

Effectiveness of Information, Education and Communication (IEC) Package on Level of Knowledge Regarding Management of Dementia among Care Givers of Elderly in Selected Community of Amethi District, Uttar Pradesh

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Abstract

Dementia is a syndrome due to disease of the brain, usually of chronic or a progressive, debilitating disease that often results in weight loss, malnutrition, and dehydration. Most patients with dementia receive care from family members, often untrained for this challenging role. Caregivers may not access publicly available care giving information and caregiver education programs are not widely implemented clinically. Family members often receive inadequate decision-making education. The aim of the study is to assess the effectiveness of IEC Package on level of knowledge regarding management of dementia among the caregiver of elderly in selected urban community, Amethi. The data was collected from 150 experimental and 150 control groups, caregivers of elderly by structured Questionnaire schedule. Stratified Random Sampling technique was used to select the samples.

The findings revealed that the improvement in mean score of overall level of knowledge of caregivers of elderly between pre-test and post-test, experimental was 8.57, paired 't' test experimental was 30.3, which was highly significant at $P < 0.01$ and the improvement in mean score of overall level of knowledge of caregivers of elderly between pre-test and post-test, control group was 1, paired 't' test, control group was 1.97, which was not significant at $P < 0.01$.

This showed that IEC package was effective and hence research hypothesis was accepted. Where as in control group mean score was 1, paired 't' test was, 1.98 which was not significant at $P < 0.01$, hence research hypothesis was rejected and null hypothesis was accepted. The mean difference between experimental group and control group was 7.95, paired 't' test was 17.94, which was highly significant at $P < 0.01$. This showed that IEC package was effective and hence research hypothesis was accepted.

Keywords: IEC Package, Knowledge, Caregiver of Elderly, Management of Dementia.

Introduction

Dementia describes a loss of mental function, usually associated with old age, involving problems with memory and reasoning, loss of mental abilities so severe it interferes with a person's ability to function normally at work or in social settings, described by weakness of short and long-term memory, and deterioration of identity. Around 3% of people between the ages of 65 and 75 experience the ill effects of dementia, however after age 65, the level of individuals with dementia roughly doubles with each time of life. As of now the reasons for dementia are not known for certain, and there is no known cure. ARDSI report of (2015) states that 3.1 elderly individuals per 100,000 experience the ill effects of dysfunctional behavior because of stress; dementia right now influences 5% individuals more than 65yrs of age in our nation. It states there are 3.7 million Indians with dementia and the aggregate societal expenses are around 14,700 crores. Continuously (2030) 7 million Indians is anticipated to wind up casualties of dementia.

Family members should be aware of early warning signs which may suggest that one of the old members may be on the verge of developing Alzheimer's disease. Early diagnosis and early intervention can be beneficial to both the patient and the family. Caregivers need to know about dementia and the required patient care as well as how patient care will change as the disease progresses. Caregivers must manage their sentiments of misfortune and misery as the soundness of their friends and family persistently declines.

Poor awareness is a key public health problem which has important consequences for the care giver and other member of the family. The burden of care on family remains to be a matter of concern along with the patient of dementia to understand the progression of the disease and its incidence, apart from strategies for caregivers.

Objectives

1. To evaluate the current level of knowledge on management of dementia among caregivers of elderly in Experimental and Control group.
2. To analyze pretest and posttest level of knowledge score with respect to management of dementia among caregivers of elderly in Experimental and Control group.
3. To compare the posttest level of knowledge score regarding management of dementia among caregivers of elderly amongst Experimental and Control group.
4. To associate pretest & posttest level of knowledge score with their demographical factors in both Experimental and Control group.

Review of literature

Aditi Chaudhari, et.al. (2015) A Study of Dementia: One-year commonness and related factors. - To determine the pervasiveness of dementia at the out-persistent division of Psychiatry, Healing facility, in a traverse of one year. - To separate the diverse sorts of dementia. -To think about the socio-statistic and disease related factors. -To contemplate the event of medicinal and mental dismalness. The medicinal records of all patients who had counseled at the Psychiatric out-patient office amid a time of one year were screened. Of these, the records of patients who has diagnosed as dementia were examined in detail for socio-statistic and sickness related factors. The outcomes demonstrate that the predominance of dementia in patients over 50 years old was observed to be 10.2% with Alzheimer's dementia and vascular dementia being the most widely recognized sorts of dementia. 59% of the patients were either in part or absolutely subject to their care-suppliers.

Werner (2011) examined family caregivers' knowledge about Alzheimer's disease (AD) and its correlates. A quantitative study was done using cross-sectional design with an intended audience of main informal caregivers of elderly persons suffering from AD. A total of 220 caregivers participated in the study that was recruited from large memory clinics across Israel. The participants were asked 17 questions derived from a modified version of the Alzheimer's disease Knowledge Test. Results of the study displayed poor levels of knowledge overall. Lack of knowledge was especially seen for the items assessing the prevalence, causes and symptoms of the disease. The most important vulnerability factors associated with poor knowledge were low education and being a spouse.

Research methodology

Research Approach: Comparative Research approach.

Research Design: Pretest Posttest control group design.

Pretest (O ₁)	Intervention (X)	Posttest (O ₂)
Assessment of level of knowledge regarding management of dementia among care giver of elderly before intervention by using self-administered structured questionnaire in both experimental and control group.	IEC package on knowledge regarding management of dementia among the care giver of elderly to the experimental group.	Assessment of level of knowledge regarding management of dementia among care giver of elderly after intervention by using self-administered structured questionnaire in both experimental and control group.

Material and methods

Setting: The study was conducted in the two community of Amethi District. Among which one Village was Baldirai, which population is taken as a control group. At present, around 9,200 people are staying. The second Village was Saraikhema, which population is taken as an experimental group.

At present, approximate 3,300 people are staying. The reason for selecting these villages was the investigator's convenience and expectation of co-operation from authorities in getting permission for conducting the study.

Samples & Sampling technique: The researcher selected 300 samples by using Stratified Random sampling technique.

Data collection procedure: The investigator obtained formal permission was obtained from Medical officer of Amethi P.H.C. The main study was conducted among 300 caregivers of elderly who were selected by using Stratified Random technique. Prior to data collection the investigator introduced self-explained the purpose of the study and the informed consent was obtained from the subjects; the subjects were assured the anonymity and confidentiality of the information provided by them. Structured Interview schedule was used and the data was collected. Each group took 35-40 minutes to complete the schedule. Then the Pamphlet and Planned Teaching Programme was administered on the same day. The post test was done after 30 days of administration of Pamphlet and Planned Teaching Programme to the same subjects by using the same questionnaire.

Description of tools

Tools 1: Socio-demographic data

This part consists of items for obtaining personal information about care giver of elderly such as Age in years, Gender, Marital Status, Education, Occupational Status, Family income, Type of Family, Relationship with elderly, and Source of information.

Tools 2: Section- A: Knowledge questionnaire

This part consists of a Knowledge Questionnaire of Dementia. There are total 30 questions which are divided into 5 domain- General information, Causes, Types, Signs & Symptoms and Management of Dementia.

Section B: Planned Teaching Program on dementia and its management.

Section C: Pamphlet on dementia and its management.

Results

The analyzed data was organized according to the objectives and presented under the following major headings:

Section I: Sample Characteristics.

Section II: Objective wise analysis.

Section- I Sample Characteristics.

Table 1.1. Frequency and percentage distribution of sample characteristics- experimental group

N =150

Sl.no	Demographic variables	Categories	Frequency (n)	Percentage (%)
1.	Age	20-25 yrs.	15	10
		26-30 yrs.	78	52
		31-35 yrs.	32	21
		Above 35	25	17
2.	Gender	Male	36	24
		Female	114	76
3.	Marital Status	Un-married	20	13
		Married	60	40
		Divorced / Separated	50	34
		Widow / Widower	20	13
4.	Education	No Formal Education	37	25

		Primary	74	49
		High School	27	18
		Secondary	12	8
		Graduate and Above	0	0
5.	Occupational status	Daily wages	22	15
		Private employee	39	26
		Government employee	7	5
		Unemployed	82	55
6.	Family income	Below Rs. 6430/-	73	50
		Rs. 6431- 10,718	55	35
		Rs. 10,719 - 16,077/-	22	15
		Above Rs.16,078/-	0	0
7.	Type of family	Nuclear	95	63
		Joint	43	29
		Extended	12	8
8.	Relationship with Elderly	Son/ Daughter	76	50
		Brother/ Sister	31	21
		Son/ Daughter in-laws	19	13
		Significant others	24	16
9.	Source of information	Mass media	4	3
		Friends	36	24
		Health professionals	100	67
		Others	10	7

Table 1.2. Frequency and percentage distribution of Sample Characteristics- Control group.

N =150

Sl. no	Demographic variables	Categories	Frequency (n)	Percentage (%)
1.	Age	20-25 yrs.	15	10
		26-30 yrs.	72	48
		31-35 yrs.	43	29
		Above 35	20	13
2.	Gender	Male	30	20
		Female	120	80
3.	Marital Status	Un-married	28	19
		Married	57	38
		Divorced / Separated	32	21
		Widow / Widower	33	22
4.	Education	No Formal Education	23	15

		Primary	83	55
		High School	33	22
		Secondary	11	7
		Graduate and Above	0	0
5.	Occupational status	Daily wages	17	11
		Private employee	47	31
		Government employee	6	4
		Unemployed	80	53
6.	Family income	Below Rs. 6430/-	52	35
		Rs. 6431- 10,718	81	54
		Rs. 10,719 - 16,077/-	17	11
		Above Rs.16,078/-	0	0
7.	Type of family	Nuclear	91	61
		Joint	48	32
		Extended	11	7
8.	Relationship with Elderly	Son/ Daughter	68	45
		Brother/ Sister	24	16
		Son/ Daughter in-laws	21	14
		Significant others	37	25
9.	Source of information	Mass media	6	4
		Friends	24	16
		Health professionals	102	68
		Others	18	12

Section – II

OBJECTIVE 1: To assess the existing level of knowledge on management of dementia among caregivers of elderly in experimental and control group.

Table-2.1. Pretest Frequency and Percentage distribution regarding knowledge on management of dementia among caregivers of elderly in Experimental Group.

N= 150

Level of knowledge	Classification of Care giver of elderly.	
	Number(n)	Percentage (%)
Inadequate (<50% of score)	140	93
Moderate (50-75% of score)	7	5
Adequate (>75% of score)	3	2
Total	150	100

Table-2.2. Pretest Frequency and Percentage distribution regarding knowledge on management of dementia among caregivers of elderly in Control Group.

N= 150

Level of knowledge	Classification of Care giver of elderly.	
	Number (n)	Percentage (%)
Inadequate (<50% of score)	101	67
Moderate (50-75% of score)	45	30
Adequate (>75% of score)	4	3
Total	150	100

OBJECTIVE 2: To compare pretest and posttest level of knowledge score regarding management of dementia among care givers of elderly in experimental and control group.

Table 3.1. Mean and SD of enhancement of knowledge and statistical significance – Experimental group

N=150

Sl. No.	Domain	Enhancement				paired 't' value	P- Value
		Max. score	Mean	SD	Mean %		
I	General information	5	1.2	1.13	23.67	11.42	P<0.01
II	Causes	6	1.3	1.36	22	11.01	P<0.01
III	Types	4	0.89	1.08	23.33	8.31	P<0.01
IV	Signs and Symptoms	5	1.6	1.26	33	14.95	P<0.01
V	Management	10	3.54	2.26	35.4	26.82	P<0.01
	Overall score	30	8.57	3.5	28.6	30.3	P<0.01

Table 3.2. Mean and SD of enhancement of knowledge and statistical significance – Control group

N=150

Sl. No.	Domain	Enhancement				paired 't' value	P- Value
		Max. score	Mean	SD	Mean %		
I	General information	5	0	1.21	2.3	0	P>0.01
II	Causes	6	0.1	1.26	9.3	0.79	P>0.01
III	Types	4	0.3	1	6.5	2.6	P>0.01
IV	Signs and Symptoms	5	0.25	1.11	4.1	2.08	P>0.01
V	Management	10	0.11	2.17	1.2	2.55	P>0.01
	Overall score	30	1	5.5	2.9	1.976	P>0.01

Note: **Significant at 1% level for 149 df (i.e. P<0.01)

OBJECTIVE 3: To compare the posttest level of knowledge score regarding management of dementia among care givers of elderly between experimental and control group.

Table 3.3. Overall post-test scoring of experimental and control group regarding effectiveness of IEC Package

N=150

Domain	Max. score	Total Post Test score of Caregiver of elderly				t- value
		Mean		SD	Mean %	
Posttest- Control	30	12.3	7.95	4.8	41	17.94**
Posttest - Experiment	30	20.3		2.69	67.7	

OBJECTIVE 4: To associate pretest & posttest level of knowledge score with their demographic variables in both experimental and control group

Table- 4.1a. Association of Pretest knowledge in experimental group with selected demographic variables of Caregivers

N = 150

Sl. No.	Demographic variables	Categories	Sample (n=60)		Knowledge				χ^2 - value	p-value
			No.	%	≤median		>median			
					No.	%	No.	%		
1.	Age	20-25	15	10	15	10	0	0	14.08, df=3 *	P<0.05
		26-30	78	52	72	48	5	4		
		31-35	32	21	28	19	4	11		
		>35	25	17	25	17	0	0		
4.	Education	No Formal Education	37	25	36	24	1	1	19.76, df=4 **	P< 0.05
		Primary	74	49	68	45	6	4		
		High School	27	18	26	17	1	1		
		Secondary	12	8	10	7	2	1		
		Graduate and Above	0	0	0	0	0	0		

Table 4.2a. Association of Pretest knowledge in control group with selected demographic variables of Caregivers

N=150

Sl. No.	Demographic variables	Categories	Sample (n=60)		Attitude				χ^2 - value	p-value
			No.	%	≤median		>median			
					No.	%	No.	%		
1.	Age	20-25	15	10	10	7	5	3	16.08, df=3 **	P<0.05
		26-30	72	48	43	29	29	19		
		31-35	43	29	31	21	12	16		
		>35	20	13	18	11	2	2		
4.	Education	No Formal Education	23	15	15	10	8	5	21.42 df=4 **	P<0.05
		Primary	83	55	59	39	24	16		
		High School	33	22	20	13	13	9		
		Secondary	11	7	9	6	2	1		
		Graduate and Above	0	0	0	0	0	0		

Note: S-Significant at 5% level (ie., p<0.05), NS-Not significant at 5% level (ie., p>0.05).

Table 4.2b. Association of Posttest knowledge in control group with selected demographic variables of caregivers

N=150

Sl. No.	Demographic variables	Categories	Sample (n=60)		Attitude				χ^2 - value	p-value
					≤median		>median			
			No.	%	No.	%	No.	%		
3.	Marital Status	Un-married	28	19	19	13	9	6	18.34 df=3 *	P<0.05
		Married	57	38	34	23	23	15		
		Divorced / Separated	32	21	25	17	7	5		
		Widow / Widower	33	22	14	9	19	13		
7.	Type of family	Nuclear	91	61	61	41	30	20	9.47 df=2 *	p<0.05
		Joint	48	32	28	19	20	13		
		Extended	11	7	3	2	8	5		

N. S= Not Significant, S= Significant, *P>0.05 level, **P>0.01 level, ***P>0.001 level

Interpretation and conclusion

The present investigation evaluated the viability of IEC Package on level of information with respect to administration of dementia among the caregiver of elderly in chose urban network, Amethi. The information was gathered from 150 exploratory and 150 control gathering, caregivers of elderly by organized Questionnaire plan. Stratified Random Sampling procedure was utilized to choose the examples.

The discoveries of the investigation have been talked about with reference to the objectives, hypothesis and with the discoveries of different examinations. The information is composed, examined and exhibited in the two sections. The discoveries uncovered that the change in mean score of general level of learning of caregivers of elderly amongst pretest and posttest, trial was 8.57, paired't' test experimental was 30.3, which was highly significant at P<0.01.

This demonstrated that IEC package was powerful and consequently explore theory was acknowledged. Where as in control group mean score was 1, paired 't' test was, 1.98 which was not critical at P<0.01, thus investigate research hypothesis was rejected and invalid theory was accepted. The mean distinction between exploratory gathering and control group was 7.95, paired 't' test was 17.94, which was highly significant at P<0.01. This showed that IEC package was viable and hence research hypothesis was acknowledged.

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