Journal of Population Therapeutics & Clinical Pharmacology

RESEARCH ARTICLE
DOI: 10.53555/jptcp.v31i6.6307

KNOWLEDGE, ATTITUDE AND MANAGEMENT OF DEMENTIA

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ABSTRACT:

Background: Current estimation of dementia presume that age associated prevalence of dementia will not vary over time, however, the risk of dementia increases in older people. The basis for this assumption is uncertain, and gradual increase or decrease in prevalence over long period of time is reasonable.

Primary objective: To assess the awareness, knowledge, incidence and prevalence of dementia among the "Young Educated community of Pakistan".

Method/Design: We carried out a descriptive systemic study of trends in incidence and prevalence of dementia among the "University students of Pakistan". A validated questionnaire was distributed among participants. The respondent's knowledge of dementia was assessed by 30 questions designed to examine their knowledge, incidence, prevalence and treatment modalities of dementia.

Setting: The study was designed to determine the incidence and prevalence of dementia among the young educated community of Pakistan i.e., the university students.

Participants: 200 people participated in the study.

Interventions: Among the participants, 66.7% were female and 33.3% were male.

Primary outcome measures: Primary outcomes were knowledge, awareness and epidemiology.

Results: Among the 200 students who participated in the study, minority of the respondent population was going through it, 65.2% had never gone through it whereas, 30.8% of the respondents were not clear about it.

Conclusion: Population ageing seemed to play the greatest role as a cause of dementia and the incidence and prevalence of dementia among the university students was relatively low.

Keys words: Dementia, prevalence, knowledge, outcomes

Introduction

Dementia is defined by chronic, acquired loss of two or more cognitive abilities caused by brain disease or injury. Dementia is a clinical syndrome with variable manifestations which help attribute the cause of dementia and guide management (Zoe Arvanitakis et al; 2019). Mild cognitive impairment (MCI) is characterized by performance that is lower than normal but with maintained daily functions (e.g., maintained abilities to function within society such as for daily activities at work, home, and in social settings, and maintained activities of daily living such as for personal care) (Bart Sheehan et al; 2012). MCI can be categorized into "amnestic" MCI, in which reduced performance on memory is the key finding, versus "non-amnestic" MCI, in which reduced cognitive performance is in a non-memory domain such as language. MCI can also be characterized into "single domain" and "multi-domain" MCI, in which multiple cognitive performance measures are impaired. MCI does not always progress to dementia, and a patient's cognitive status may become normal or fluctuate between MCI, normal cognition, and dementia (Raj C. Shah et al; 2019).

Types of dementia:

The most common types of dementia include:

1) Alzheimer's Disease:

This is the slow onset in gradually progressive loss of memory typically with inability to learn new information such as recent events in one's life.

2) Vascular Dementia:

It is a step-wise presentation, sometimes noticeable after an episode of illness, or an operation (Prof Martin et al; 2014).

3) Mixed Alzheimer's/Vascular dementia:

It is the combination of both earlier types, in which each illness augmenting the other so that the end result is greater than the sum of its parts

4) Frontal Lobe Dementia/Pick's disease/ Progressive Aphasia:

In Primary Progressive Aphasia, the meaning of language is maintained 13 but speech becomes sticky. Other features of Alzheimer's Disease may later develop.

5) Dementia in Parkinson's Disease:

In Lewy Body dementia, dementia comes first and 'Parkinsonism' often develops later - although often without tremor.

6) Young Onset Dementia:

This is generally defined as when the age of onset is under 65 (Dr Elizabeth et al; 2014).

Prevalence:

Worldwide, approximately 47 million people have dementia and this number is expected to increase to 131 million by 2050. In the US, the prevalence of dementia is 15% in people older than 68 years. Dementia is most commonly attributed to Alzheimer's disease (AD), with over five million people currently affected by AD, and 13.8 million are projected to be affected by the year 2050.AD is the 6th leading cause of death, and the 5th leading cause among persons older than 65 years (Prince et al; 2016).

The aging of the US population is expected to lead to a large increase in the number of adults with dementia, but some recent studies in the US and other high-income countries suggest that the age-

specific risk of dementia may have declined over the last 25 years. Clarifying current and future population trends in dementia prevalence and risk has important societal implications (S. Russell et al; 2017).

Epidemiology:
Epidemiological studies suggests that 58% of those affected lived in low- and middle-income countries, underlining the high impact of the condition in those regions, where awareness is low, health and social care are poorly developed and social protection is limited. Population ageing is the main driver of projected increases however, age-specific prevalence would remain constant (W. Achterberg et al; 2020).

Dementia is seriously disabling for those who have it and is often devastating for their caregivers and families. With an increasing number of people being affected by dementia, almost everyone knows someone who has dementia or whose life has been touched by it (Prof Emiliano et al; 2014). The number of people living with dementia worldwide is currently estimated at 35.6 million. This number will double by 2030 and more than triple by 2050.The epidemiological studies aim to encourage country for strengthening or developing policy and implementing it through plans and programs which enhance dementia care in order to improve the social well-being and quality of life of those living with dementia. The studiesinclude an overview of global epidemiology and the impact of dementia, national-level approaches to dementia including the role of health and social care systems and workforce, issues around caregiving and caregivers, and awareness raising for dementia (WHO; 2012).

Methodology:
Objective: To gather information on knowledge, attitude and management of dementia in university students of Pakistan, that can be used for research purpose.

Study location:
Data for research purpose was collected from university students of Pakistan.

Study population:
This study targeted 200 students from universities of Pakistan and received their responses. Respondents were medical and non-medical students. The domains covered were age, gender, attitude, knowledge and management of dementia. This approach was quick and practical in terms of financial aspect.

Sampling criteria:
Sampling of this study have following criteria:

Inclusive criteria:
Students studying in any university of Pakistan, belonging to any department met the inclusive criteria.
Those who can understand English language were included.
Those who are interested to coordinate.

Exclusive criteria:
School and college going students were excluded.
Those who didn’t meet any inclusive criteria were also excluded.

Sample size:
This survey is limited to university students of Pakistan only. The sample size for this study is 200.

Data collection:
Firstly, approval from institutional review board is required. Then data collection for research purpose is done by survey method, in which questionnaire is prepared and distributed among students.
Data analysis:
Data analysis is quantitative. For this purpose, findings from the study were shifted to software i.e., EXCEL where data is analyzed, presented in graphs showing percentages and frequencies.

Results:
We conducted a study on university students in Pakistan with a sample size of 200 students that tracked incidence and prevalence of dementia. Following data was collected during the research (Howard H et al; 2008).

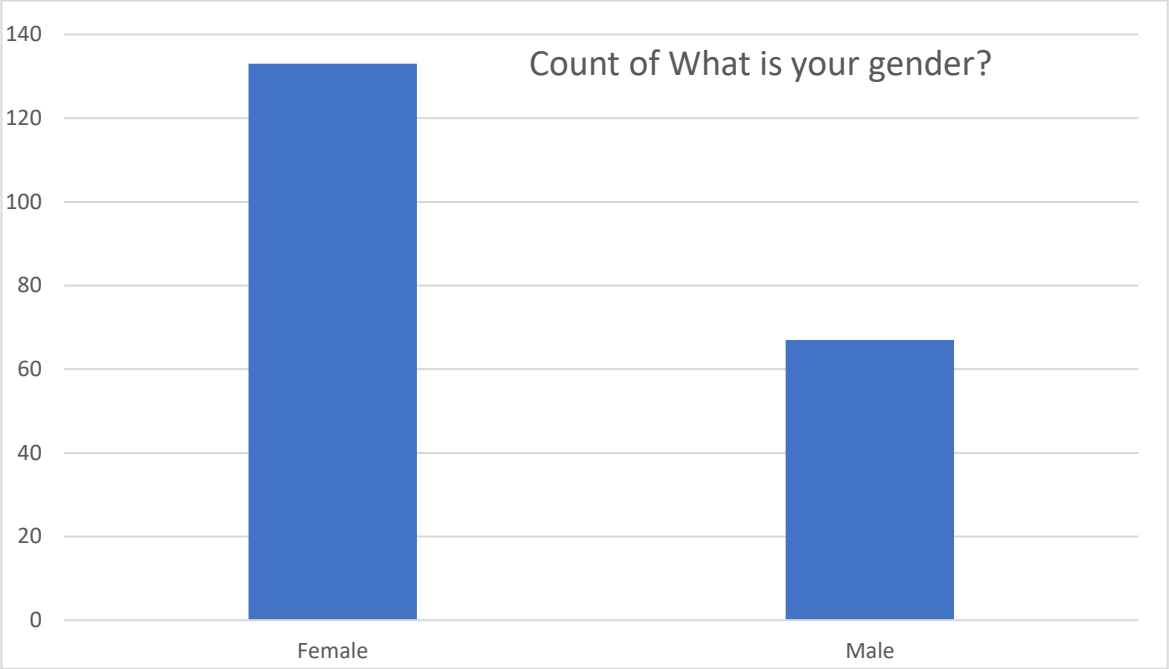

Fig 1; Count of gender

66.7% of the respondent students were female whereas, 33.3% were male.

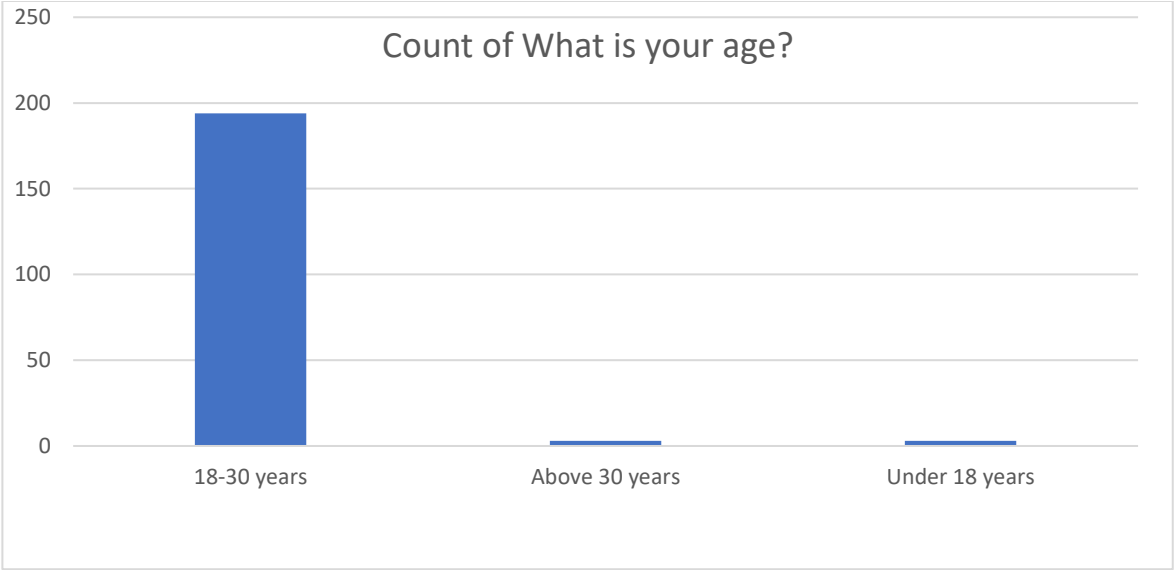

Fig 02; Count of age

97% of the respondent students were between 18-30 years while rest were either below 18 years or above 30 years.

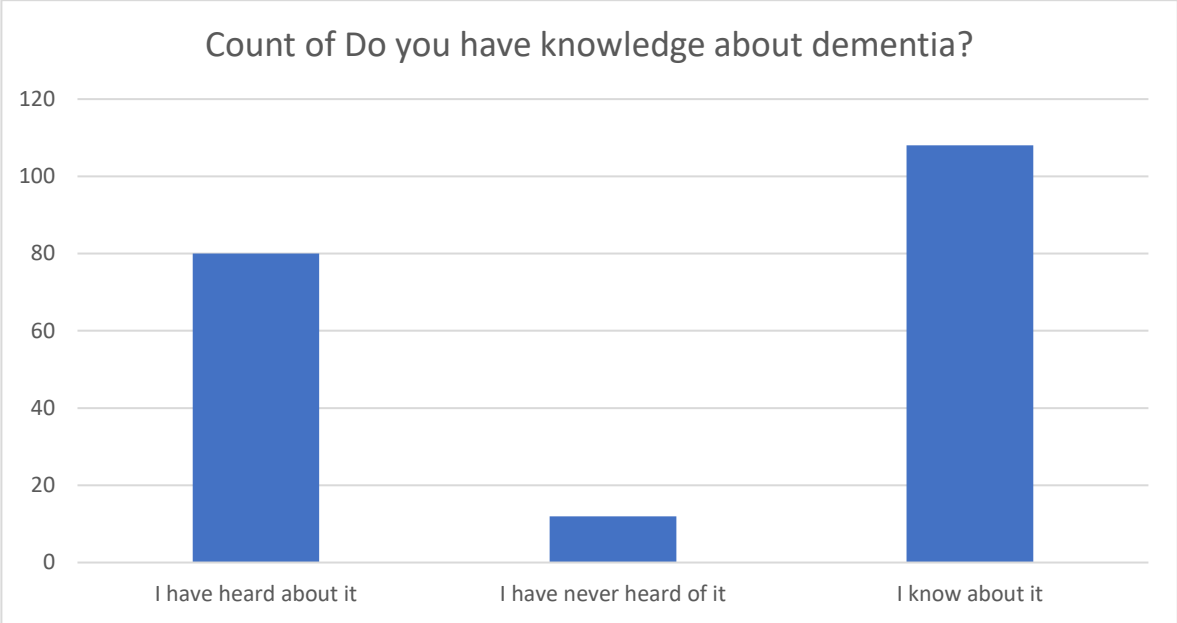

Fig 03; People having knowledge about dementia

54.2% of the respondent students knew about dementia while 39.8% have had heard about it, wheras, 6% had never heard about it

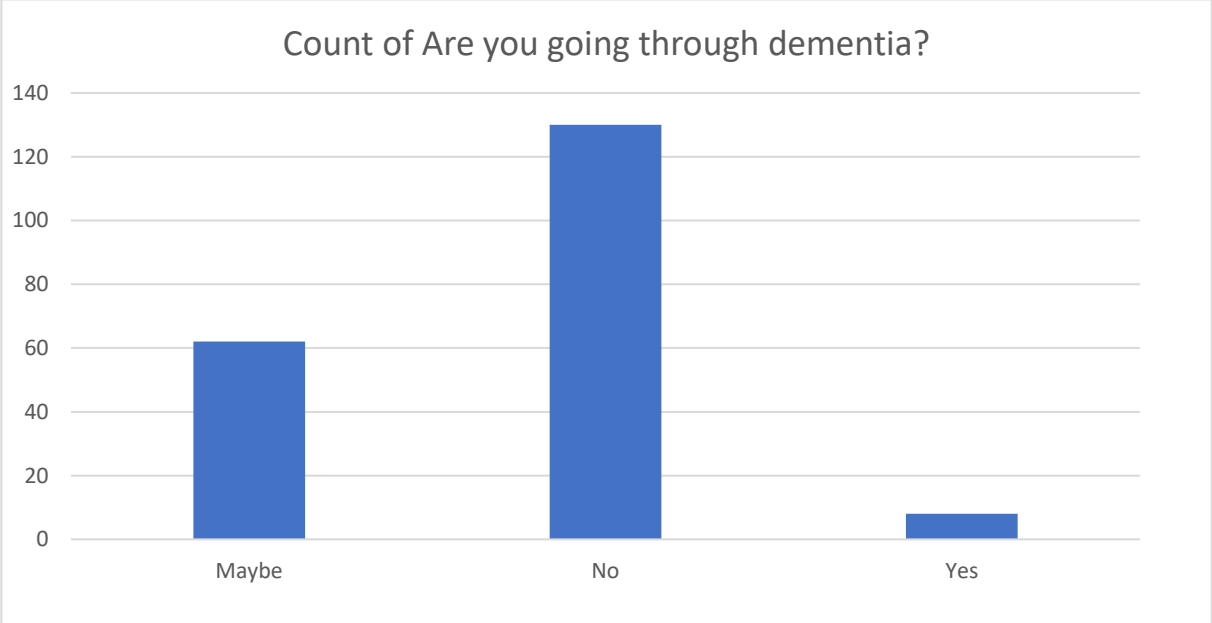

Fig 04; People going through dementia

Minority of students were going through it, while 65.2% of students had never gone through it, whereas, 30.8% of students were not clear about it.

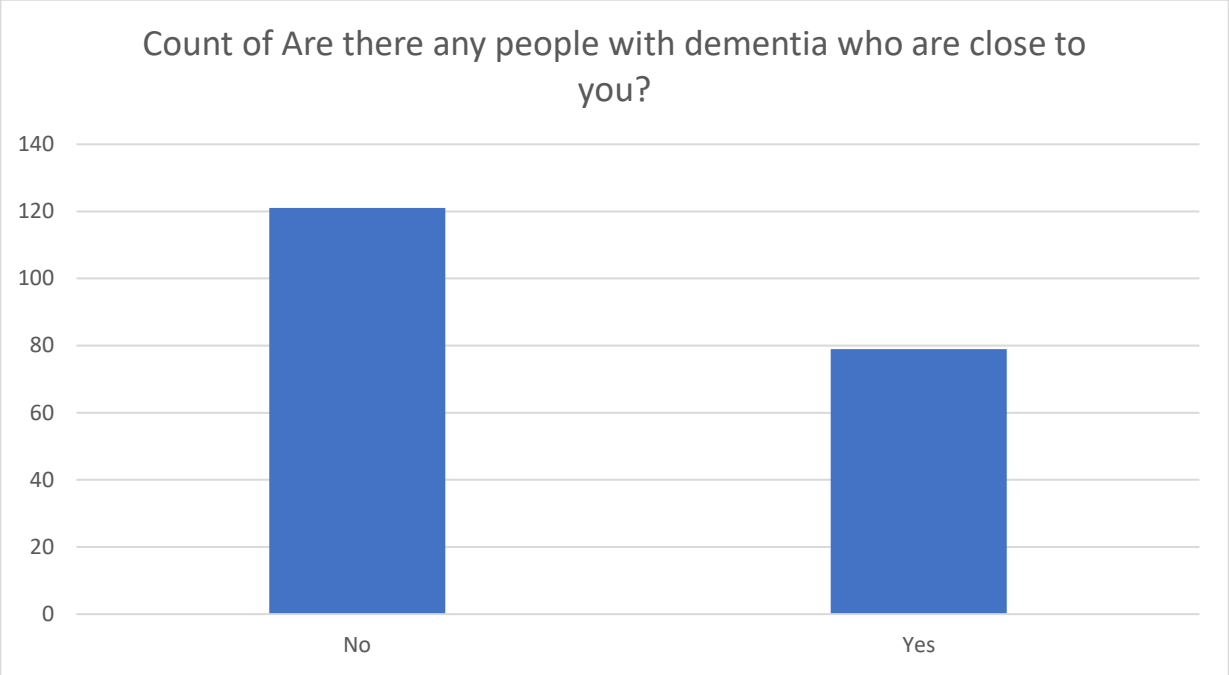

Fig 05; People whose close ones are going through dementia

60.7% of the respondent students had no dementia patients close to them whereas, 39.3% had.

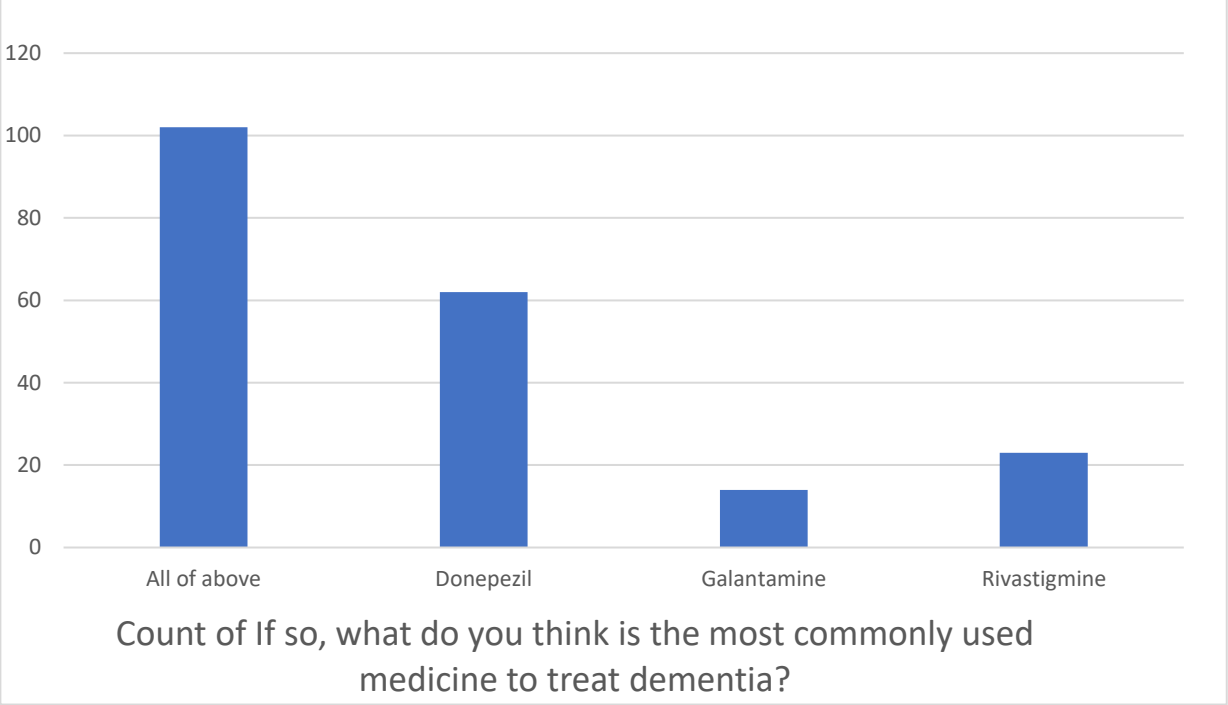

Fig 06; People having knowledge about treatment of dementia

50% of the students thought of all of these medications could treat dementia, while, 31.3% thought only of Donepezil, 11.6% thought of Rivastigmine and 7.1% thought of Galantamine.

Discussion:

We have updated our recent work on trends in the prevalence and incidence of dementia, using data from various studies in which the researchers had observed these measures over time in defined populations with fixed survey on dementia by various methodologies. We also reviewed regional systemic review in which investigators had estimated regional trends in prevalence across studies,

conducted in various sites and using varied methods. The present review is the most comprehensive study conducted specifically among the university students in Pakistan. There is no clear evidence from this review to justify a withdrawal from the current position of presuming constant age-specific dementia prevalence when making predictions of the numbers likely to be affected in the future. The evidence for a declining trend in the incidence of dementia, at least in high-income countries, is somewhat more compatible, although still varying, and as yet lightly evidenced. Although the evidence on changes in survival in those with dementia is extremely little, it reasonable that the effects of a reduced incidence upon prevalence are likely to be counterbalanced by a longer survival of those living with dementia (Prince et al; 2013).

The future route of the global dementia epidemic through to 2050 is likely to depend, at least to some extent, upon the success or otherwise of ongoing efforts to improve public health. Those who will be aged and older in 2050 were born around the 1970s and have already received their basic education. They are now in their fourth and fifth decades of life, in which evidence suggests that efforts to prevent diseases such as obesity, hypertension, and diabetes are probably to have maximum positive effect on dementia risk in later life. Such public health strategies, along with improvements in education, are more likely to result in a noticeable decline in age-specific incidence of dementia in higher income countries, the magnitude of which is currently uncertain (Arlene et al; 2019).

Whether the decreasing incidence is coexisted by a decline in the age-specific prevalence of dementia will depend upon any coincident changes in survival patterns of people living with dementia, which are difficult to foretell on the basis of current data. If the onset of dementia occurs close to the end of the natural lifespan, fewer years may be lived with dementia. Two studies suggest that decline in incidence may be greater in younger age groups, suggesting that the incidence of dementia maybe being delayed into older age (Zoe et al; 2019). This may be compatible with the observation of an increasing prevalence of dementia among the oldest old in one Swedish study, but it is incompatible with the observation from the MRC CFAS study of greater reductions of dementia prevalence among older age groups. Since most of the public health interferences that have been proposed to reduce the incidence of dementia (for example, tobacco control, and prevention and treatment of hypertension) also has benefits in reducing incidence and mortality due other chronic diseases. Most of the more feasible outlines are more consistent with either a stable or bashfully increasing disease prevalence. Of concern is the current evidence of unfavorable trends in cardiovascular risk factors and morbidity in low- and middle-income countries are accordant with a future increase in age-specific incidence and prevalence of dementia in those regions (Bettina et al; 2020).

Other factors, such as improvements in standards of health and social care for people with dementia, might also be anticipated to have an influence on mortality rates among people living with dementia. In well-resourced, advanced healthcare systems, there is growing awareness that critical interferences should not be retained simply because someone has dementia when these would improve quality of life. At the same time, the focus should be on palliation to improve quality of life, and mediations that entirely prolong life. In low and middle-income countries, there is evidence that people with dementia currently have particular problems in approaching healthcare that might benefit their health and quality of life (Martin et al; 2016).

Future predictions may actually turn out to be unprogressive, particularly for low- and middle-income countries, if effective public health action not be taken. Under current scenarios, they should be considered as inaugurating the mid-range of expectations. More research into national and regional trends in disease frequency, should however be made (Laura et al; 2010)

Conclusion:

AD is the most common cause of dementia which is usually associated by other neuropathology. Population ageing seems to play the major role. Management should include both pharmacological and non-pharmacologic approaches, although effectiveness of both the treatments remains limited. The ADI report for 2050 is of serious concern, but it is important to keep in mind that they are just projections (Dr Elizabeth et al; 2014). The opportunity is to ensure that the outlook for dementia in 2050, especially in low-income and middle-income countries (Hannah et al; 2013). More research on

national and regional scale in disease frequency, linked to changes in exposure levels to already known risk factors, is immediately required. After all, to tell about dementia and those who suffer with this disease, also show who we they really are (WHO; 2012).

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