Research Article

Effectiveness of Awareness Package on Knowledge and Attitude Regarding Prevention and Management of Elderly Health Problems among the Adults in Selected Rural Community, Bengaluru

Kalpana Newar, Kala Suneetha

Padmashree Institute of Nursing, Affiliated to Rajiv Gandhi University of Health Sciences, 146 Padmashree Campus, Kommaghatta, Sulikere Post, Bengaluru, India

Abstract

Background: Arthritis, hypertension, and diabetes mellitus are common diseases, which affect the elderly people over 60 years and above. Within depth-knowledge and attitude of six components of healthy ageing models such as exercise, nutrition, stress management, social support, spiritual support, and cognitive training of adults will help in maintaining healthy ageing.

Aims: The aim of the study was to find the effectiveness of awareness package on knowledge and attitude and to correlate knowledge and attitude regarding prevention and management of elderly health problems among adults.

Methodology: Pre-experimental one group pre-test post-test design was used. Non-probability purposive sampling technique was used to select 60 adults. Data were collected using structured knowledge questionnaire and 3 point Likert scale.

Results: The mean knowledge score in pre-test was 16.03 with SD = 3.57 and the mean attitude score was 38.10 with SD = 2.79. Whereas in the post-test mean knowledge score was found 25.38 with SD = 1.99 and attitude score was 45.10 with SD = 2.46. Paired *t*-test shows that there was statistical significance at $P < 0.0001$ level. It showed there was an establishing impact of awareness package on knowledge and attitude regarding prevention and management of elderly health problems and there was significant linear correlation ($r = 0.288$) between knowledge and attitude regarding prevention and management of elderly health problems among the adults at $P < 0.05$ level.

Conclusion: The study concluded that the awareness package was effective in improving level of knowledge and attitude regarding prevention and management of elderly health problems among adults

Keywords: Attitude, awareness package, knowledge

Introduction

Ageing is normal part of the human life span. It is the sum total of all changing that occurs within a person with the passing of time through the life span. It is a normal, universal, progressive, irreversible process. It is an inevitable physiological phenomenon. Individual experiences in ageing in many ways such as physiological, psychologically, sociologically, and spiritually. Physical change occurs in all body's system with the passing of time. The changes are gradual; vary within the individual, and different system at different rate.[1]

The rising trend in aging population all over the world has sought the attention of International organization. It is being realized that "old age can no longer be ignored." Aging in and aging by itself is not a health problem. It is a natural process but the presence of disease may enhance the natural aging

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Address for Correspondence:
Kala Suneetha, Padmashree Institute of Nursing, Affiliated to Rajiv Gandhi University of Health Sciences, 146 Padmashree Campus, Kommaghatta, Sulikere Post - 560 060, Bangaluru, India. Phone: +91-7829616332. E-mail: suneemsc2009@gmail.com

process and cause abnormal aging process. So adult need to be physically active and eat a healthy diet and make healthy lifestyle choices to avoid severe health risk.[2]

Over weight and obesity in the adult health's become a major problem worldwide and this lead to various health problems in later life such as hypertension, diabetes, and osteoarthritis. In old age every organ of the body needs some special and extra care to ward away the diseases or deformities. So it is very important to make to make them aware that they can prevent this with healthy life style such as exercise, diet and nutrition, and stress management reducing weight this old age care that can help to add some extra years to life.[3]

Major issues currently facing the field are discussed, including the ongoing challenge of developing assessment tools that are sensitive to the more moderate-intensity physical activities favored by older adults and the formidable task of combining clinical approaches with environmental and policy strategies aimed at combating this many adults do not know about basic requirement of nutritious food with age to maintain adequate energy supply and reduces the chances of developing the diseases of old age.[4,5]

Health education increases individuals "knowledge of health and health care and makes them informed about their health care choices. Prophylactic health behaviors (such as physical activities and having healthy food) keep older adults" lives active, delay going to nursing homes and increase satisfaction with life. Among the topics where elderly people need help most, a lack of knowledge comes first (Leung *et al.*, 2006). The World Health Organization (WHO) has emphasized the importance of health education to support health-care needs and health promotion for elderly people (Rana *et al.*, 2010).[5-7]

If the adult have adequate knowledge and attitude regarding prevention and management of the elderly health problem it will be very helpful for them to span healthy and active life with ageing in future. Adult especially the age group of 30–40 years of life is considered as a crucial period of life. During this period of life adults starts suffering from various health problems. So adults should gain knowledge and attitude regarding prevention and management of elderly health problems which will be guided by health personnel.[8-10]

According to National Council on ageing about 92% of elderly have at least have two heart diseases, arthritis, cancer and diabetes mellitus, hypertension are common and costly chronic conditions causing two-third of death each year. The Nation Centre of chronic disease prevention and health promotion recommends meeting with a physician for the annual checkup, maintaining a healthy diet and keeping a exercise routine to help manage and prevent chronic disease. Obesity is growing problems among the adults and engaging in this life style behavior can help reduce help obesity and associated chronic conditions.[10-13]

From these instances the investigator assumes that the adults should have in depth knowledge and attitude regarding prevention and management of elderly health problems. Thus, this study aims to build up the knowledge gap and assess the effectiveness of awareness program on prevention and management of elderly health problems among adults as well as their attitude level.

Objectives

The objectives are as follows:

1. To assess the existing knowledge and attitude regarding prevention and management of elderly health problems among adults.
2. To assess the post-test knowledge and attitude regarding prevention and management of elderly health problems among adults.
3. To assess the effectiveness of awareness package on knowledge and attitude regarding prevention and management of elderly health problems among adults.
4. To correlate knowledge and attitude regarding prevention and management of elderly health problems among adults.
5. To associate the pre-test level of knowledge and attitude regarding prevention and management of elderly health problems with their selected demographic variables.

Methodology

Pre-experimental one group pre-test post-test design for this study was to determine the effectiveness of awareness package on knowledge and attitude regarding prevention and management of elderly health problems among the adults in Komaghatta rural area, Bengaluru. Adults residing in Komaghatta rural area those who were able to read and write Kannada or English were included in the study.

Non-probability purposive sampling was adopted and the total of 60 adults were part of the study. After explaining the purpose of the study to the respondents, informed consent was taken from each of them. A prevalidated questionnaire was used consisting of three sections.

- Section A includes the demographic variables.
- Section B includes a structured knowledge questionnaire to assess knowledge.
- Section C is a three point Likert scale was used to assess the attitude regarding prevention and management of elderly health problems among adults.

A pre-test and post-test were conducted after the awareness package intervention. For assessing knowledge a score "1" was awarded to correct response and "0" for wrong response. The highest possible score that can be attained is 32.

The scores were categorized as:

1. Inadequate knowledge (<50%)
2. Moderate knowledge (50–75%)
3. Adequate knowledge (>75%).

In pertinence to assess the attitude for positive questions,

1. Score of 3 for agree,
2. Score of 2 for uncertain and
3. Score of 1 for disagree

For negative questions,

1. Score of 3 for disagree,
2. Score of 2 for uncertain and
3. Score of 1 for agree

were framed. The highest possible score was 90 and scores were categorized as unfavorable attitude - (<50%) neutral attitude - (50–75%) favorable attitude - (>75%). Data collection was 4 weeks after conducting of pilot study.

Results

A total of 60 adults were enrolled in the study.

Data in Table 1 show that with regard to age, there is equal distribution of the subjects 30 (50%) belong to 30–35 years and 30 (50%) of adults belong to age group 36–40 years. With regard to gender, majority of the subjects 43 (71.7%) were female. With religion all of the subjects 60 (100.0%) belong to Hindu. Regarding marital status, majority of them 51 (85.0%) were married, According to educational status, majority of the subjects 36 (60.0%) were having secondary education, with regard to occupation majority of subjects 31 (51.7%) belong to housewife, with regard to family income, majority of subject 34 (56.7%) was Rs. 50001–10,000, of their monthly income and with regard to type of family, majority of subjects 38 (63.3%) belongs to nuclear family.

The data in above depicted Table 2 show regarding frequency and percentage distribution regarding knowledge on prevention and management of elderly health problems among adults before and after administration of awareness package. In the pre-test majority, 36 (60.0%) of adults had moderate knowledge and 24 (40.0%) had inadequate knowledge and none of them had adequate level of knowledge regarding prevention and management of elderly health problems before the administration of awareness package.

In post-test majority, 40 (66.7%) of them had adequate knowledge and 20 (33.3%) of them had moderate knowledge and none of them had inadequate knowledge regarding prevention and management of elderly health problems after the administration of awareness package.

The data in Table 3 show that majority 46 (76.7) of adults were having unfavorable attitude and remaining 14 (23.3%) were having neutral attitude before administrating of awareness package regarding prevention and management of elderly health problems.

In the post-test majority, 57 (95.5%) of adults were having favorable attitude and 3 (5.0%) of adults were having neutral attitude after administrating awareness package regarding prevention and management of elderly health problems among adults.

Data represented in Table 4 show that awareness package on knowledge regarding prevention of health problems carried out have a high statistical significant difference in pre-test and post- test with "*t*" value 19.79 ($P < 0.001$). It could be interpreted that the awareness package given enhanced the knowledge regarding prevention of health problems among adults.

Table 1: Frequency and percentage distribution of adults to their demographic characteristics according to age, gender, religion, marital status, educational status, occupation, family income, and type of family (n=60)

Demographic variables	Frequency	Percentage
Age in years		
30–35 years	30	50.0
36–40 years	30	50.0
Gender		
Male	17	28.3
Female	43	71.7
Religion		
Hindu	60	100.0
Christian	-	-
Muslim	-	-
Others	-	-
Marital status		
Single	9	15.0
Married	51	85.0
Separated	-	-
Widow/Widower	-	-
Educational status		
Primary education	2	3.3
Secondary education	36	60.0
Hr. Sec. Education	19	31.7
Graduate and above	3	5.0
Occupational status		
House wife	31	51.7
Daily wager	1	1.7
Business	13	21.7
Agriculture	2	3.3
Government employee	13	21.7
Private employee		
Family income (Rs./month)		
≤5000	-	-
5001–10000	34	56.7
10001–15000	14	23.3
15001 and above	12	20.0
Type of family		
Nuclear family	38	63.3
Joint family	22	36.7
Extended family	-	-

Data in Table 5 show the effectiveness of awareness package on attitude regarding prevention of health problems among adults. The data reveals that there is high statistical significant difference in pre-test and post-test with "*t*" value 15.78 ($P < 0.001$). It could be interpreted that the awareness package positively improved the attitude toward prevention of health problems among adults.

Data in above depicted Table 6 show the Karl Pearson's correlation (r = 0.288) between knowledge and attitude regarding prevention and management of elderly health problems among adults was found to be statistically significant ($P < 0.05$). There was significant trend in increase of attitude with the increase in knowledge through the regression model. The coefficient of determination implying the chance

Table 2: Frequency and percentage distribution of adults according to pre and post test level of knowledge regarding prevention and management of elderly health problems (*n*=60)

Level of knowledge	Pre-test		Post test	
	Frequency	Percentage	Frequency	Percentage
Inadequate (<50%)	24	40.0	-	-
Moderately adequate knowledge (50–75%)	36	60.0	20	33.3
Adequate (>75%)	-	-	40	66.7
Over all	60	100	60	100

Table 3: Frequency and percentage distribution of adults according to pre- and post-test level of attitude regarding prevention and management of elderly health problems (*n*=60)

Level of attitude	Pre-test		Post test	
	Frequency	Percentage	Frequency	Percentage
Unfavorable attitude (<50%)	46	76.7	-	-
Neutral favorable attitude (50–75%)	14	23.3	3	5.0
Favorable attitude (>75%)	-	-	57	95.0
Over all	60	100	60	100

Table 4: Effectiveness of awareness package on knowledge regarding prevention of health problems among adults (*n*=60)

Variable	Pretest	Post test	't' value	*P* value
	Mean±SD	Mean±SD		
Knowledge	16.03±3.57	25.38±1.99	19.79*	<0.001

*Denotes significant (*P*<0.05), SD: Standard deviation

Table 5: Effectiveness of awareness package on attitude regarding prevention and management of health problems among adults (*n*=60)

Variable	Pretest	Post test	"t" value	*P* value
	Mean±SD	Mean±SD		
Attitude	38.10±2.79	45.10±2.46	15.78*	p<0.001

*Denotes significant (*P*<0.05), SD: Standard deviation

Table 6: Correlation between knowledge and attitude regarding prevention and management of health problems among adults (*n*=60)

Variable	Mean	SD	Correlation	*P* value
Pre test				
Knowledge	16.03	3.57	0.288	<0.05
Attitude	38.10	2.79		

*Denotes significant *P*<0.05

of increase in attitude was by the influence of increase of knowledge and remaining influence was due to the other factors.

The selected demographic variables that are found to be significantly associated with the pre-test level of knowledge regarding prevention and management of elderly health problems were age and gender at $P < 0.05$ level. Hence, the null hypothesis was rejected and research hypothesis was accepted, and attitude, respectively, and proves that there was no association between pre-test level of knowledge and attitude regarding prevention and management of elderly health problems among adults.

Discussion

The present study revealed the effectiveness of awareness package on knowledge and attitude regarding prevention and management of elderly health problems among adults. From the current study the pre-test level of knowledge on prevention and management of elderly health problems among adults, 36 (60.0%) of them had moderate knowledge, and 24 (40.0%) of had inadequate knowledge and all the knowledge scores were ranging from 1–8 with mean of 3.47 and mean percentage of 69.4% we found that attitude among adults 46 (76.7%) had unfavorable attitude and 14 (23.3%) had neutral attitude and all the attitude scores were ranging between 30–49 with mean 38.10 and mean percentage of 70.5% where SD was 2.79.

The current study finding consistent with a study done by Shankar 2014,[14] conducted to assess the knowledge, attitude about hypertension on five hundred diagnosed hypertensive patients during a 1 year period rural clinic of coastal Karnataka. A semi-structured pre-tested questionnaire was used to assess socio demographic variables and knowledge, attitude, practices regarding hypertension.

Results showed that 34% patients belonged to Grade 1 education grade, 46% belonged to grade 2, 12 percent belonged to Grade 3, and eight percent belonged to Grade 4. About 13.4% patients can explain the hypertension, mostly in higher education grade. About 75.6% patients said that salt is not good for hypertension. About 50% patients had good compliance about the drugs. About 64.6% said good controls advantageous for health. About 10% have knowledge about complications.[14]

The study concludes that a significant proportion of hypertensive patients have insufficient knowledge about hypertension which is similar to a community based study by Bhardwaj *et al.*, 2010, was conducted in three villages of

Himachal Pradesh with the method of population based survey. The total sample six of 1092 adults was examined.[15] Out of which 507 (46.42%) were male and 573 (52.4%) were females 392 (35.89%) were to have hypertension in male and 33.15% in female. Only 433(39.6%) had blood pressure in normal range. 84 (21.98%) of 392 hypertensive patient were aware of their hypertensive states and only 17 of these 84 (20.23%) had then blood pressure under control. The finding reveled that only one-fifth of hypertensive persons were aware of the disease and only one-fifth of them had their blood pressure under control.[16]

With the respect to post-test level of knowledge and attitude regarding prevention and management of elderly health problems 20 (33.3%) had moderately knowledge and 40 (66.7%) had adequate knowledge and all post-test knowledge scores were ranging between 2 and 8 with mean of 4.25 and mean percentage 85.0% and SD was 0.91 With regard to post-test level of attitude maximum number of adults that 57 (95.0%) (Table 3) had favorable attitude and 3 (5.0%) had neutral attitude and all post-test attitude scores 60 were ranging between 39–49 with mean of 45.10 and mean percentage of 83.5% where SD was 2.46.

The awareness package carried out among the adults shows an effectiveness of intervention with "*t"* value were found to be 19.79 (Table 4) which was also found to be statistically significant at $P < 0.001$ level which is similar to a study conducted by Suthar and Nagar 2021, to assess the effectiveness of planned teaching program on prevention of selected lifestyle diseases among males in Kheda district where researchers found that there exists a significant effectiveness on level of attitude before and after administration of planned teaching program.[17]

With regard to effectiveness of awareness package on attitude regarding prevention and management of elderly health problems *t*-test value was found to be 15.78 (Table 5) which was statistically significant at $P < 0.001$ level. From the current study, awareness package given enhanced the knowledge and attitude regarding prevention of elderly health problems among adults. This finding is consistent with Malathy *et al.*, 2011, carried out at Erode district of south India to assess the effectiveness of diabetes counseling program on knowledge, attitude, and practices (KAP) among 207 type 2 patients. The study concluded that the study reveal diabetes counseling program on KAP among diabetic patient was effective.[18]

The test group received counseling at each visit and information leaflets from the pharmacist; the control group received counseling and information leaflet only at the end of the study. A validated KAP questionnaire was administered to both test and control group patients at based line and at final follow-up to assess awareness regarding diabetic management. Glucose and lipid levels were also evaluated at base line and final follow-up in both the group at the end of the study the KAP score of the test group patient improved significantly whereas no significant changes were observed in control group patients. The post-prandial blood glucose and lipid level showed a decrease in the test group. Thus, the study reveal diabetes counseling program on KAP among diabetic patient was effective.

The current study also revealed a significant linear correlation $r = 0.288$ in (Table 4) between knowledge and attitude regarding prevention and management of elderly health problems among adults which was found to be significant at $P < 0.05$ level.

The selected demographic variables that are found to be significantly associated with the pre-test level of knowledge regarding prevention and management of elderly health problems were age and gender at $P < 0.05$ level.

Hence, the null hypothesis was rejected and research hypothesis was accepted, and attitude, respectively, and proves that there was no association between pre-test level of knowledge and attitude regarding prevention and management of elderly health problems among adults.

There is some limitation in the present study. It was limited to the adults who were educated and residing in Kommaghatta rural area. The current study is limited to a small sample size thus the study it also be replicated using larger population.

In the present study, we found that the educational package can be effective in improving knowledge and attitude of mothers regarding prevention and management of elderly health problems among adults. Thus, the similar educational program could be designed in providing knowledge to health workers such as Anganwadi workers, school teachers, panchayath members disseminate knowledge regarding prevention, and management of elderly health problems.

A similar kind of study can be undertaken in different settings. Time series research design can also be conducted.

The study carries an implication that community health nurse plays an important role in imparting knowledge and helping adults regarding prevention and management of elderly health problems and help the government to achieve the goals and objectives regular health education program can be conducted by the nursing personnel in community settings.

Conclusion

Based on the study findings, it can be concluded that the awareness package is significantly effective in improving the knowledge and attitude regarding prevention and management of elderly health problems among adults. There is a substantial increase in knowledge and attitude of adults after administration of awareness package on prevention and management of elderly health problems.

Conflict of Interest

Nil.

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