Original Research Article

Knowledge Regarding Alzheimer's disease among Adults in Selected Urban Community of Jaipur City, With A View to Develop an Information Booklet

Dr. Mahipal Singh[1]*, Dr. Jogendra Sharma[2]
[1]Principal, Akhil Bhartai Vidyapeeth College of Nursing, Sikar, Rajasthan, India
[2]Dean Nursing Rajasthan University of Health sciences, Jaipur, Rajasthan, India

Abstract

Introduction: The aged have to cope-up with many physical and mental health problems with advancing age requiring constant attention. Depression, Hypertension, Arthritis, Dementia and Alzheimer's are highly prevalent among the aged. Alzheimer's disease is known to men only since 100 years, Alzheimer's disease is a form of dementia. Dementia is derived from the Latin word de – "apart, away" and "mens" – mind. Dementia is a progressive brain dysfunction which result in a restriction of daily activities and in most cases leads in the long term to the need for care. Dementia is the most feared and divesting disorder of late life. Current estimates reveals that there are about 18 million cases of dementia in the world and by 2025, there will be about 34 million suffering from dementia. The overall prevalence of dementia ranges from 5 percent to 7 percent. Alzheimer's disease is the most common dementing disorder accounting for 80 percent of all cases of dementia. *Material & Methods:* Anon-experimental, descriptivedesign was adopted to assess the knowledge of adult regarding Alzheimer's disease in a view to develop information booklet.The study was conducted on 100adults, who are in the age group of between 21 – 50 years from mansarowar area of Jaipur city, who fulfill the inclusion criteria for the study. Data was collected from Jan 2014 to August 2014.A structured interview schedule was used to assess the knowledge of Alzheimer's disease. *Results:* The data revealed that, there is significant association between level of knowledge and educational status, marital status and family .Major findings of study revealed that Out of 100 adults 16 percent had adequate knowledge 37 percent had moderate knowledge and 47 percent had inadequate knowledge on Alzheimer's disease. The overall mean value of the adult's knowledge regarding Alzheimer's disease was 53.9 percent; mean were 16.17 and standard deviation of 15.5. *Conclusion:* After the detailed analysis of this study shows that nearly 50% of population does not have adequate knowledge about Alzheimer's disease, hence information booklet will definitely help to increase their knowledge to facilitate better care for Alzheimer's disease.
Keywords: Alzheimer's disease, information booklet, Dementia.

INTRODUCTION

"You have to begin to lose your memory if only in bits and pieces to realize that memory is what makes our lives. Life without memory is our coherence, our reason, our feeling, our action, without it we are nothing." - Luis Buneul

Increases in life expectancy during the twenty first century have produced an aged population of an unprecedented size and longevity. Ageing leads to several biological changes that take place over time and results in progressive loss of functional capacity.

Dementing illness are the most common disorders among elderly and thought to be the fourth leading cause of death among adults in many developed nations following heart disease, cancer and stroke. Dementia robs the quality of not only the elderly, but also the family members who are forced to devote their lives caring for their impaired loved ones.

Very little is known about the prevalence of dementia outside the more developed countries. The idea that illness like Alzheimer's a disease of a rich developed nation is a myth. Alzheimer's disease can occur to any adult at any age. Women are three times more likely to be affected than men.

In Indian context prevalence of Alzheimer's disease is one in every five elderly citizens suffers from Alzheimer's. In Kolkata there are about 46,000 patients with Alzheimer's. In Delhi it accounts for about 50,000

Alzheimer's patient and in Bangalore there are 30,000 elderly patients suffering from Alzheimer's disease. Today in India 32,00,000 people are affected by dementia. The figure is expected to double every 20 years.

Werner P [1] carried out a study on knowledge about symptoms of Alzheimer's disease among 150 community dwelling persons aged over 45, who did not have a closed relative diagnosed with Alzheimer's disease, participated in the study, result found that participants knowledge about Alzheimer's disease found that participants knowledge about Alzheimer's symptoms overall, was fair, only a slight percentage reported memory problems to be symptoms of the disease. The study concluded the efforts to increase knowledge about Alzheimer's disease symptoms should be expanded with special attention to risk groups.

Laforce R Jr. and McLean S. [2] investigated in a study on knowledge and fear of developing Alzheimer's disease in a sample of healthy adults. Survey method was used. 127 young adult and 118 older adults participated. Younger adults obtained a score of 54 percent, while older adults obtained 58 percent on knowledge test. Knowledge and fear scores were not significantly correlated with having a family member or knowing someone with Alzheimer's disease.

Sullivan K [3] conducted a study on providing education about Alzheimer's disease. Improving carer's knowledge of Alzheimer's disease has been associated with benefits for carer well-being. This has led to recognition of the need to systematically evaluate dementia education tools. In this study dementia knowledge was measured before and after interventions designed to improve knowledge in a sample of 100 undergraduate students. Dementia education materials were selected from existing resources that are readily accessible and are recommended for use in clinical settings. Subjects were allocated to one of four conditions, including a control group. Subjects allocated to education conditions were asked to view a video on Alzheimer's disease, read written information about the disease or do both. Results showed that education improved knowledge of Alzheimer's disease, as measured by increased scores on a dementia knowledge questionnaire. This study has important implications for public education about dementia and resource allocation for service providers.

A study carried out by Ayalon L. Arean PA [4] on knowledge Alzheimer's disease in four ethnic groups of older adults. Participants were ninety six Anglo, 37 Latino, 30 Asian and 30 African American older adults completed a short survey about Alzheimer's disease. The result suggest that certain minority groups do not have sufficient information about Alzheimer's disease, and this may explain the lack of Alzheimer's disease service use by minorities.

MATERIALS & METHODS

A non-experimental, descriptive design was adopted to assess the knowledge of Adults regardingAlzheimer's disease in a view to develop information booklet. The study was conducted on 100 adults, who are in the age group of between 21 – 50 years from Mansarowar area of Jaipur city who fulfill the inclusion and exclusion criteria for the study.

The sample who met sampling criteria and available during the month of Jan 2014 to August 2014were selected as the subject for the study. They were selected by non-probability convenient sampling technique.In Phase I of the study, a descriptive survey approach was adopted to assess the knowledge of community people about Alzheimer's disease. In Phase II of the study instructional booklet was developed on Alzheimer's disease. Astructured interview scheduleon knowledge of Alzheimer's diseasewas developed which consists of 13 demographic and 30 questions for knowledge about Alzheimer's disease. **Section A:** This section contained (13) questions about the demographic profile of sample such as age, gender, educational status, marital status, occupational status, religion, monthly income, type of family, family size, source of information regarding Alzheimer's disease, family history of mental illness and family members suffering from Alzheimer's disease. **Section B:** This section contained (30) questions which includes meaning, definition, incidence, prevalence, etiology, signs and symptoms, investigations, management and rehabilitation. Each question has three options, in which one is the correct answer. Each correct answer was given a score of one and wrong answer zero.

The content validity of structured interview schedule on knowledge Of Alzheimer's disease was established by experts. The experts were selected on the basis of their clinical expertise, experience and interest in the problem being studied. They were from different specialties i.e. Psychiatry, Psychology, Education, Research, Statistics and Mental Health Nursing. They were requested to give their opinions on the appropriateness and relevance of the items in the tool. Necessary modifications were made as per the expert's advice. The reliability of the questionnaire was established by Split Half method and was found to be r-0.860.

A final study was carried out on 100 adults, who are in the age group of between 21 – 50 years from mansarowar area of Jaipur city, who fulfill the inclusion criteria for the study. Data were collected from 10th January 2014 to 29th August 2014. The sample for the study comprised of the adults, who met the designated criteria were selected through convenient sampling technique. Objectives of study was discussed and obtained consent for participation in study. Knowledge aboutAlzheimer's disease was assessed by administering a structured interview scheduleon

knowledge of Alzheimer's disease. Based on the objective and the hypothesis the data was analyzed by using various statistical tests i.e. percentage, mean, and standard deviation.Statistical methods The significance was be calculated by using mean, Standard deviation, unpaired t statistics, paired t statistics for comparison and the Chi-square statistics is used to find the independence of difference. Significance was accepted at 0.01 and 0.05 level of probability. And instructional booklet was developed for care with Alzheimer's disease.

RESULTS

Section I: Table 1: Frequency and Percentage distribution of respondents according to their family characteristics of respondents

The data presented in table 1 depicts the frequency and percentage distribution of respondents according to their family related characteristics of respondents. About 6 percent respondents were having the family history of mental illness and 94 percent respondents were not having family history of mental illness.

Regarding family member suffering from Alzheimer's disease, 2 percent respondents were having a family member suffering from Alzheimer's disease and 98 percent respondents were not having a family member suffering from Alzheimer's disease.

About the source of information regarding Alzheimer's disease 67 percent respondents were not having any source of information regarding Alzheimer's disease, 13 percent respondents were receiving source of information through magazine and newspaper, 11 percent respondents were receiving source of information through television and radio, 6 percent respondents were receiving source of information through family members and friends.

Section B: Area wise knowledge score of adults regarding Alzheimer's disease

This section deals with the analysis and interpretation of the data related to Alzheimer's disease knowledge of adults and ranking of knowledge scores. Thus helps in identifying the deficiencies in knowledge and to decide the priority needs of adults. Knowledge score of adults were obtained by structured interview schedule.

Table-1: Aspect wise mean knowledge of respondents regarding Alzheimer's Disease, *N=100*

No.	Aspects	Statements	Max Score	Range Score	Respondents Knowledge		
					Mean	Mean (%)	SD
I	Meaning & definition	3	3	0-3	1.87	62.2	29.7
II	Incidence & prevalence	2	2	0-2	1.00	50.0	39.1
III	Etiology	3	3	0-3	1.50	50.0	25.7
IV	Signs & symptoms	10	10	1-10	5.07	50.7	24.4
V	Investigation & management	12	12	1-12	6.73	56.1	20.0
	Total	30	30	9-26	16.17	53.9	15.5

Table-1 reveals the aspects wise of mean knowledge score of adults regarding Alzheimer's disease in different areas like meaning, definition, incidence and prevalence, etiology, signs and symptom, investigation and management are discussed. Findings show that the highest mean percentage 62.2 percent of knowledge score in the area of meaning definition of Alzheimer's disease. (SD of 29.7, mean 1.87), the least mean percentage of 50 percent of knowledge score is found in the area of incidence and prevalence and cause, (SD of 39.1, mean 1), (SD of 25.7, mean 1.50) in the area of signs and symptoms the mean percentage of knowledge score 50.7 percent (SD of 24.4, mean 5.07) in the area of investigation and management mean percentage of knowledge score. 56.1 percent (SD of 20, mean 6.73), total knowledge score mean percentage 53.9 percent, SD of 15.5, mean 16.17.

Table-2: Frequency and Percentage distribution of respondents according to their knowledge level on Alzheimer's disease, *N = 100*

Knowledge level	Respondents	
	Number	Percent
Inadequate (50 %)	47	47.0
Moderate (51-75 %)	37	37.0
Adequate (> 75 %)	16	16.0
Total	100	100.0

The data presented in Table-3 depicts the knowledge level on Alzheimer's disease, out of 100 respondents 16 percent were having adequate knowledge, 37 percent were having moderate

knowledge, and 47 percent were having inadequate knowledge on Alzheimer's disease.

Section C: The findings related to association between knowledge and selected demographic variables has been identified

Data shows there was a significant association found between educational level, marital status and family size but there was no significant association between other variables. They are age, gender, occupation, religion, income, type of family, source of information on Alzheimer's disease, family history of mental illness and family member suffering from Alzheimer's disease.

DISCUSSION

The Analysis of present study revealed inphase Ithat Majority of adults 39 percent were in the age group of 31 – 40 years, 34 percent were of 21 – 30 years, 27 percent were in the age group of 41 – 50 years. Thus it shows that the maximum number of adults participated in the study were in the age group of 31 – 40 years.The percentage distribution of adults according to gender reveals that majority of the adults 56 percent were male and 44 percent were female. Data represented show that maximum number 64% of adults were married, 18 percent were bachelor, 11 percent were spinster and only 7 percent were widow.The result indicates that the majority of adults 35 percent were educated up to high school, 34 percent were graduates, 22 percent adults were having education qualification till PUC. In the present study only 9 percent adults were post graduates. Data also revealed that 29 percent adult were private employees, 25 percent were housewives, 19 percent were business and only 11 percent were laborers.Results depicts that 68 percent of adult were belongs to Hindu religion, 19 percent were belongs to Christian religion, and 13 percent were belongs to Muslim religion.

The results also indicate that 49 percent of adults were found to be in the income group of Rs.5001 –10000 per month. 27 percent of adults were in the income group below Rs.5000 per month and 24 percent of adults belong to more than above Rs.10001 family income per month.Data depicts that 65 percent of adult were from nuclear family and 29 percent of adult from joint family.Data presented shows that 52 percent were of 3 – 4 members of family size, 36 percent were of 5 – 6 members of family size and 12 percent were of above 6 members of family size.Findings shows that the majority of adult 94 percent were not having family history of mental illness and 6 percent were having family history of mental illness.

Study revealed that majority of adult 98 percent did not have any family member suffering from Alzheimer's disease and only 2 percent had a family member suffering Alzheimer's disease.The data show that 67 percent adults did not have any source of information regarding Alzheimer's disease. 13 percent of adults were receiving source on information through magazines and newspaper and 11 percent of adult through Television and Radio. 6 percent of adults were receiving source of information regarding Alzheimer's disease through family members and friends.

The knowledge regarding Alzheimer's disease of adults was assessed by structured interview schedule. Out of 100 adults, 16 percent had adequate knowledge, 37 percent had moderate knowledge, and 47% had inadequate Alzheimer's disease. The overall mean percentage knowledge were 53.9 percent mean 16.17 with standard deviation of 15.5. These findings showed that most of the adults had inadequate knowledge regarding Alzheimer's disease.

There was significant association between knowledge scores of adults and selected demographic variable such as educational level (χ^2 = 23.44), marital status (χ^2 = 12.67) and family size (χ^2 = 9.99), as these obtained scores are more than the table value.

But there was no significant association between the knowledge score of adults and selected demographic variables such as age (χ^2 = 2.49), gender (χ^2 = 0.53) occupation (χ^2 = 5.85), religion (χ^2 = 5.11), income (χ^2 = 5.47), type of family (χ^2 = 5.79), source of information on Alzheimer's disease (χ^2 = 3.98), family history of mental illness and family members suffering from Alzheimer's disease are less than the table value.

In view of the nature of the present study and to accomplish the objectives of the study an information booklet was prepared on Alzheimer's disease.

Significance association clarifies that people those who are educated, married and lives in joint family may have better care with Alzheimer's disease then with the other people

Also from statistical analysis it is found that Instructional booklet is useful for all age groups, and education level.

Recent studies on knowledge of Alzheimer's disease is coincided with Laforce R Jr. and McLean S. [2] conducted a study on knowledge of healthy adults on Alzheimer's disease where his younger participants obtained a score of 54 percent.

CONCLUSIONS

The present study explore that there is inadequate knowledge among community people about

Alzheimer's disease. The correlation finding which was done to find the relationship with selected demographic variables, was done by using 't' test. Educating people on any disease by booklet have significant effect in improving their knowledge. The nurse may encounter many situation where planning for discharge and patient education at hospital, family and community at large can be carried out by her in best possible way by means like booklet or Instructional Module.

Implication & Recommendation

The findings of study have implication at various level of nursing like nursing practice, nursing education, nursing administration and nursing research in following ways:-

- When such booklet on each drug which have less cost and better effect for disease, are made will provide sound and comprehensive knowledge to practice better discharge planning and health teaching to patient. Thus will enable the client to care for self and to maintain regular follow up visits.
- Nursing education is developing rapidly in India. We are training nurses to achieve an International standard. To achieve high level of educational standards nursing education needs to be raised to a greater extent. This is achieved if all aspects of health needs are considered as a whole.
- The education curriculum must include preparation of such booklet. Diet plan, health teaching on various drugs, and disease as a project work to help them to learn about various methods of health teaching to their clients.
- Preparation of such project work can be included in the nursing education curriculum.
- Nurse administrator can utilize this type of booklet material to enhance in the knowledge of student and staff nurses. And also discharge planning and education to client can be done in better manner.
- There is a need for extended and intensive nursing research in the area of health education and discharge planning foe client to improve their knowledge for better compliance with treatment and to prevent relapse.

Keeping in view the findings of the study, the following recommendations are made:

- It is suggested that the study may be replicated using a larger population of the patients on Alzheimer's disease, for longer duration.
- A study can be done to assess the attitude and practices of caregivers knowledge on Alzheimer's disease.
- A study to assess the effectiveness of structured teaching programme on adults regarding Alzheimer's disease.
- A study can be conducted to assess the nurse's knowledge and attitude onAlzheimer's disease.

- A comparative study can be conducted to compare the rural and urban adults knowledge regarding Alzheimer's disease.
- A similar study can be conducted to assess the knowledge of caregivers on Alzheimer's disease.

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