

EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAMME ON KNOWLEDGE REGARDING COPING STRATEGIES FOR SELECTED COMMON HEALTH PROBLEMS OF OLD AGE AMONG ELDERLY OF SELECTED OLD AGE HOME AT HASSAN

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Abstract

Old age is not a disease but there is an increase in vulnerability to get the diseases related to many psycho-sociological and economic factors. With advancing age, old persons have to cope with health and associated problems some of which may be chronic, of multiple natures, require constant attention and carry the risk of disability and consequent loss of autonomy. The aim of the study was to assess the existing knowledge regarding coping strategies for selected common health problems of old age among elderly, to find the effectiveness of Video Assisted Teaching Programme (VATP) on knowledge and to find the association between post test knowledge level and socio-demographic variables. An evaluative one group pre-test post-test pre-experimental design was used. Complete enumeration was done to select 50 elderly residents of Chaitanya old age home, Gavenaalli, Hassan as study participants. A structured knowledge questionnaire was used to assess the knowledge and VATP was administered to find its effectiveness. The collected data was analyzed by using descriptive & inferential statistics. In pre-test, mean of overall knowledge score of the respondents was $16.24\% \pm 2.38\%$ and that of the post-test was 27.60 ± 1.88 . The calculated paired 't' test value was 24.72 ($p < 0.05$, $df = 49$), which was greater than the table value [$t(0.05, 49df) = 2.01$] which was statistically significant at 5% level. None of the selected demographic variables were associated with post-test knowledge scores. The study concluded that VATP regarding coping strategies for selected common health problems of old age was an effective method of enhancing the knowledge of elderly.

Key words: Effectiveness, VATP, Knowledge, coping strategy, selected common health problem, elderly.

INTRODUCTION

Ageing is a natural, universal, and irreversible biological process characterized by gradual physiological, psychological, and social changes that reduce the functional capacity of an individual. Although ageing itself is not considered a disease, advancing age is associated with an increased susceptibility to chronic illnesses, disability, and dependency. Improvements in medical care, nutrition, and public health have significantly increased life expectancy worldwide, resulting in a rapid growth of the elderly population and creating new challenges for healthcare systems (World Health Organization [WHO], 2024).

Older adults commonly experience multiple health problems affecting various body systems, including musculoskeletal disorders, cardiovascular diseases, diabetes mellitus, neurological disorders, respiratory illnesses, visual and hearing impairments, cognitive decline, malnutrition, dehydration, and frailty. These conditions often

coexist as multimorbidity, reducing functional independence, increasing healthcare utilization, and negatively affecting the quality of life. In addition, psychological problems such as depression, anxiety, loneliness, and social isolation are frequently observed among the elderly, particularly those with chronic illnesses or limited family support (Prince et al., 2015; WHO, 2024).

India is experiencing a rapid demographic transition, with the proportion of older adults increasing steadily. According to the Census of India, more than 104 million people were aged 60 years and above in 2011, and this number is expected to increase substantially in the coming decades (Office of the Registrar General & Census Commissioner, 2011). Population ageing has created a growing demand for comprehensive geriatric healthcare services, especially in rural areas where access to healthcare remains inadequate. Age-related physiological decline, coupled with socioeconomic challenges such as retirement, financial dependency, poverty, and reduced social support, further increases the vulnerability of older adults (United Nations Department of Economic and Social Affairs [UN DESA], 2023).

NEED FOR THE STUDY

The increasing burden of chronic diseases among older adults has become a major public health concern. Conditions such as hypertension, diabetes, arthritis, cataract, hearing impairment, osteoporosis, chronic respiratory diseases, and cognitive disorders significantly impair physical functioning and independence. Many of these conditions remain undiagnosed or inadequately managed due to poor access to healthcare services, lack of awareness, financial constraints, and inadequate health-seeking behavior, particularly in developing countries (World Health Organization, 2024).

Several studies have reported a high prevalence of health problems among the elderly. Lena et al. (2009) observed that hypertension, arthritis, diabetes, cataract, asthma, and anemia were among the most common morbidities among older adults in South India, while many participants also reported feelings of neglect and poor psychological well-being. Swarnalatha (2013) similarly found that visual impairment, hypertension, depression, arthritis, diabetes, and hearing problems were highly prevalent among elderly residents of old-age homes, emphasizing the need for regular health screening and early intervention. Likewise, Banjare and Pradhan (2014) highlighted the growing burden of multimorbidity among elderly populations in South Asia and stressed the importance of strengthening primary healthcare services.

With the growing elderly population in India, there is an urgent need to assess the health problems experienced by older adults to facilitate early identification, effective management, and preventive interventions. Such assessments can help healthcare professionals develop appropriate health education programmes, promote healthy ageing, reduce disability, improve quality of life, and guide policymakers in planning evidence-based geriatric healthcare services. Therefore, the present study is undertaken to assess the health problems among elderly individuals and generate evidence that may contribute to improving geriatric care and healthy ageing in the community.

OBJECTIVES OF THE STUDY

1. To determine the existing knowledge regarding coping strategies for selected common health problems of old age among elderly.
2. To evaluate the effectiveness of Video assisted teaching program on knowledge regarding coping strategies for selected common health problems of old age among elderly.
3. To find the association between the posttest knowledge level among elderly and their selected demographic variables.

HYPOTHESES:

H1: There is a significant difference between mean pre-test and post-test knowledge scores among elderly regarding coping strategies for selected common health problems of old age.

H2: There is a significant association between post-test knowledge level among elderly and their selected demographic variables.

VARIABLES:

- Dependent variable: Knowledge among elderly regarding coping strategies for selected common health problems of old age.
- Independent variable: Video assisted teaching program regarding coping strategies for selected common health problems of old age.
- Extraneous variables: They include demographic variables of elderly of selected old age homes at Hassan. Viz age, sex, religion, marital status, educational qualification, family income, occupation, length of stay in old age home, number of children, number of male children, number of female children, number of grand children, presence of any known morbidities, exposure to information resources related to coping strategies, etc.

OPERATIONAL DEFINITIONS:

- Effectiveness: Effectiveness refers to the extent of the ability of video assisted teaching program regarding coping strategies for selected common health problems of elderly to produce a specific and significant effect on knowledge among elderly.
- Video assisted teaching program: It refers to a planned video program for elderly in Kannada for 30 minutes regarding various coping strategies for selected common health problems of old age home. It includes information regarding the process of ageing, common health problems among elderly, preventive measures and coping strategies for common health problems among elderly.
- Coping strategy: This refers to the health related measures to be taken by the elderly in order to cope with the common health problems.
- Knowledge: Knowledge refers to the ability of respondents to give correct responses to the questions in the structured interview schedule regarding coping strategies for selected common health problems of old age.
- Selected common health problem: They refer to the most prevalent health problems among elderly which include hearing problems, vision problems, osteoporosis, hypertension and diabetes mellitus.
- Elderly: Elderly refers to the adults belong to the age group of above 60 years who live in selected old age home at Hassan.
- Old age home: Refers to an institution which is dedicated to the care of elderly who have been destitute and orphaned. It is a multi residence housing facility intended for senior citizens which is situated in Hassan and will give permission to conduct the proposed study.

ASSUMPTIONS:

- Elderly people have some knowledge regarding coping strategies for common health problems of old age.
- Structured interview schedule is an appropriate tool to measure the knowledge regarding coping strategies for common health problems of old age.
- Increased level of knowledge regarding coping strategies for selected common health problems helps elderly to improve their quality of life.

DELIMITATIONS:

- Study is delimited to the elderly of selected old age home at Hassan.
- Study is delimited to the knowledge regarding coping strategies for selected common health problems of old age.

RESEARCH METHODOLOGY

RESEARCH APPROACH

A research approach provides the overall direction for conducting a study and guides the selection of appropriate methods for data collection and analysis. The present study adopted a **Quantitative Evaluative Research Approach**, which is suitable for measuring the effectiveness of an intervention through statistical analysis. This approach was selected to evaluate the effectiveness of the **Video Assisted Teaching Programme (VATP)** on knowledge regarding coping strategies for selected common health problems of old age among elderly people by comparing their pre-test and post-test knowledge scores.

RESEARCH DESIGN

The study employed a **One-Group Pre-test and Post-test Pre-experimental Research Design**. A single group of elderly participants was assessed using a pre-test (O_1), followed by the administration of the Video Assisted Teaching Programme (X). A post-test (O_2) was conducted on the eighth day using the same structured questionnaire to evaluate the effectiveness of the intervention.

Schematic Representation

Group	Pre-test	Intervention	Post-test
Elderly People	O_1	X	O_2

O_1 : Pre-test to assess knowledge regarding coping strategies for selected common health problems of old age.

X: Video Assisted Teaching Programme.

O_2 : Post-test conducted on the eighth day using the same questionnaire.

VARIABLES OF THE STUDY

- **Independent Variable:** Video Assisted Teaching Programme regarding coping strategies for selected common health problems of old age.
- **Dependent Variable:** Knowledge of elderly people regarding coping strategies for selected common health problems of old age.
- **Extraneous Variables:** Age, gender, religion, marital status, educational qualification, previous occupation, monthly income, number of children, years of stay in the old age home, existing health problems, and previous exposure to health information.

SETTING OF THE STUDY

The study was conducted at **Chaitanya Old Age Home, Gavenahalli, Hassan**. The setting was selected based on the availability of participants and the feasibility of conducting the study.

POPULATION, SAMPLE, AND SAMPLING TECHNIQUE

The target population comprised elderly people residing in Chaitanya Old Age Home, Hassan. The sample consisted of **50 elderly persons** selected through **complete enumeration** after applying the inclusion and exclusion criteria. Participants who were present during data collection, willing to participate, and residing in the old age home were included, whereas those who did not understand Kannada or were seriously ill during the study period were excluded.

DEVELOPMENT OF THE VIDEO ASSISTED TEACHING PROGRAMME

The Video Assisted Teaching Programme was prepared based on the study objectives, literature review, and expert opinion. The content included general information on health problems of old age and coping strategies related to heart disease, diabetes mellitus, bone and joint disorders, visual and hearing impairment, and obesity. The programme was validated by experts in Medical-Surgical Nursing and a physician before implementation.

DESCRIPTION OF THE TOOL

A **Structured Interview Schedule** was used for data collection.

- **Part I:** Socio-demographic profile of the elderly.
- **Part II:** A structured knowledge questionnaire consisting of **40 multiple-choice questions** covering six areas: general health problems, heart diseases, diabetes mellitus, bone and joint disorders, visual and hearing impairment, and obesity.

Each correct answer carried **one mark**, with a maximum score of **40** and a minimum score of **0**.

VALIDITY AND RELIABILITY

Content validity of the tool and the teaching programme was established by **10 experts**, including Medical-Surgical Nursing faculty, a physician, and a statistician. Reliability was established using the **Split-Half Karl Pearson correlation method**. The reliability coefficient of the entire tool was **$r = 0.96$** , indicating excellent reliability.

PILOT STUDY

A pilot study was conducted from **18 April 2018 to 26 April 2018** at Chaitanya Old Age Home, Hassan, to assess the feasibility of the study and the suitability of the research tools. The findings confirmed that the study was feasible, and no major modifications were required before the main study.

DATA COLLECTION PROCEDURE

Administrative permission was obtained from the Managing Director of Chaitanya Old Age Home. The main study was conducted from **11 May 2018 to 18 May 2018**. After obtaining informed consent, a pre-test was administered to assess baseline knowledge. The Video Assisted Teaching Programme was delivered immediately after the pre-test. A post-test using the same questionnaire was conducted on the **eighth day** to evaluate the effectiveness of the intervention. Each participant required approximately **45 minutes** to complete both the pre-test and post-test.

PLAN FOR DATA ANALYSIS

The collected data were analyzed using descriptive and inferential statistics.

Descriptive Statistics

- Frequency and percentage were used to describe demographic characteristics.
- Mean, mean percentage, standard deviation, range, and coefficient of variation were used to assess knowledge scores.

Inferential Statistics

- **Paired t-test** was used to determine the effectiveness of the Video Assisted Teaching Programme.
- **Chi-square test** was used to determine the association between post-test knowledge scores and selected demographic variables.

RESULTS

Table 1: Frequency and Percentage Distribution of Socio-Demographic Variables of Elderly Participants (N = 50)

Sl. No.	Socio-Demographic Variable	Category	Frequency (n)	Percentage (%)
1	Age (Years)	≤65	15	30.0
		66–70	15	30.0
		71–75	14	28.0
		≥76	6	12.0
2	Gender	Male	10	20.0
		Female	40	80.0
3	Religion	Hindu	44	88.0
		Muslim	2	4.0
		Christian	4	8.0
4	Marital Status	Unmarried	7	14.0
		Married	21	42.0
		Widow/Widower	22	44.0
5	Educational Status	No formal education	29	58.0
		Primary education	14	28.0

		Secondary education & above	7	14.0
6	Previous Occupation	Government employee	2	4.0
		Private employee	3	6.0
		Self-employed	3	6.0
		Agriculture	9	18.0
		Unemployed	33	66.0
7	Present Monthly Income (₹)	No income	33	66.0
		₹500	15	30.0
		₹8,000	1	2.0
		₹20,000	1	2.0
8	Number of Children	No children	7	14.0
		One	22	44.0
		Two	18	36.0
		Three and above	3	6.0
9	Number of Male Children	No male children	31	62.0
		One	17	34.0
		Two	2	4.0
10	Number of Female Children	No female children	11	22.0
		One	32	64.0
		Two and above	7	14.0
11	Number of Grandchildren	No grandchildren	8	16.0
		One	13	26.0
		Two	17	34.0
		Three and above	12	24.0
12	Years of Stay in Old Age Home	≤3 years	31	62.0
		4–6 years	11	22.0
		≥7 years	8	16.0
13	Suffering from Any Health Problem	Yes	50	100.0
		No	0	0.0
14	Previous Exposure to Information	No previous exposure	36	72.0
		Family/Friends	2	4.0
		Mass media (TV/Newspaper)	12	24.0

Table 1 shows that the majority of the elderly participants were 66–70 years and 65 years or below (30% each), female (80%), Hindus (88%), and widowed (44%). More than half (58%) had no formal education, while 66% were unemployed and had no monthly income. Most participants had one child (44%), no male children (62%), one female child (64%), and two grandchildren (34%). The majority (62%) had been staying in the old age home for three years or less. All participants (100%) reported having at least one health problem, and 72% had no previous exposure to information regarding coping strategies for common health problems of old age.

Table 2: Comparison of Pre-test and Post-test Levels of Knowledge among Elderly People (N = 50)

Level of Knowledge	Knowledge Score (%)	Pre-test (n)	Post-test (n)	Pre-test (%)	Post-test (%)
Inadequate	≤ 50%	48	0	96.0	0.0
Moderately Adequate	51–75%	2	45	4.0	90.0
Adequate	> 75%	0	5	0.0	10.0
Total		50	50	100.0	100.0

Table 2 shows the comparison of knowledge levels before and after the Video Assisted Teaching Programme. During the pre-test, the majority of the elderly participants (96%) had inadequate knowledge, while only 4% had moderately adequate knowledge, and none had adequate knowledge. In the post-test, no participant had inadequate knowledge, 90% had moderately adequate knowledge, and 10% achieved adequate knowledge. These findings indicate a marked improvement in the knowledge level of the elderly following the Video Assisted Teaching Programme.

Table 3: Mean, Mean Percentage, and Paired *t*-Test Values of Pre-test and Post-test Knowledge Scores among Elderly People Regarding Coping Strategies for Selected Common Health Problems of Old Age (N = 50)

Aspects	Pre-test Mean	Post-test Mean	Enhancement	Pre-test Mean (%)	Post-test Mean (%)	Enhancement (%)	Paired <i>t</i> -value
General information about health problems	0.82	3.58	2.76	13.67	59.67	46.00	18.40*
Coping strategies for heart diseases	3.50	5.16	1.66	50.00	73.71	23.71	8.17*
Coping strategies for diabetes mellitus	1.70	3.38	1.68	34.00	67.60	33.60	8.12*
Coping strategies for bone and muscular problems	2.90	4.66	1.76	41.43	66.57	25.14	8.34*
Coping strategies for visual and hearing loss	4.00	6.52	2.52	44.44	72.44	28.00	12.32*
Coping strategies for obesity	3.32	4.30	0.98	55.33	71.67	16.34	5.84*
Overall Knowledge Score	16.24	27.60	11.36	32.48	55.20	22.72	24.72*

* Significant at 0.05 level; $t(0.05, df = 49) = 2.01$

Table 3 shows that the overall mean knowledge score increased from 16.24 (32.48%) in the pre-test to 27.60 (55.20%) in the post-test, with an enhancement of 11.36 (22.72%). The highest improvement was observed in general information about health problems (46.00%), while the least improvement was seen in coping strategies towards obesity (16.34%). The calculated paired *t*-values for the overall score (24.72) and all individual aspects were greater than the table value ($t = 2.01, df = 49$), indicating a statistically significant improvement in knowledge following the Video Assisted Teaching Programme ($p < 0.05$).

Table 4: Association Between Post-test Knowledge and Selected Socio-Demographic Variables Among Elderly People (N = 50)

Sl. No.	Socio-Demographic Variable	Calculated χ^2 Value	df	Inference
1	Age	1.54	3	Not Significant
2	Gender	0.32	1	Not Significant
3	Religion	1.28	2	Not Significant
4	Marital Status	3.72	2	Not Significant
5	Educational Status	2.15	2	Not Significant
6	Previous Occupation	5.64	4	Not Significant
7	Present Monthly Income	2.02	3	Not Significant

8	Number of Children	5.45	3	Not Significant
9	Number of Male Children	2.27	2	Not Significant
10	Number of Female Children	6.99	3	Not Significant
11	Number of Grandchildren	3.20	3	Not Significant
12	Years of Stay in Old Age Home	0.30	2	Not Significant
13	Previous Exposure to Information	1.36	2	Not Significant

Note: NS = Not Significant at 0.05 level.

Table 4 shows the association between post-test knowledge scores and selected socio-demographic variables of the elderly participants. The calculated chi-square (χ^2) values for age, gender, religion, marital status, educational status, previous occupation, present monthly income, number of children, number of male children, number of female children, number of grandchildren, years of stay in the old age home, and previous exposure to information were all not statistically significant ($p > 0.05$). Hence, there was no significant association between post-test knowledge and any of the selected socio-demographic variables. Therefore, the post-test knowledge gained through the Video Assisted Teaching Programme was found to be independent of the participants' socio-demographic characteristics.

Conclusion

The present study demonstrated that the baseline knowledge of elderly people regarding coping strategies for selected common health problems of old age was inadequate prior to the intervention. The findings emphasize the need for structured educational programmes to improve the knowledge and self-care practices of the elderly, thereby promoting healthy ageing and enhancing their quality of life.

The Video Assisted Teaching Programme proved to be highly effective in improving the participants' knowledge. Following the intervention, there was a statistically significant increase in the overall mean knowledge score, with the majority of participants (90%) attaining a moderately adequate level of knowledge and 10% achieving an adequate level of knowledge. The complete elimination of inadequate knowledge in the post-test further confirms the effectiveness of the Video Assisted Teaching Programme as an educational strategy.

In conclusion, Video Assisted Teaching Programmes are effective, practical, and easily accessible educational tools for enhancing knowledge regarding coping strategies for common health problems among elderly people. Such programmes can be incorporated into health education activities in old age homes and community settings to promote healthy ageing, improve self-care practices, and reduce the burden of age-related health problems.

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Conflicts of Interest

The authors declare that there are **no financial, personal, or professional conflicts of interest** that could have influenced the design, conduct, data collection, analysis, interpretation, or reporting of this study.

Funding and Sponsorship

This study **did not receive any financial support or sponsorship** from any governmental, commercial, or non-profit funding agency. All expenses related to the development of the Video Assisted Teaching Programme, data collection, and study implementation were borne by the investigator.

Ethical Considerations and Informed Consent

Prior to the commencement of the study, approval was obtained from the concerned institutional authorities and the Managing Director of **Chaitanya Old Age Home, Gavenahalli, Hassan**. The objectives and purpose of the study were explained to all eligible participants before data collection. Written informed consent was obtained from each

participant, and confidentiality, anonymity, and privacy were maintained throughout the study. Participants were assured that their involvement was voluntary and that they were free to withdraw from the study at any stage without any consequences.

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