

AWARENESS OF DEMENTIA AMONG GENERAL POPULATION OF ISLAMABAD/RAWALPINDI

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ABSTRACT

Background: Limited data on dementia incidence and prevalence from Pakistan is available but there is no published data on dementia awareness in general population. **Objective:** To assess the knowledge and awareness about clinical aspects and treatment of dementia in general population of Islamabad/Rawalpindi area. **Materials & Methods:** Population based, convenient sampling survey was conducted via dementia knowledge questionnaire (DKQ) in Islamabad/Rawalpindi between January 2010 and March 2010. **Results:** A total of 1000 people participated in the survey. Six hundred (60%) were males. Mean age was 28.87 (± 11.8) years. Among the respondents 33.9% people were uneducated and 67.2% were educated. Brain was considered by 75.1% people to be the organ involved in dementia. Dementia was considered to be curable by 40.9% respondents. Almost half (49%) of the respondents did not know about the types of dementia; (26.9%) thought that there were three or more types. A large number (46.8%) thought dementia affects 20-70% of people over 65 years of age. Most respondents identified old age (52%) as the etiological factor, followed by hereditary factors (34.6%), stroke (32.8%) and alcohol use (30.3%). The most common symptom identified was memory problems (72.7%), followed by personality changes (36.5%) and speech problems (27%). **Conclusion:** There is inadequate knowledge about dementia in general population of Islamabad/Rawalpindi, specially the about the causes, prevalence and types of dementia. There is need for education campaigns targeted to increase public awareness of dementia.

INTRODUCTION

Dementia is a syndrome characterized by progressive cognitive decline sufficient to interfere in social or occupational functioning.¹ It represents a major public health challenge as a consequence of rapid increase in the aging population worldwide, especially in developing countries.² It has been estimated to affect 5-20% of individuals over age 65³, rising to about 39% in persons 90 - 95 year's old.⁴ Sixty percent of dementia patients live in developing countries, with the proportion expected to increase to more than 70% by 2040.⁵ With the advancement in treatment of dementia, it is important to recognize signs and symptoms so as to seek professional help earlier in the course of disease. Studies have shown that due to lack of knowledge

about dementia among patients and general population delays occur in recognition, diagnosis and hence management of dementia. One study conducted in United Kingdom showed that there was lack of knowledge of dementia in African Caribbean and South Asian families.⁶ Another study from United States that compared the knowledge of African Americans and Whites has shown that there was less awareness of facts about Alzheimer's disease in African Americans.⁷ Gaps in knowledge were also noted in one study conducted in general public of Japan⁸ and one in elderly population of Turkey.⁹ Factors associated with poor awareness include stigma about dementia, poor accessibility to local health and social services and language barriers in conducting formal cognitive assessments.^{6,10,11} A study from India has shown that

Table 1. Basic demographic characteristics of respondents

	Number	Percentage	p value
Mean Age (years)	28.87 ±11.8		0.02
Gender			0.14
Male	600	60	
Female	361	36.1	
Not mentioned	39	3.9	
Level of education			<0.001
Uneducated	339	33.9	
Educated	672	67.2	

Table 2. Dementia Knowledge Questionnaire (Correct answers are highlighted as italic and bold)

	Correct answers	Percentage
Basic knowledge (maximum score = 3)		
Q1. Which part of body is affected? (a) lungs; (b) <i>brain</i> ; (c) heart; (d) don't know	751	75.1
Q2. Mostly affects people aged? (a) 30–40 years; (b) 40–60 years; (c) >60; (d) don't know	345	34.5
Q3. Is there a cure? (a) yes; (b) <i>no</i> ; (c) don't know	259	25.9
Epidemiology (maximum score = 2)		
Q4. How many types? (a) one; (b) two; (c) <i>three or more</i> ; (d) don't know	262	26.2
Q5. Prevalence in over 65s (%)? (a) <5; (b) 5–20; (c) 20–50; (d) 50–70; (e) 50–100; (f) don't know	127	12.7
Etiology (maximum score = 6)		
Q6. Which factors can cause dementia?		
<i>Diet</i>	130	13
<i>Infection</i>	188	18.8
<i>Hereditary factors</i>	346	34.6
<i>Stroke</i>	328	32.8
<i>Alcohol</i>	303	30.3
Old age	526	52.6
Symptomatology (maximum score = 8)		
Q7. Dementia can affect following: (tick boxes)		
<i>Vision</i>	196	19.6
<i>Personality</i>	365	36.5
<i>Reasoning</i>	227	22.7
<i>Memory</i>	727	72.7
<i>Mobility</i>	134	13.4
<i>Speech</i>	270	27
<i>Incontinence</i>	111	11
<i>Life expectancy</i>	198	19.8

cognitive and behavioral problems are usually attributed to normal ageing process.¹² There are no studies from Pakistan but anecdotal experience suggests similar beliefs that people usually do not seek medical advice until the symptoms have advanced so much that patients have become completely dependant. There is dearth of knowledge regarding incidence and prevalence of dementia from Pakistan and there is no published data on dementia awareness in the general population. Islamabad is the capital and the tenth largest city of Pakistan with the highest literacy rate in the country of 87%.¹³ Rawalpindi is the adjoining twin city of Islamabad with the second highest literacy rate of 80%.¹³ We conducted this study to assess the knowledge and awareness about clinical and demographic aspects of dementia and its treatment in the general population of Islamabad/ Rawalpindi area.

METHODS

Our study comprised of a population based convenient sampling survey that was conducted via dementia knowledge questionnaire (DKQ) in Islamabad/ Rawalpindi between January 2010 and March 2010 through face to face interview and questionnaire filling. The DKQ assesses the basic knowledge i.e. if dementia is curable, age of onset and body part primarily affected, epidemiology, etiology and symptomatology of dementia. For each correct answer a score of 1 is awarded resulting in total maximum score of 19. Additional questions on age, gender, educational status and ethnicity were also asked. We have chosen DKQ as it has been previously validated in studies that assess care giver's knowledge about dementia and in assessment of knowledge of South Asian older people in Manchester, UK.^{3, 14}

Data was analyzed using SPSS version 10. Mean $\pm$ SD were used to calculate for continuous data. Descriptive statistics and Chi-square test were used for categorical data.

RESULTS

A total of 1000 people participated in the survey. Six hundred (60%) were male. Mean age was 28.87 (± 11.8) years. Educational background showed that 33.9% people were uneducated and 67.2% were educated (Table 1). Overall dementia knowledge was poor with a total median score of 5 and one score each in knowledge regarding basic, symptomatology and etiology of dementia.

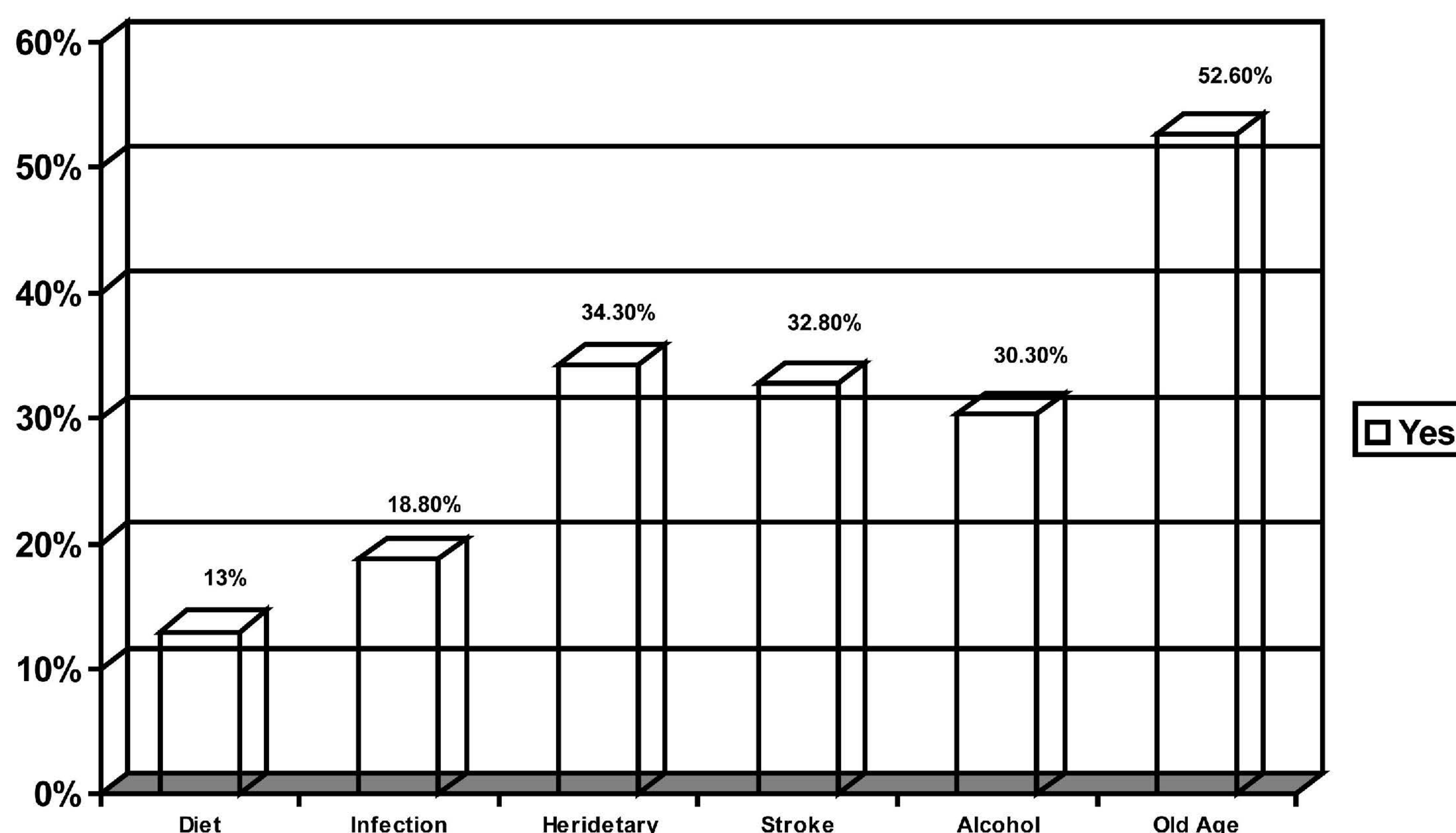
Almost half of the respondents did not know about the types of dementia, and a large number (46.8%) thought prevalence of dementia over 65 years of age was 20-70% (Table 2). The most common etiological factor identified was old age (52%), hereditary factors (34.6%), stroke (32.8%) and alcohol use (30.3%) (Figure 1). The most common symptom identified was memory problems (72.7%), personality changes (36.5%) and speech problems (27%). Low level of education and older age group were significantly associated with poor level of awareness ($p < .001$ and 0.02 respectively).

DISCUSSION

This is the first study that quantitatively assessed dementia awareness in our population. There is overall lack of knowledge about dementia especially about the basic features and epidemiology. Only 12% of people scored all questions correctly in basic knowledge. More than half (64.8%) did not know about the prevalence of dementia. Old age was considered to be the most common etiological factor (52.6%). About two-thirds of people knew more than two symptoms of dementia. Memory problems were identified as symptoms of dementia but majority people were unaware of personality changes, speech problems, reasoning and incontinence as symptoms. This is similar to what has been reported in previous studies.^{3,6,7} In one study that compared knowledge of dementia among South Asians and Caucasians found that the knowledge was poor in both groups except that old age was not reported as causative factor by South Asian cohort.³ In contrast to this, it was reported to be the most common etiological factor in our study. This may be because our people consider memory problems as part of ageing process and not as a medical problem which is similar to what is reported by Patel et al. from India.¹² Our cohort mainly comprised of younger age group. Level of education and age was significantly associated with dementia awareness in our cohort. There was no association with gender. This is contrary to what is reported from a Japanese study where middle aged women were found to be more knowledgeable than younger and older respondents.⁸

CONCLUSION

This is the first study from Pakistan that assesses awareness about dementia and it has shown that our people are not adequately knowledgeable especially about the types, causes and prevalence of dementia.



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