

Assessment of Knowledge and Attitude Towards Alzheimer's Dementia Among Middle Aged Adults in Selected Rural Community

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Abstract

Background: Alzheimer's dementia is one of the common global health concerns among older population that can lead them towards disability and dependency^[1]. However, the knowledge and attitudes towards Alzheimer's dementia among middle aged adults remain unknown^[2]. This study assessed the knowledge and attitude towards Alzheimer's dementia among middle aged adults in rural community.

Objective: To assess the level of knowledge and attitude among middle aged adults towards Alzheimer's dementia and to associate the knowledge and attitude with selected demographic variables of middle-aged adults.

Methods: A quantitative descriptive study was conducted in rural community people in Poonjeri, Chengalpattu district, Tamil Nadu. A total of 210 respondents ranging from 36 to 55 years were selected using a non-probability systematic sampling method. Structured questionnaire was used to collect data in the study population to assess knowledge and attitude towards Alzheimer's dementia among them. The data collected were properly screened before they were analysed.

Results: A total of 210 participants, the majority 58.5% of participants were in the age group between 18-39 and most of them were female 71.1%. Study revealed that (62%) of middle-aged adults had moderately adequate knowledge (34%) had adequate knowledge and (2%) of middle-aged adults had inadequate knowledge regarding Alzheimer dementia and 81% had favourable attitude, whereas 15% of them had moderately favourable attitude and 2% had unfavourable attitude regarding Alzheimer's dementia. There was significant association between the demographic characteristics of gender (p value=0.006), marital status (p value=0.0001), educational qualification (p value=0.012), occupation (p value=0.0084) and type of health information (p value=0.0001). Demographic variables including gender (p value=0.0004), marital status (p value= 0.0061) and type of health information resources (p value=0.00001) were significantly associated with the attitude regarding Alzheimer's dementia.

Conclusion: The majority of middle-aged adults in selected rural community have positive attitudes towards patients with Alzheimer's dementia, and a significant number have moderately adequate knowledge of the same.

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Continuous health education is suggested to improve knowledge of dementia in this population. Furthermore, studies are recommended to understand the perception in the general population.

Key words: Alzheimer's dementia, knowledge, attitude, Middle aged adults, rural community

Introduction

Alzheimer's dementia is an organic brain disorder, characterised by the overall impairment in cognitive function, personality, intellect and memory [3]. It may progress from unnoticeable changes in brain, eventually leading to cognitive as well as physical disability [4]. Alzheimer's dementia is one of the common global health concerns among older population that can lead them towards disability and dependency [1]. In a group of people below 60 years of age, the incidence of AD can range from 0.1% whereas its 15 to 20% in age group of 80 years [3]. According to WHO, currently more than 55 million people in the world is affected with Alzheimer's dementia and every year, nearly 10 million new cases are reported. This number is expected to be more, up to 78 million by 2030 and by 2050 up to 139 million as the rate of older people among the population are increasing day-by-day [1]. Alzheimer's dementia is observed to begin even decades earlier before the occurrence of clinical features. Therefore, interventions are required focussing on various risk factors not only in non-demented patients but also among middle aged category of the population that may pave the way to prevent or delay the onset of Alzheimer's dementia. In developing countries, the prevalence of Alzheimer's dementia may continue to rise as the life expectancy is increasing [5]. Early identification of Alzheimer's dementia benefits not only for the patient, but also for the caregivers. Stressors that can affect individuals suffering from Alzheimer's dementia should be understood effectively so that necessary steps and care can be taken to improve their quality of life. Knowledge regarding Alzheimer's dementia has value for both patient and family. Based on a survey conducted in 2011, 84% of participants suggested that they would need to know if their loved ones had AD, 98% wanted any of their family member exhibiting symptoms of AD to see a doctor and 89% would themselves wanted to know whether they had AD. There is a need to encourage education on risk factors of Alzheimer's dementia and life style modifications required to prevent and cope up with Alzheimer's dementia. But perhaps most important

is that we need improve our attitude towards people affected with Alzheimer's dementia with love and compassion [6]. Although the knowledge about Alzheimer's dementia, risk factors, detection, prevention and diagnosis is improving knowledge about risk factors and potential prevention, detection, and diagnosis of dementia is improving, some gaps remains significant. Alzheimer's dementia affected population have many problems and needs in various domains [5]. Individualised interventions must be provided to the person as well as to their family and caregivers. Some of the researches provide the evidences that even short-term psychosocial support and interventions focussing on the patient's needs has helped in managing neuropsychiatric symptoms. Carers of Alzheimer's dementia can show reduction in certain symptoms of anxiety and depression if evidence-based interventions are given [7]. The researcher felt that the middle-aged adults are the future older adults. It is need for an hour to assess the level of knowledge and attitude regard to Alzheimer's dementia among middle aged adults (36-55 years) to have a better understanding about the disease condition, to adapt healthy lifestyle, to develop positive attitude and to protect themselves from Alzheimer's dementia.

Materials and Methods

A quantitative descriptive study approach was used for the study. The aim of the study was to assess the knowledge and attitude towards Alzheimer's dementia among middle aged adults. Quantitative descriptive survey research design was adopted for this study, which is a non-experimental research design used to obtain data with regard to its prevalence, distribution and interrelations. The study was conducted in Poonjeri village, Chengalpattu district, Tamil Nadu. The target population for this study was middle aged adults, who were in the age group of 36 to 55 years residing in Poonjeri village. Both male and female within the age of 36 to 55 years, who can read and write Tamil and English and available during the time of data collection period were included in the study. Whereas, middle aged

adults who were sick and known to have any mental illness were excluded from the study. 210 middle aged adults, who met the inclusion criteria were considered to be the part of the study population. Non- probability systematic sampling technique in which the participants were selected as per choice of the researcher was utilized in the study. The study tool contains three parts. Part 1 consist of the personal information of the participant such as age, sex, marital status, education, occupation, health information resources, family history of Alzheimer's disease. Part 2 is a self-structured knowledge questionnaire that contains 15 questions regarding Alzheimer's dementia. The total score for this session will be 15, in which each correct answer will be given 1 and wrong answers 0. Based on the scores obtained by the sample, their knowledge regarding Alzheimer's dementia was classified into adequate, moderately adequate and inadequate. Part 3 is a self-structured five-point Likert scale which includes 10 statements to assess the attitude regarding Alzheimer's dementia with five responses that has 7 positive and 3 negative statements. Each has 5 responses such as strongly agree, agree, neutral, disagree, strongly disagree. The attitude of the participant towards Alzheimer's dementia was assessed through their responses and classified them into favourable, moderately favourable and unfavourable based on the total scores obtain by each of them. The validity of the tool was established in consultation with guide and one expert in the field of psychiatric nursing, one expert in community health nursing and one expert in psychiatry medicine. The reliability of the structured interview schedule was established by testing for stability and internal consistency. Stability was assessed by test-retest method where Karl Pearson correlation of coefficient formula was used. The value was found to be reliable ($r=0.9$). The reliability of the five-point Likert scale was established by testing for stability and internal consistency. Stability was assessed by test-retest method; Karl Pearson formula was used. The value was found to be reliable ($r=0.9$).

Data Collection:

Prior formal permission was obtained from the head of the department of Mental Health Nursing, Institutional Human Ethics Committee Clearance was obtained from Chettinad Academic of Research

and Education for conducting the study. Pilot study was conducted in Poonjeri village, Chengalpattu district. Twenty-one participants were selected who fulfilled the inclusion criteria were selected for the pilot study. Non probability systemic sampling was used to select the samples. Rapport was established with the self-introduction to the participant and written consent was obtained from the participants to participate in the study. Instructions were given to the participants to answer the questionnaire frankly. Then the questionnaire was administered and responses of the participants were noted, for those who cannot read and write the investigator filled the questionnaire according to the response of the participant. The research study was found to be feasible based upon the pilot study. This helped in refining and validating the developed tools. The questionnaire was tested in 21 participants before actual data collection and modified on basis of received feedback. The investigators modified few aspects of the developed tool. Validity and reliability were re-established. The data collection was done in Poonjeri village, Chengalpattu district. The data was collected for a period of 1 week from 210 samples. Prior permission and consent was obtained from the participants before conducting the study. In this present study the researcher conducted interview for samples who met the inclusion criteria, for 20 minutes to collect data on personal information and self-structured knowledge questionnaire and attitude questionnaire to assess the level of knowledge and attitude regarding Alzheimer's dementia. The collected data was analysed and interpreted. The data was analysed using statistical instruments.

Analysis

It deals with the analysis and interpretation of data collected to assess the knowledge and attitude of middle-aged adults towards Alzheimer's dementia. Statistical analysis was done by using descriptive and inferential statistics. Data were entered into Microsoft Excel and all entries were cross-checked against the questionnaire. The categorical data was expressed as percentage, whereas the continuous data were expressed as mean \pm standard deviation. Correlation of knowledge score with attitude scores was done using correlation coefficient test. Chi-square test was used to test the association of different variables

with socio demographic data of the participants. A probability value of < 0.05 was considered as statistically significant. The data was presented under the following headings, Table 1: 1 Frequency and percentage distribution of middle aged adults according to their demographic variables, Table 2: Frequency and percentage of knowledge scores of adults regarding Alzheimer's dementia, Table 3: Frequency and percentage distribution of attitude scores of adults regarding Alzheimer's dementia, Table 4: Mean, SD of Adult's knowledge & Attitude score on Alzheimer's dementia among adults, Table 5: Correlation of knowledge and attitude scores among adults regarding Alzheimer dementia, Table 6: Association of knowledge scores regarding Alzheimer dementia with their selected demographic variables, Table 7: Association of attitude scores with the selected demographic variables of middle aged adults.

Findings

Table 1: Frequency and percentage of knowledge scores of adults regarding Alzheimer's dementia

n=210

Level of knowledge	F	%
Adequate Knowledge	73	35
Moderately Adequate Knowledge	132	63
Inadequate Knowledge	5	2
Total	210	100

Table 2: Frequency and percentage distribution of attitude scores of adults regarding Alzheimer's dementia

n=210

Level of attitude	F	%
Favorable attitude	172	82
Moderately favorable attitude	32	15
Unfavorable attitude	6	3
Total	210	100

Table 3: Mean, SD of Adult's knowledge & Attitude score on Alzheimer's dementia among adults

n=210

S. No	Variable	Mean	Standard deviation	Mean Percentage (%)
1.	Knowledge	9.85	1.9	70.3
2.	Attitude	38.11	4.2	81.09

Table 4: Correlation of knowledge and attitude scores among adults regarding Alzheimer's dementia

n=210

S. No	Variable	Mean scores	Co Efficient of co - relation
1	Knowledge	9.852381	0.2
2	Attitude	38.11429	

Discussion

In a total of 210 respondents, majority (32%) of adults were in the age group of 46-50 years followed by (31%) in 36-40 years, of age. About 54% of them were females (n=114) and less than half of them 45% were males (n=95) and only one (0.5%) belongs to transgender. Most of the most of middle-aged adults 74 (83%) were married and only 3(1.4%) of them were widow/widowed. More than half of the middle-aged adults 63 (30%) have high school education and 13 (6.2%) who were graduated and above. Majority 58(27.6%) of middle-aged adults had daily wages and

least percentage 19 (9%) of them were unemployed. Most of the them 86(41%) receiving health related information through television, newspaper and radio and 3(1.4%) of the middle-aged obtained information from health personnel. Majority 175 (83.3%) had no family history of dementia and 35(16.7%) of them had family history of dementia. The frequency and percentage of knowledge scores of middle-aged adults regarding Alzheimer's dementia shows that 63% of them had moderately adequate knowledge, 35% had adequate knowledge and 2% had inadequate knowledge. Demographic variables including gender (p value=0.006), marital

status (p value=0.0001), educational qualification (p value=0.012), occupational status (p value=0.0084) and type of health information resources (p value=0.0001) were significantly associated with knowledge of Alzheimer's dementia. Based on the frequency and percentage distribution of attitude scores of adults regarding Alzheimer's dementia, majority 172(82%) had favourable attitude, whereas 32(15%) of them had moderately favourable attitude and 6(3%) had unfavourable attitude regarding Alzheimer's dementia. Demographic characteristics including gender (p value=0.0004), marital status (p value=0.0061) and type of health information resources (p value=0.00001) were significantly associated with the attitude regarding Alzheimer's dementia. The mean score of middle-aged adults' knowledge and attitude regarding Alzheimer's dementia showed 9.85(SD \pm 1.9) and 38.11 (SD \pm 4.2). There is a positive correlation ($r = 0.55$) of knowledge and attitude regarding among adults. Further it could be inferred that knowledge and attitude depends on each other.

Conclusion

In this study, structured interview schedule was provided to the middle-aged adults fulfilling the inclusion criteria to determine their knowledge and attitude towards Alzheimer's dementia. The majority of the middle-aged adults of the rural community had favourable attitude towards Alzheimer's dementia and a significant number has moderately adequate knowledge of Alzheimer's dementia. Health education should be encouraged to improve further knowledge of Alzheimer's dementia. Continuous and persistent awareness using available resources should be enforced for the general population as a whole so that they will promptly respond towards Alzheimer's dementia, to prevent or delay its onset.

Conflict of Interest: Nil

Source of Funding: Self

Ethical Clearance: The UG Committee clearance and Institutional Ethical Committee clearance was obtained from CARE. Permission was from the HOD of Mental Health Nursing Department, Chettinad College of Nursing as well as from the HOD of Community Health CHRI. The purpose of the study was explained to the participants and their written consent was obtained before the beginning of the study. The participants were informed that they were free to withdraw from the study during any stage of the study period and the confidentiality of the data collected for the research purpose will be maintained and will be utilised only for the study purpose.

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