

Assessment of the knowledge, attitudes and practices of caregivers of elderly with Alzheimer's disease at selected hospitals of Hyderabad, Telangana.

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Abstract

Background: Alzheimer's disease is a chronic neurological disorder characterized by progressive and selective degeneration of neurons in the cerebral cortex and certain sub cortical structures. It is the leading cause of disability among older people, and there is no cure for it. Slightly more than half of Alzheimer's disease patients receive care at home from family and friends. Much of the burden of caring for patients with Alzheimer's disease falls on family members.

Aim: The aim of this study was done to assess the knowledge, attitude and practices (KAP) of care givers of elderly with Alzheimer's disease at selected hospitals of Hyderabad, Telangana.

Materials and Methods: This was a descriptive study which comprises of 70 care givers of elderly with Alzheimer's disease. The researcher developed questionnaire which included four sections to collect the data. Section-I addressed the demographic characteristics of the participants. Section-II addressed questionnaire on knowledge of care givers of elderly with Alzheimer's disease. Section-III addressed the rating scale on attitudes of care givers of elderly with Alzheimer's disease. Section-IV addressed questionnaire on practices of care givers with Alzheimer's disease. Descriptive and inferential statistics was used to analyze the data.

Results: The study revealed that 67.1% had good knowledge followed by 28.6% had average knowledge and only 4.3% had below average knowledge. Majority of the care givers had negative attitude towards taking care of the client and 28.6% of them were found to have positive attitudes. Most of the care givers showed to follow poor practice and only 4.3% showed to follow good practice.

Conclusion: There is a need felt for educating and supporting care givers of Alzheimer's disease. The study found that though the care givers were having good knowledge of Alzheimer's disease majority of the care givers opined that they feel stress to take care of the client and majority of them were found to follow poor practice. Hence, care givers need to be educated about the nature of the disease and its progression.

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I. Introduction

Aging is universal phenomenon and natural biological process of life cycle. The elderly experience changes in different aspects of their lives. It is obvious that people become more and susceptible to chronic diseases, physical disabilities and mental incapacities in their old age.

Alzheimer's disease is a progressive, irreversible, degenerative neurological disease that begins insidiously and is characterized by gradual losses of cognitive function and disturbances in behaviour and affect. The disease can affect anyone over 40 years of age, but it is most common in those over the age of 65.

The basic pathophysiological processes of brain damage that occur with Alzheimer's disease are not known. The most widely discussed and researched hypothesis about the cause of Alzheimer's disease is the amyloid cascade hypothesis. The strongest data supporting the amyloid cascade hypothesis comes from the study of early-onset inherited Alzheimer's disease. Mutations associated with Alzheimer's disease have been found in about half of the patients with early-onset disease. In all of these patients, the mutation leads to excess production in the brain of a specific form of a small protein fragment called A-Beta.

The pathophysiological hallmarks of the disease are specific neuropathological and biochemical changes found in patients with Alzheimer's disease. These include neurofibrillary tangles and senile or neurotic plaques. The degeneration of the neuronal cells occurs primarily in the cerebral cortex and results in decreased brain size. Similar changes are found to be a lesser extent in normal brain tissue of older adults. Cells principally affected by this disease are the ones that use the neurotransmitter acetylcholine. Biochemically, the enzyme active in producing acetylcholine is decreased. Acetylcholine is specifically involved in memory processing.

Alzheimer's disease not only affects the patient but it also affects the family members, because the chronic stress of watching a loved one slowly decline, affects everyone. Much of the burden of caring for

patients with Alzheimer's disease falls on family members, particularly spouses and adult children, predominantly female.

Alzheimer's disease patient care is long and hard. Care giving in such cases is intensive and prolonged. Many caregivers with Alzheimer's disease feels depressed, anxious and other health problems. Hence, caregivers need to be educated about the nature of the disease and its progression.

II. Methods

The research approach selected for the study was quantitative approach with descriptive design. The study was conducted in three settings --- Care Hospital, Asha hospital and The Red Cross – Nightingales Trust Dementia Day Care Center, Banjara Hills, Hyderabad. Data was collected from 1st April to 29th April 2018 by using purposive sampling technique. A formal permission was obtained from the three centers. Total 70 care givers participated in the study. In this study the target population was the care givers of elderly with Alzheimer's disease between the age group of 21 and above 50 years.

Sample Size

The sample size was 70 care givers of elderly with Alzheimer's disease.

Sampling technique

Purposive sampling technique was used to select the sample.

Tool for data collection

The tool was developed by the researcher which consists of four sections:-

Section-I addressed the demographic characteristics of the participants.

Section-II addressed questionnaire on knowledge of care givers of elderly with Alzheimer's disease.

Section-III addressed the rating scale on attitudes of care givers of elderly with Alzheimer's disease.

Section-IV addressed questionnaire on practices of care givers with Alzheimer's disease. Descriptive and inferential statistics was used to analyze the data.

Method of data collection

Data was collected by using structured interview schedule.

Procedure for data collection

Prior consent was obtained from the participants before the interview. The care givers were explained about the purpose of the study and ensured the anonymity and confidentiality and written consent was obtained from them. The participants were interviewed by using the questionnaires prepared by the investigator. Total duration of the interview was 40 minutes for each participant.

Data analysis

The collected data were analyzed and interpreted as per the objectives of the study by using descriptive and inferential statistical methods. Reliability of the tool was elicited by using test-retest method by using Pearson's correlation coefficient and it was found to be $r = 0.88$ which was reliable. Association between categorical variables was explored using Chi-square. $P < 0.05$ was considered statistically significant.

III. Results

The study revealed that majority (60%) of the care givers were above 50 years of age. 18.6% of them belong to the age group of 21-30 years and 17% of the sample belongs to the age group of 31-40 years. A very low percentage i.e. 4.3% of the sample was between the groups of 41-50 years. Majority (65.7%) of the care givers was females and only (34.3%) were males. Most (64.3%) of the care givers were graduates, (18.6%) of them had higher secondary education and (11.4%) had secondary education, (2.9%) had primary education and the remaining (2.9%) were illiterates. Regarding the religion of the care givers (65.7%) of them belongs to Hindu religion (14.3%) belongs to Muslim religion and (20%) belongs to Christian religion. Major part (90%) were having income above 15000 per month and the remaining (10%) were having income below 15000 per month. Regarding the relationship with the client (48.6%) of the participants were wives (18.6%) were daughters (17.1%) were sons and (15.7%) were husbands in relation. Regarding duration of illness (64.3%) of the client were suffering from Alzheimer's from <1year (25.7%) were suffering from 1-3 years (8.6%) were suffering from 4-6 years (1.4%) were suffering from >6years. Regarding the duration of taking care of the client (62.9%) of the participants were taking care of the client for <1year (27.1%) were taking care for 1-3 years (8.6%) and (1.4%) were taking care for 4-6years and >6years respectively.

The results of the study showed that out of 70 care givers of elderly with Alzheimer's disease, majority (67.1%) of the care givers have above average knowledge, (28.6%) have average level of knowledge and only (4.3%) have knowledge level below average. There is a significant association of knowledge with the educational status, family income and duration of the client.

Majority of care givers (47.1%) expressed that they feel stress sometimes to take care of the client, (28.6%) of care givers never feel stress to take care of the client and remaining (24.3%) of care givers expressed that they feel stress most of the times to take care of the client. There is significant association of attitude with the educational status and duration of taking care of the client.

Regarding practice, major part (52.8%) of the care givers showed to follow poor practice, (42.9%) showed to follow fair practice and only (4.3%) of the care givers showed to follow good practice. There is significant association of practice with the educational status and family income.

**Table 1 Participants' Socio Demographic Characteristics
n= 70**

Sl No	Demographic Variables	Frequency (f)	Percentage (%)
1.	Age of care givers		
	(a) 21- 30 years	13	18.6
	(b) 31- 40 years	12	17.1
	(c) 41-50 years	3	4.3
	(d) Above 50 years	42	60.0
2.	Gender		
	(a) Male	24	34.3
	(b)Female	46	66.7
3.	Educational Status		
	(a)Illiterate	2	2.9
	(b)Primary	2	2.9
	(c)Secondary	8	11.4
	(d)Higher Secondary	13	18.6
	(e)Graduation	45	64.3
4.	Religion		
	(a) Hindu	46	63.7
	(b) Muslim	10	14.3
	(c) Christian	14	20
5.	Family Income		
	(a) Below 5000	0	0
	(b)5001-10000	0	0
	(c)10001-15000	7	10
	(d)Above 15000	63	90
6.	Relationship with the Client		
	(a)Son	12	17.1
	(b)Daughter	13	18.6
	(c)Husband	11	15.7
	(d)Wife	34	48.6
7.	Duration of Illness		
	(a) <1 year	45	64.3
	(b) 1-3 years	18	25.7
	©4-6 years	6	8.6
	(d) >6years	1	1.4
8.	Duration of taking care of the Client		
	(a) <1 year	44	62.9
	(b) 1-3 years	19	27.1
	(c)4-6 years	6	8.6
	(d) >6years	1	1.4

The results of the study revealed that out of 70 care givers of elderly with Alzheimer's disease, majority (67.1%) of the care givers have above average knowledge, (28.6%) have average level of knowledge and only (4.3%) have knowledge level below average as shown in Table 2.

**Table 2 Knowledge Level of Care Givers of Elderly with Alzheimer's Disease
n= 70**

Level of Knowledge	Score Range	Frequency	Percent
Below Average	≤33.3%	3	4.3
Average	33.4% - 66.6%	20	28.6
Above Average	>66.7%	47	67.1

As shown in Table 3 majority of care givers (47.1%) expressed that they feel stress sometimes to take care of the client, (28.6%) of care givers never feel stress to take care of the client and remaining (24.3%) of care givers expressed that they feel stress most of the timesto take care of the client.

**Table 3 Attitude Level of Care Givers of Elderly with Alzheimer’s Disease
n= 70**

Attitude Level	Score Range	Frequency	Percent
Most of the times	≤6	17	24.3
Sometimes	7-13	33	47.1
Never	>13	20	28.6

Table 4 shows majority (52.8%) of the care givers showed to follow poor practice, (42.9%) showed to follow fair practice and only (4.3%) of the care givers showed to follow good practice.

**Table 4 Practice Level of Care Givers of Elderly with Alzheimer’s Disease
n= 70**

Practice Level	Score Range	Frequency	Percent
Poor	≤33.3%	37	52.8
Fair	33.4%-66.6%	30	42.9
Good	>66.7%	3	4.3

IV. Discussion

In this study total 70 care givers were participated. To determine the significant association of knowledge, attitudes and practices with selected variables Chi-square test was used. The calculated Chi-square value of demographic variable such as age, gender, religion, relationship with the client, duration of illness and duration of taking care of the client with Alzheimer’s disease (3.06, 2.06, 1.51, 3.6, 11.31, and 12.7) was not significant at 0.05 level of significant with knowledge scores. Other variables such as education and family income (59.5 and 12.9) have significant association with knowledge scores.

The calculated Chi-square value of demographic variable such as age, gender, religion, relationship with the client, duration of illness and duration of taking care of the client with Alzheimer’s disease (3.06, 2.06, 1.51, 3.6, 11.31, and 12.7) was not significant at 0.05 level of significant with attitude scores. Other variables such as education and family income (59.5 and 12.9) have significant association with attitude scores.

The calculated Chi-square value of demographic variable such as gender, religion, family income relationship with the client, duration of illness and duration of taking care of the client with Alzheimer’s disease (2, .87, 28.8, 11.12, 8.03, and 9.2) was not significant at 0.05 level of significant with practice scores. Other variables such as age and education (6.7 and 63.37) have significant association with practice scores.

V. Conclusion

The study attempted to assess the knowledge, attitudes and practices of care givers of elderly with Alzheimer’s disease and found that though the care givers were having good knowledge majority of the care givers expressed they feel stress to take care of the client and majority of them showed to follow poor practice in taking care of the client. Since there is no treatment option to cure Alzheimer’s disease it is much essential to improve and support the quality of life in patients, their families and their caregivers as much as possible. The burden on the care givers can be reduced by educating them on proper care and taking necessary measures toward protecting the care giver’s social life and psychological health.

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