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A Critical Study on Awareness and Perception of Cognitive Decline in Patients with Alzheimer's Disease

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Abstract: Alzheimer's disease is a brain disorder that gets worse over time. It's characterized by changes in the brain that lead to deposits of certain proteins. Alzheimer's disease causes the brain to shrink and brain cells to eventually die. Alzheimer's disease is the most common cause of dementia a gradual decline in memory, thinking, behavior and social skills. These changes affect a person's ability to function. The science on risk reduction is quickly evolving, and major breakthroughs are within reach. For example, there is growing evidence that people who adopt healthy lifestyle habits like regular exercise and blood pressure management can lower their risk of dementia. There is growing scientific evidence that healthy behaviors, which have been shown to prevent cancer, diabetes, and heart disease, may also reduce risk for subjective cognitive decline.

Keywords: cognitive, breakthroughs, growing, management

Introduction:

India is home to 1.37 billion people, comprising 18% of the total world population in 2019, and is set to surpass China as the world's most populous country in 2023. Its population is also rapidly aging. The share of individuals aged 60 years or older is projected to increase to nearly 20% of the total Indian population by 2050 (319 million), accounting for 15.4% of individuals aged 60 and older worldwide. This demographic trend reflects rising longevity, as life expectancy in India has steadily increased from 42.9 years in 1960 to 70.4 years in 2020.

Because age is the strongest and best-known risk factor for dementia, India faces an alarming potential increase in the number of people with dementia. An accurate national estimate of dementia prevalence is essential to understand the magnitude of the challenge the country is facing. In the absence of a nationally representative study in India, the Alzheimer's and Related Disorders Society of India extrapolated dementia prevalence using estimates for South Asia reported by the 2015 World Alzheimer Report and six prior studies in Indian sub regions conducted in 2010.

Review of Literature:

A growing number of studies are currently investigating whether Subjective Cognitive Decline (SCD) could represent an early (mostly preclinical) indicator of AD. SCD is defined as a self-experienced persistent decline in cognitive capacity in comparison with a previous normal status and unrelated to an acute event, while age-, gender-, and education-adjusted performance on standardized tests is normal (Jessen et al., 2014). The idea that seems to prevail is that the expression of cognitive complaints can represent the first manifestation of AD prior to objective cognitive impairment. Results are rather conflicting but various studies have identified an increased likelihood of biomarker abnormalities consistent with AD pathology in individuals with SCD (e.g., ApoE ε4 allele overrepresentation in Abdulrab and Heun, 2008; abnormal amyloid levels in Wolfsgruber et al., 2015; regional hypometabolism in Mosconi et al., 2008; atrophy in Garcia-Ptacek et al., 2014). According to the most recent criteria of SCD (Jessen et al., 2020), individuals aged 60 years or over, persistently worried by a memory decline for at least 5 years, for which they have sought medical advice, and which is confirmed by an informant, would be more at risk of preclinical AD.

Some studies in recent years have attempted to go further in describing how patients with early-stage AD experience their progressive cognitive decline. It has recently been proposed that exhibiting a poor awareness of cognitive decline (ACD) could represent an early clinical indicator of the disease (Cacciamani et al., 2017). The lack of awareness of illness is indeed a known symptom of AD, especially in the dementia phase,

in which it goes under the name of *anosognosia*. Mograbi et al. (2009) added that AD mainly affects recent memories and predominantly spares older information about the self, since the oldest memories are located in the neocortex and therefore less dependent on hippocampus integrity. This amnestic pattern, together with executive dysfunction, would result in a petrified self-evaluation based on premorbid abilities (Kalenzaga and Clarys, 2013).

Research Design

Our long-term goals are to establish a nationally representative, community-based cohort of individuals (175) to provide valid estimates of dementia prevalence and incidence in the country. With these goals in mind, it is developed sampling strategy (purposive sampling method) and dementia assessment protocol.

Data Analysis

Socio-Economic Profile of the Respondents

S. No.	Characteristics		Frequency	Percentage
1	Gender	Male	103	58.8
2		Female	72	41.2
1	Age	50-55	26	14.8
2		56-60	97	55.4
3		61 and above	52	29.8
1	Educational status	Illiterate	49	28
2		Upto SSC	84	48
3		Degree	32	18.3
4		PG and Professional	10	5.7
1	Occupational status	Government job	36	20.6
2		Private job	45	25.7
3		Business	29	16.6
4		Labour	65	37.1
1	Religion	Hindu	79	45.1
2		Muslim	52	29.7
3		Christian	31	17.7
4		Others	13	7.5
1	Marital status	Married	117	66.8
2		Unmarried/Single Widows/Divorced	58	33.2
1	Types of family	Nuclear	98	56
2		Joint	56	32
3		Extended	21	12

The majority of the respondents are male 103 (58.8%), 97(55.4%) are taken from age group of 56-60, 84 (48%) of them belong to Upto SSC as educational status, 65 (37.1%) of the respondents taken from labour category under occupation, majority of the respondents 79 (45.1%) are taken from Hindu religion, 117 (66.8%) of them belong to married category and 98 (56%) of the respondents taken from nuclear family as a sample for this study.

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Perceptions of the Respondents:

1. Is the age risk factor for Alzheimer's?

S. No	Category	Frequency	Percentage
1	Yes	102	58.3
2	No	58	33.1
3	No Opinion	15	8.6
	Total	**175**	**100**

Alzheimer's usually affects people aged 60 years and over, with only 10%Trusted Source of cases occurring in people younger than this. The data indicating in the above table shows that the majority of the respondents 102 (58.3%) perceived that age is the risk factor for Alzheimer's where as 58 (33.1%) of the said that age is the not risk factor for Alzheimer's and only 15 (8.6%) of the respondents not given any answer for this question.

2. Do you know the clinical stages of Alzheimer's and Brain changes behaviours?

S. No	Category	Frequency	Percentage
1	Yes	61	34.9
2	No	97	55.4
3	No Opinion	17	9.7
	Total	**175**	**100**

The following are the 7 clinical stages Trusted Source of Alzheimer's disease. Normal, Prodromal stage, mild cognitive impairment (MCI), Moderate dementia, Cognition, Severe dementia and nearing death. According to the above table the majority of the respondents 97 (55.4%) agreed that they don't know the clinical stages of Alzheimer's and Brain changes behaviours however 61 (34.9%) of them said that they know the clinical stages of Alzheimer's and Brain changes behaviours and remaining 17 (9.7%) of them are silent about this issue.

3. Do you know the life expectancy for Alzheimer's?

S. No	Category	Frequency	Percentage
1	Yes	83	47.4
2	No	70	40
3	No Opinion	22	12.6
	Total	**175**	**100**

According to the Alzheimer's Association, on average, a person with the condition will live four to eight years after diagnosis. Depending on other factors, though, they may live as long as 20 years. The numbers mentioned in this table reveals that the majority of the respondents 83 (47.4%) know the life expectancy for Alzheimer's but 70 (40%) of them agreed that they don't know the life expectancy for Alzheimer's and rest of the 22 (12.6%) of them not responded.

4. **Were Blueberries could be used to fight Alzheimer's?**

S. No	Category	Frequency	Percentage
1	Yes	71	40.6
2	No	86	49.1
3	No Opinion	18	10.3
	Total	**175**	**100**

The details mentioned in this table reveal that nearly half of the respondents 86 (49.1%) given negative response for this aspect however 71 (40.6%) of them agreed that Blueberries could be used to fight Alzheimer's and last 18 (10.3%) of the respondents are unaware of this question.

Blueberries are a popular fruit, easily added to cereals, salads and desserts or eaten as a sweet treat in their own right. They are also known by some as a "super food," containing a wide variety of nutrients that offer protection against conditions such as cancer and heart disease. Now, researchers believe that they may have a part to play in the fight against Alzheimer's disease. Krikorian reports that those who had the blueberry powder demonstrated an improvement in both cognitive performance and brain function in comparison with those who received the placebo.

5. **Is Drinking Tea could help stave off cognitive decline?**

S. No	Category	Frequency	Percentage
1	Yes	88	50.3
2	No	57	32.6
3	No Opinion	30	17.1
	Total	**175**	**100**

The data presented in this table indicating that half of the above respondents 88 (50.3%) given positive opinion about drinking tea could help stave off cognitive decline however 57 (32.6%) of them given negative response about this aspect and rest of the 30 (17.1%) of them have no answer.

Its high levels of antioxidants, tea have been linked to a lower risk of diabetes, heart disease, and cancer. However, its potential health benefits may not end there. Researchers have found that regular tea consumption could more than halve the risk of cognitive decline for older adults, particularly for those with a genetic risk of Alzheimer's disease. Compared with adults who rarely drank tea, those who consumed tea regularly were found to have a 50 percent lower risk of cognitive decline.

6. **Is a 'simple, inexpensive lifestyle measure' could prevent dementia?**

S. No	Category	Frequency	Percentage
1	Yes	100	57.1
2	No	46	28.3
3	No Opinion	29	16.6
	Total	**175**	**100**

The details given in this table reveals that majority of the respondents 100 (57.1%) agreed that simple, inexpensive lifestyle measure could prevent dementia whereas 46 (28.3%) of them did not agreed the above aspect and last 29 (16.6%) of the respondents did not given any answer.

According to the World Health Organization (WHO), around 47.5 million people Trusted Source worldwide are living with dementia, and there are around 7.7 million new cases of the condition every year. By 2050, it is estimated that the number of people living with dementia will have risen to 135.5 million.

7. **Is Mediterranean diet may slow cognitive decline, prevent Alzheimer's?**

S. No	Category	Frequency	Percentage
1	Yes	79	45.2
2	No	68	38.8
3	No Opinion	28	16
	Total	**175**	**100**

The data represented in the above table indicating that majority of the respondents 79 (45.2%) opined that Mediterranean diet may slow cognitive decline, prevent Alzheimer's however 68 (38.8%) of them given negative opinion for this question and remaining 28 (16%) of them have no response.

A new review concludes that a Mediterranean diet is good for the brain, after finding that people who follow the diet are less likely to experience cognitive decline and develop Alzheimer's disease. The Mediterranean diet is considered by many as the best eating plan for a healthy heart, with numerous studies showing it can lower the risk of heart disease by reducing levels of low-density lipoprotein (LDL) or bad cholesterol.

8. **Is Dancing may help to combat brain aging?**

S. No	Category	Frequency	Percentage
1	Yes	87	49.7
2	No	69	39.4
3	No Opinion	19	10.9
	Total	**175**	**100**

The details according to this table shows that nearly half of the respondents 87 (49.7%) agreed that dancing may help to combat brain aging but 69 (39.4%) of them did not agreed and rest of the 19 (10.9%) of the respondents are silent about this aspect. This is the take-away message from a new study, which found that physical activity in later life particularly dancing can help to reverse the signs of brain aging. It is note that physical activity varied between each group; while the dance group faced new routines every week, the activities of the strength-endurance training group were repetitive.

9. **Is Alzheimer's disease Racial and Ethnic problem?**

S. No	Category	Frequency	Percentage
1	Yes	92	52.6
2	No	58	33.1
3	No Opinion	25	14.3
	Total	**175**	**100**

The data mentioned in this table shows that the majority of the respondents 92 (52.6%) agreed that Alzheimer's disease Racial and Ethnic problem but 58 (33.1%) of them said that Alzheimer's disease is not a hereditary and remaining 25 (14.3%) of the respondents are neutral. Scientists do not yet fully understand what causes Alzheimer's disease. There likely is not a single cause but rather several factors that can affect each person differently.

10. Do you have support for family and friends?

S. No	Category	Frequency	Percentage
1	Yes	114	65.1
2	No	49	28
3	No Opinion	12	6.9
	Total	**175**	**100**

The figures depict in the above table shows that an overwhelming majority of the respondents 114 (65.1%) agreed that they support for family and friends whereas 49 (28%) of them said that did not have support for family and friends and last 12 (6.9%) of the respondents are silent about this aspect.

Currently, many people living with Alzheimer's disease are cared for at home by family members. Care giving can have positive aspects for the caregiver as well as the person being cared for. It may bring personal fulfillment to the caregiver, such as satisfaction from helping a family member or friend, and lead to the development of new skills and improved family relationships.

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11. **Do you feel that Alzheimer's disease is death burden?**

S. No	Category	Frequency	Percentage
1	Yes	107	61.1
2	No	54	30.9
3	No Opinion	14	8
	Total	**175**	**100**

The details represented in this table shows that the majority of the respondents 107 (61.1%) feel that Alzheimer's disease is death burden however 54 (30.9%) of them did not feel that Alzheimer's disease is death burden and rest of the 14 (8%) of the respondents have no answer. Alzheimer's disease is one of the top 10 leading causes of death, the 6th leading cause of death among adults and the 5th leading cause of death among adults aged 65 years or older.

12. **Do you know the difference between dementia and Alzheimer's?**

S. No	Category	Frequency	Percentage
1	Yes	56	32
2	No	99	56.6
3	No Opinion	20	11.4
	Total	**175**	**100**

The data indicated in this table shows that the majority of the respondents 99 (56.6%) they don't know the difference between dementia and Alzheimer's whereas 56 (32%) of them agreed that they know the difference between dementia and Alzheimer's and last 20 (11.4%) of the respondents are neutral. Dementia is an umbrella term for a range of conditions that involve a loss of cognitive functioning. Alzheimer's disease is the most common type of dementia. It involves plaques and tangles forming in the brain. Symptoms start gradually and are most likely to include a decline in cognitive function and language ability.

Death rates for Alzheimer's disease are increasing, unlike heart disease and cancer death rates that are on the decline. Dementia, including Alzheimer's disease, has been shown to be under-reported in death certificates and therefore the proportion of older people who die from Alzheimer's may be considerably higher.

- Currently more than 55 million people have dementia worldwide, over 60% of who live in low-and middle-income countries.
- Dementia results from a variety of diseases and injuries that affect the brain. Alzheimer disease is the most common form of dementia and may contribute to 60–70% of cases.
- Dementia is currently the seventh leading cause of death and one of the major causes of disability and dependency among older people globally.
- In 2019, dementia cost economies globally 1.3 trillion US dollars, approximately 50% of these costs are attributable to care provided by informal carers (e.g. family members and close friends), who provide on average 5 hours of care and supervision per day.

- Women are disproportionately affected by dementia, both directly and indirectly. Women experience higher disability-adjusted life years and mortality due to dementia, but also provide 70% of care hours for people living with dementia.

Conclusion:

Dementia is a syndrome that can be caused by a number of diseases which over time destroy nerve cells and damage the brain, typically leading to deterioration in cognitive function (i.e. the ability to process thought) beyond what might be expected from the usual consequences of biological ageing. While consciousness is not affected, the impairment in cognitive function is commonly accompanied, and occasionally preceded, by changes in mood, emotional control, behavior, or motivation.

Dementia has physical, psychological, social and economic impacts, not only for people living with dementia, but also for their caregivers, families and society at large. There is often a lack of awareness and understanding of dementia, resulting in stigmatization and barriers to diagnosis and care.

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