair	12	40
	b) Weak	17	56.6
	c) Impaired	1	3.4
6.	Mental status		
	a) Oriented to own ability	20	66.6
	b) Forgets limitation	10	33.4

It is evident in table 2 that 53.4% of senior citizens had history of falls within three months, 86.6% of them were suffering with more than two medical conditions, 53.4 % were bedridden, 56.6% were weak and 66.6% were oriented to own ability.

Table 3: Frequency and percentage distribution of senior citizens according to Morse Fall Risk assessment Tool with selected criteria. (n=30)

Sl.no	Item	Frequency(f)	Percentage(%)
1.	No risk for falls	1	3.4
2.	Low risk for falls	2	6.6
3.	Moderate risk for falls	20	66.6
4.	High risk for falls	7	23.4

The study findings shows that 3.4 %(1) of senior citizens do not have the risk for falls. 6.6%(2) of senior citizens among 30 samples have low risk for falls, 66.6%(20) of senior citizens have the moderate risk for falls and 23.4%(7) of senior citizens have high risk for falls.

3. Effectiveness of pedagogic program regarding the prevention of falls among senior citizens

a) Description of knowledge scores on prevention of falls among senior citizens

The prevention of falls were arbitrarily divided as good knowledge and poor knowledge. The findings are presented in Table 4.

Table 4: Distribution of knowledge scores on prevention of falls among senior citizens. (n=30)

Prevention of falls	Frequency(f)	Percentage(%)
Pre test		
Good knowledge	19	63.4
Poor knowledge	11	36.6
Post test		
Good knowledge	25	83.4
Poor knowledge	5	16.6

It is evident that from Table 4 that, out of 30 senior citizens majority has good knowledge 19(63.4%)and remaining had poor knowledge 11(36.6%) in pretest and in posttest majority has good knowledge 25(83.4) and poor knowledge 5(16.6).

Mean, Median, Range, and Standard Deviation of pre test score and post test knowledge score of prevention of falls among senior citizens.

The pretest and post test score obtained from the samples were tabulated into a master sheet and mean, median, standard deviation and range were computed, and findings are presented in the Table 5.

Table 5: Mean, Median, Range, and Standard Deviation of pre test score and post test knowledge score of prevention of falls among senior citizens. (n=30)

Senior citizens	Mean	Median	Range	Standard deviation
Pre test	16.4	14	13-21	±3.2
Post test	22.28	22	10-29	±3.07

The data presented in Table 5 shows that the pretest scores of prevention of falls among senior citizen. In pre test mean is 16.3 with SD ±3.2, ranged from 13-21. In post test mean is 22.28 with SD± 3.07 ranged from 10-29.

4. Findings related to association between prevention of falls in senior citizens and their selected personal variables.

Chi square was computed and the data depicted that, there is no statistically significant association between prevention of falls and their selected personal variables. Hence, it is inferred that prevention of falls among senior citizens is not influenced by their selected personal variables

LIMITATION

1. The study is limited to senior citizens residing in old age home only
2. The study is limited to senior citizens available at the time of data collection.
3. The sample size is only 30 senior citizens; hence this limits the generalization of findings beyond the study samples.
4. In this study the pedagogic program is limited to only senior citizens residing in old age home.
5. This study adopted non probability purposive sampling technique, hence the generalization of the findings outside the study samples are limited.

RECOMMENDATIONS

1. Similar study can be carried out on a larger sample for broader generalization.
2. Pedagogic Program can be organized for families and in communities.
3. A similar study can be conducted by adopting true experimental design
4. A descriptive survey can be done to find out the prevalence of prevention of falls among senior citizens.

CONCLUSION

The pedagogic program was effective in increasing the knowledge regarding the prevention of falls among senior citizens. Thus, it was concluded that, the Pedagogic program was effective in enhancing the prevention of falls among senior citizens. Therefore, the study reinforces the need to organize health campaigns and teaching programe which sensitize on prevention of falls among senior citizens.

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