



Effect Of Educational Intervention On Knowledge Regarding Health Promotional Strategies Of Elderly People Among Caregivers In Selected Rural Communities, Gangajalghati Block, Bankura, West Bengal

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Abstract: A pre-experimental study was adopted on effect of educational intervention on knowledge regarding health promotional strategies of elderly people among caregivers in selected rural communities, Bankura, West Bengal with the objectives to assess the knowledge of the caregivers regarding health promotional strategies of elderly people before and after educational intervention, to evaluate the effectiveness of educational intervention regarding health promotional strategies of elderly people and to find out the association between pre-test knowledge score and the selected demographic variables. By simple random sampling technique 68 caregivers of elderly people were selected and data were collected by semi- structured demographic proforma, structured knowledge interview schedule. Pre-experimental one group pre-test post-test design was adopted. Study findings revealed that the educational intervention was effective in increasing knowledge as evident from the mean difference of pre and post-test knowledge score ($t=31.34$, $p=0.05$). There was significant association of the pre-test knowledge score of the caregivers of elderly people with their educational status. The study has implications for nursing practice, education, administration and research.

Index Terms - Effect, Educational intervention, Knowledge, Health promotional strategies, Caregivers

I. INTRODUCTION

Ageing is universal, inevitable, irreversible slow detrimental changes in physiological function of most tissues and organ system. According to WHO, old age is the period of life when impairment of physical and mental functions becomes increasingly manifested by comparison in the previous period of life.¹

Further, aging is defined as a progressive deterioration of physiological functions with age, including a decrease in productivity. In many developing countries, when active contribution to the society is no longer possible old age is seen to begin at this point. Senior citizens aged 60 years and above are considered to be elderly. Old age is a sensitive phase. Along with growing age various issues affect the lives of senior citizens and further complicate into major physiological and psychosocial problems. The elderly people have various complex needs (physical, emotional, nutritional, financial) and the family members are the most supportive group for them³. Family provides care to the elderly in variety of physical task and activities of daily living such as bathing, dressing, giving medications and feeding them.

The knowledge of the family member or caregiver about various health promotional strategies like obtaining preventive measures to avoid fall and fractures, providing assistive devices, digestible nutritious diet in small and frequent interval, providing a sound environment for good sleep, regular exercise and walking, avoiding smoking and alcohol etc can improve health of elderly people as well as keeping them fit.

II. BACKGROUND

In 2022 there were 771 million people aged 65+ years globally accounting for almost 10% of world's population and it is expected to hit 16% in 2050 and eventually 24% by 2100.⁵ According to Institutional Responses India Aging Report 2023, the share of elderly population in West Bengal is projected to increase from 11.3% in 2021 to 18.2% in 2036.⁶

Although many senior citizens enjoy good health, most have at least one chronic illness, and many have multiple health conditions. Preventable or treatable chronic problems are the major cause of disability and pain among older adults.⁸

Centers for Disease Control and Prevention (CDC) revealed that about 36 million falls are reported among elderly people each year- resulting in more than 32000 deaths. In 2021, 38,742 older adults aged 65 and older died from preventable falls, and nearly 2.9 million were treated in emergency departments¹¹

Health conversation around older adults tends to revolve around things like memory loss, safety and managing chronic conditions but nutritional status of elderly person is often overlooked. According to Ministry of Social Justice and Empowerment: Nutritional status of senior citizens reported by PIB, Delhi (April, 2022) more than a quarter of elderly age 60 and above were underweight (27%) and a fifth of elderly were overweight/ obese (22%), indicating a dual burden of undernutrition and overnutrition among elderly in India.¹⁴

Tobacco and alcohol use are burning issues in public health concerns in many countries including India because of the associated health hazards. Data from the National Survey on Drug Use and Health (2021) indicated that approximately 20 percent of adults aged 60-64 and around 11 percent over age 65 reported current binge drinking alcohol¹⁷.

Families are the basis of all human societies which have been discovered in every human culture. Family is a closest social institution and its influence can be felt in everyday lives. As elderly need more support and help in their later life, the importance of family rises with growing age. Family provides care to elderly people. They assist and help in variety of physical task and activities of daily living such as bathing, dressing, giving medication and feeding them. They can provide basic care to elderly as caregivers.⁴

III. NEED OF THE STUDY

According to the United Nations Population Fund's India Aging Report 2023, the aged population over 60 years

would double from 10.5% or 14.9 crore (As on July 1, 2022) to 20.8% or 34.7 crore by 2050.²⁶

Healthy Ageing is the process of developing and maintaining the functional ability that enables wellbeing of the elderly people. Many physiological changes are a natural part of aging. With all these changes, seniors still can live normally and can continue to do so with precautions, positive attitude and healthy life style. The elderly persons often suffer from many chronic diseases. They need long term and constant care.

Shilpa N Kugali, et al (2023) conducted a study on assessment of knowledge and attitude of caregivers regarding selected elderly health problems in selected rural areas of B.agalkot District. The study result revealed that, 41.06% of guardians had average knowledge and 73.73% of the caregivers had agreeable attitude. There was a significant association between the knowledge and selected demographic variables²⁹

Nandaprakash P, Lingaraju M, B.S Shakuntala (2019) conducted a study to evaluate the effectiveness of structured teaching programme regarding knowledge on health promotion strategies among elderly care giver at selected old age home of Mysore District. The study result revealed that

majority of the respondents (80%) had poor knowledge followed by 20% of respondents who had average knowledge. After structured teaching programme most (87.5%) of the respondents had good knowledge regarding health promotion strategies and maximum (12.5%) of the respondents had very good knowledge.

As with the increasing elderly population the life expectancy of elderly person has increased, it is very important to improve and maintain their health and family as a caregiver must have the knowledge of how to provide continuous preventive and promotive health care. So various awareness programme on knowledge of caregivers regarding health promotional strategies of elderly people should be organized and developed to provide the optimum health restorative to the elderly people. So, the researchers felt the need to conduct the present study.

IV. OBJECTIVES

1. To assess the knowledge of the caregivers regarding health promotional strategies of the elderly people before and after educational intervention in selected rural communities, Gangajalghati block, Bankura, West Bengal
2. To evaluate the effectiveness of educational intervention regarding health promotional strategies of elderly people
3. To find out the association between pre-test knowledge score of the caregivers and the selected demographic variables.

V. CONCEPTUAL FRAMEWORK

Conceptual framework presents logically constructed concepts to provide a general explanation of the relationship between the concepts of the research study. The present study is based on Karl Ludwig Von Bertalanffy's General System Theory (1968). This model has three main components-Input, Process and Output.

In this study, input refers to preparation of content, lesson plan with audiovisual aids, development and validation of tools and development of educational intervention programme regarding health promotional strategies of elderly people among caregivers with their back ground characteristics such as age, gender, educational status, occupation, socio-economic class, relation with the elderly person, marital status, presence of any chronic disease of elderly person, information received regarding health promotional strategies of elderly people, any sensitization programme /workshop /seminar regarding health promotional strategies of elderly people attended.

Process is the way in which the professionals and others use the resources and the manner in which information is given. The assessment of knowledge before administration of educational intervention regarding health promotional strategies of elderly people using structured knowledge interview schedule, introduction of educational intervention and assessment of knowledge after administration of educational intervention among caregivers of elderly people.

Output is the end result in terms of change the knowledge regarding health promotional strategies of elderly people after educational intervention. In this study it is referred to the change in knowledge of the caregivers regarding health promotional strategies of elderly people.

Feedback is the process through which output is returned to system which is not under study.

VI. RESEARCH METHODOLOGY

The research methodology indicates the general pattern for organizing the procedure of gathering valid and reliable data for an investigation. The content of the chapter includes research approach, research design, variables, setting, sample size and sampling technique, data analysis. The details are as follows;

1. Research Approach and Design

Quantitative research approach was undertaken for the study. Pre-experimental one group pre-test post-test design was adopted.

2. Variables of the Study

Independent variable- Educational intervention regarding health promotional strategies of elderly people

Dependent variable- Knowledge of the caregivers of elderly people

Demographic variable- Age, gender, educational status, occupational status, relation with elderly person, socio-economic class according to the modified B.G. Prasad scale (2022), marital status, presence of any chronic disease of elderly person, previous knowledge regarding health promotional strategies of elderly people, source of knowledge, any workshop/ seminar / sensitization programme etc. attended or not.

3. Setting

The final study was conducted at Birrah and Bhattapara villages of Gangajalghati Block, Bankura, West Bengal.

4. Population and Sample

The population consisted of all caregivers of elderly people of rural communities, Bankura, West Bengal.

Sample consisted of caregivers of elderly people of selected rural communities, Gangajalghati Block, Bankura, West Bengal

5. Sample size and sampling technique

68 caregivers of elderly people were selected by simple random sampling technique

6. Data collection tools and technique

Semi structured demographic proforma was used to collect the demographic data of the study samples. A structure knowledge interview schedule was prepared to assess the knowledge regarding health promotional strategies of elderly people among caregivers. Data were collected by interviewing the study subjects.

7. Data Collection period

After obtaining formal ethical and administrative approval the final study was conducted from 02/01/24 to 27/01/24.

8. Statistical tools

8.1. Descriptive statistics

Analysis of the demographic data were done by frequency percentage. Mean, Median and Standard Deviation were computed to assess the knowledge score of the caregivers regarding health promotional strategies of elderly people

8.2. Inferential statistics

- Paired 't' test was computed to compare pre-test and post-test knowledge score of the caregivers.
- Chi square test was computed to find the association between the pre-test knowledge score with selected demographic variables.

VII. MAJOR FINDINGS AND RESULT

1. Findings related to demographic characteristics of the study samples

Table 1 Distribution of study subjects according to age in years, gender, educational status, occupational status, socioeconomic class as per modified B. G. Prasad scale (2022), relation with the elderly person

Characteristics (%)	n =68 Frequency (f)	Percentage
Age (in yrs.)		
20-31	17	25.00
32-43	18	26.47
44-55	33	48.53
Gender		
Male	16	23.53
Female	52	76.47
Transgender	0	00
Educational Status		
No formal education and cannot sign	15	22.06
No formal education but can sign only	10	14.71
Primary	34	50.00
Secondary	05	7.35
Higher secondary	01	1.47
Graduate	03	4.41
Above graduate	0	00
Occupational Status		
Unemployed	01	1.47
Service	02	2.94
Businessman	06	8.82
Homemaker	49	72.06
Daily labour	10	14.71
Other (Specify)	0	00
Socioeconomic class as per modified B. G. Prasad Scale (May, 2022)		
I (Upper class)- Rs. 8480 and above	0	00
II (Upper middle class)- Rs. 4280-8479	01	1.47
III (Middle class)- Rs. 2544-4239	04	5.89
IV (Lower middle class)- Rs. 1272-2543	23	33.82
V (Lower class)- <Rs. 1272	40	58.82
Relation with elderly person		
Husband	0	00
Wife	20	29.41
Son	13	19.11
Daughter	03	4.41
Daughter-in-law	27	39.71
Other	05	7.36

Data presented in Table 1 revealed that, maximum (48.53%) of the caregivers of elderly people belonged to the age group of 44-55 years. Data also showed that, most (76.47%) of the caregivers were female and majority (50%) of the caregivers had primary level of education, majority (72.06%) of the caregivers were home makers. majority (58.82%) of the caregivers of elderly people belonged in lower class and maximum (39.71%) of the caregivers were daughters-in-law of elderly person.

Table 2 Distribution of study subjects according to marital status, presence of chronic disease of the elderly

Person, information received regarding health promotional strategies of elderly people.

n = 68

Characteristics	Frequency (f)	
Percentage (%)		
Marital status		
Married	66	97.06
Unmarried	02	2.94
Presence of any chronic disease of elderly person		
Yes	29	42.65
No	39	57.35
Information received regarding health promotional strategies of elderly people		
Yes	10	14.70
No	58	85.30

Data presented in Table 2 revealed that, most (97.06%) of the caregivers of elderly people were married and maximum (42.65%) of the caregivers' elderly person had chronic disease out of which majority (51.72 %) of elderly persons suffered from hypertension.

Data also showed that, maximum (14.70%) of the caregivers had received information regarding health promotional strategies of elderly people and most (90%) of the caregivers received information from health care workers. No caregiver attended any sensitization program/workshop /seminar regarding health promotional strategies of elderly people.

2. Findings related to knowledge levels of the caregivers

The study revealed that, majority (67.65%) of the caregivers of elderly people had poor knowledge score during pretest and maximum (10.29%) of the caregivers scored good knowledge and no one scored excellent knowledge in pre-test. Majority (70.59%) of the study samples scored good and maximum (8.82%) of caregivers scored excellent knowledge in post-test. The maximum modified gain score (0.62) took place in the area of nutritious diet and the minimum modified gain score (0.32) was observed in the area of social and mental stimulation regarding health promotional strategies of elderly people

3. Effectiveness of educational intervention regarding health promotional strategies of elderly people among caregivers

Table 3 Mean, median, standard deviation, mean difference and paired ‘t’ test value of the pre-test and post-test knowledge score of caregivers of elderly people.

n= 68

Knowledge score 't' value	Mean	Mean Difference	Median	Standard deviation	Paired
Pre-test 31.34	5.94	9.82	5	3.97	
Post-test	15.76		16	3.45	
T (df 67) =1.98, p=0.05					

The data presented in Table 3 indicated that, the mean post-test knowledge score (15.76 ± 3.45) of the caregivers of elderly people was significantly higher than their mean pre-test knowledge score (5.94 ± 3.97), with a mean difference of 9.82

Paired ‘t’ value was computed from the above data which was found statically significant as evident from the corresponding ‘t’ value (31.34) indicating that the mean difference (9.82) was a true difference and not by chance.

Hence, the null hypothesis H₀ was rejected and research hypothesis H₁ was accepted. So, it could be concluded that the educational intervention regarding health promotional strategies of elderly people was effective in improving the knowledge of the caregivers of elderly people.

4. Findings related to association between pre-test knowledge score and the selected demographic variables

There was significant association present between pre-test knowledge score and educational status of caregivers of elderly people. So, it could be concluded that the knowledge of the caregivers of elderly people depended on their educational status.

There was no significant association of pre-test knowledge score with age, gender, occupational status, socioeconomic status, relation with elderly person, marital status, presence of chronic disease of elderly person. So, it could be concluded that the knowledge of the caregivers of elderly people was depended on their age, gender, occupational status, socioeconomic status, relation with elderly person and presence of chronic disease of elderly person.

VIII. IMPLICATIONS

The finding of the study has several implications for nursing practice, nursing education, nursing administration and nursing research.

IX. CONCLUSIONS

From the present study it could be concluded that majority (67.65%) of the caregivers of elderly people scored poor knowledge in pre-test and minimum modified gain score (0.32) was in the area of social and mental stimulation regarding health promotional strategies of elderly people. As the physical and mental health are interconnected and maintaining good physical health can have a significant impact on mental health, so knowledge can be improved by administration of educational intervention regarding social and mental stimulation as well as overall health promotional strategies of elderly people.

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