ORIGINAL ARTICLE

PREVELANCE OF MYTHS ABOUT DEMENTIA AMONGST DOCTORS; A COMPARISON BETWEEN PSYCHIATRISTS AND NON-PSYCHIATRISTS

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ABSTRACT: BACKGROUND: Dementia is a neuropsychiatric disorder with a steadily increasing prevalence. A complex etiology, varied clinical manifestations and the lack of diagnostic biological tests makes it a difficult condition to diagnose in the early stages. A delay in the diagnosis eventually denies the patient an early and effective treatment. The awareness of the clinical features and recent advances in its management strategies in the evaluating doctor thus, assumes great significance. **OBJECTIVES:** To study the prevalence of myths about dementia amongst the doctors and compare the same between psychiatrists and non-psychiatrists. **MATERIALS AND METHODS:** Based on the myths enumerated by Cummins et al; in their book- Dementia a Clinical Approach; a 10 item questionnaire was prepared to assess the prevalence of myths amongst the doctors. This was then distributed amongst various specialist doctors attending a CME program. The data obtained was divided into two groups; psychiatrists and non-psychiatrists for statistical analysis. The responses between the two groups were compared and analyzed using the chi-square test. **RESULTS:** A total of 352 doctors out of the 372 doctors surveyed responded and were included in the study. Of these 248 were Psychiatrists and 104 were non-Psychiatrists [20 from Internal Medicine, 10 Neurologists, and 91 Allopathic General Practioners]. 67 % of non-psychiatrists and 66% of psychiatrists had at least 4 myths regarding dementia. The two most commonly held myths were; a) dementia is a state of global cognitive impairment [79%] and b) memory impairment is a must for the diagnosis of dementia [64.5%]. These two most commonly held myths are closely associated with the diagnostic criteria for dementia. As regards these two common myths there was no significant difference amongst the two groups compared. **CONCLUSIONS:** Our study highlights the urgent need to educate the doctors about the recent developments and the varied clinical presentations of the different types of dementias. There is also a need to clarify the diagnostic criteria and terminologies for dementia.

KEYWORDS: Dementia, Dementia myths, Dementia myths in doctors, Dementia myths in psychiatrists, Dementia myths in non-psychiatrists.

INTRODUCTION: Dementia is a syndromal disorder presenting with multiple cognitive impairments. The disorder significantly impacts the quality of life of the affected individual and his family. With the changing sociodemograhic patterns globally, the incidence and prevalence of dementia is steadily increasing. The World Health Organization reports that 36.5 million people were suffering from this illness at the end of 2011.[1] As regards India, the Delphi consensus study has projected that 4.47 million people would have dementia by the end of 2016.[2] Globally

the prevalence rate is expected to double every twenty years so that by the end of 2050, 1 out of every 85 people would be suffering from dementia.[3] Brookenmeyer et.al estimate that if the disease is detected and treatment is initiated at least a year early, then the prevalence would be less by 9.5 million people [and almost all in the high risk group] by the end of the same period.[3] With its steadily increasing prevalence and impact on the health services dementia can no longer be ignored.

Focus now lies on diagnosing the illness at an early stage; if possible in the preclinical stage. This paradigm shift is seen in the new research guidelines recommended by the National Institute on Aging and the Alzheimer Association.[4] It is now believed that Alzheimer's disease begins many years, before the first clinical signs set in.[4] However, till disease specific and sensitive biomarkers are found, the cornerstone for diagnosis remains a good clinical history, and the various diagnostic criteria. Of the diagnostic criteria, the main in use are the DSM IV TR,[5] ICD-10[6] and the criteria from the National Institute for Neurologic and Communicative Disorders and Stroke – Alzheimer's disease and Related Disorders Association.[7] However these diagnostic criteria have their limitations and are not uniform. Highlighting the deficiency of the DSM IV TR criteria, Cummins et.al have defined operational criteria for diagnosis of Dementia.[8]

In a systematic review of literature done by Bradford et.al; to ascertain the prevalence of, and factors contributing to the missed and delayed dementia diagnosis in primary care; one of the key factors identified by them was provider or physician lack of awareness or education about dementia.[9] The difference in prevalence in the various studies reviewed by Bradford et al; has been attributed mainly to the difference in the definition of 'personality changes' and the prerequisite of 'memory impairments' for the diagnosis. The definition of other intellectual functions has had little effect on the prevalence rates. Thus the presence of these variations in the diagnostic criteria has also impacted the prevalence studies of dementia.[10] Primary care physicians also lack knowledge about normal changes with aging and about the varied signs and symptoms in the early stages of dementia. This is harmful as, the treating doctors also are known to influence the attitude of caregivers towards their patient.[11]

Dementia is now a global epidemic. To limit the strain on resources, both financial and human, it is imperative that the diagnosis be made at the earliest possible stage. This is, in turn, dependent on the physician's awareness about the diagnostic criteria and the signs and symptoms in the early stages. With this background we decided to study the knowledge about dementia or the prevalence of myths about dementia, among specialists, psychiatrists and general practioners. This would help in determining the focus areas for doctor education and thus contribute to early diagnosis and treatment initiation in dementia.

METHODOLOGY: Based on the myths enumerated by Cummins et al; [Table 1] in their book-Dementia a Clinical Approach[8] we prepared a 10 item questionnaire. [Appendix 1] The respondents were required to answer in either True or False for every item. Ethical committee approval was taken for conducting the study from the institutional ethics committee of the parent institute.

The questionnaire was then distributed among various specialist doctors attending a continuous medical education program as a pre-conference questionnaire. Anonymity was

ensured in collecting the data. 372 doctors were given the questionnaire. Of these 20 doctors did not respond. A total of 352 doctors responded and were included in the study. Of these 248 were psychiatrists and 104 were non-psychiatrists [20 from Internal Medicine, 10 Neurologists, and 91 Allopath General Practioners].

From the data collected, the total numbers of incorrect [table 2] and correct [table 3] responses to each item and by each respondent were obtained. Using the total of incorrect responses for each item the most common myth to the least common myth was obtained. The median for the incorrect responses was calculated to arrive at average number of myths held by the doctors. [Table 2]

The data was then divided in two groups- namely; psychiatrists and non-psychiatrists to see whether the knowledge levels were any different amongst them. The myths in these two groups were compared and analyzed using the chi-square test, to find the significance of differences if any among these two groups. [Table 3]

1	Dementia is a "global" impairment of intellectual function
2	Dementia must impair memory.
3	Dementia always impairs insight; patients who are aware of their deficits do not have dementia.
4	Dementia is a "cognitive" disorder and never primarily a "behavioural" disorder.
5	Dementia is an inevitable part of aging.
6	Dementia is synonymous with "senility".
7	Dementia is synonymous with Alzheimer's disease or a related neurodegenerative disorder.
8	Dementia is necessarily a progressive disorder.
9	Dementia cannot have an acute onset.
10	Dementia is an untreatable disorder.

Table 1: Myths mentioned in "Dementia a Clinical Approach" by Cummins et al.

RESULTS and DISCUSSION: Only 8 respondents [6 psychiatrists and 2 neurologists] could answer all the items correctly.4 out of the 10 items was correctly answered by all the neurologists [Items 5, 6, 9 and 10 on the questionnaire].The median for the incorrect responses for both the groups was 4. 67 % of non-psychiatrists and 66% of psychiatrists had at least 4 myths regarding dementia. 23.5% or a little less than one fourth of the respondents held more than 5 myths about the illness.

Number of incorrect responses	Specialist Group		Total
	Psychiatrist	Non-Psychiatrist	
0	6	2	8
1	12	4	16
2	34	6	40
3	30	21	51
4	50	24	74
5	62	18	80
6	24	14	38
7	16	10	26
8	8	3	11
9	2	0	2
10	4	2	6
Total	248	104	352

Table no 2: Item wise incorrect responses between the two groups.

The two most common prevalent myths were closely associated with the diagnostic criteria for dementia. The ICD 10 and DSM IV TR criteria require impairment in at least three cognitive domains, with memory been one of them for the diagnosis of dementia. 79% of the respondent doctors believed that dementia is a state of global cognitive impairment. 64.5% of the doctors believed that memory impairment is a must for the diagnosis. Both these myths were slightly more prevalent amongst the psychiatrists. However no significant difference in responses, in both the groups was observed. The newly formulated AIA-NIH criteria, have laid down guidelines for amnestic and non-amnestic types of Alzheimer's dementia.[12] The DSM V has now categorized the dementias as neurocognitive disorders. As per the new criteria laid down memory impairment is not a necessary requirement for the diagnosis of neurocognitive disorders.[13] It has further suggested that significant impairment in one cognitive domain only would be sufficient for the diagnosis of neurocognitive disorders. On the background of these changes the two most common myths indicate a lack of awareness amongst doctors on these recent developments and also a lack in conceptual clarity about the criteria.

ITEM NO	QUESTION	CORRECT RESPONSE			SIGNIFICANCE {p Value}
		PSYCHIATRISTS % [n= 248]	NON PSYCHIATRISTS % [n=104]	TOTAL % [n=352]	RIGHT RESPONSE
1	Dementia is necessarily a global impairment of intellectual	19.35 [48]	24.04 [25]	20.73 [73]	0.318

	function				
2	Dementia must always impair memory.	31.45 [78]	45.19 [47]	35.51 [125]	0.015
3	Dementia always impairs insight; patients who are aware of their deficits do not have dementia	75.81 [188]	68.26 [71]	73.57 [259]	0.147
4	Dementia is a disorder with cognitive decline without behavioral changes in early stages	41.94 [104]	22.12 [23]	36.07 [127]	< 0.001
5	Dementia is an inevitable part of aging.	75 [186]	60.58 [63]	70.73 [249]	< 0.001
6	Dementia is synonymous with senility.	87.10 [216]	83.65 [87]	86.07 [303]	0.402
7	Dementia is synonymous with Alzheimer's disease or a related neurodegenerative disorder	60.48 [150]	66.35 [69]	62.21 [219]	0.336
8	Dementia is necessarily a progressive disorder.	33.06 [82]	45.19 [47]	36.64 [129]	0.336
9	Dementia can have an acute onset	74.19 [184]	64.42 [67]	71.30 [251]	0.336
10	Dementia is a treatable disorder.	75 [186]	75 [78]	75 [264]	0.336

Table 3: Item wise correct response amongst psychiatrists and non-psychiatrists with p value

Fronto-temporal dementia or dementia of Lewy body may present with behavioral disturbances in the early stages. Onset of a first episode of altered behavior in late life may herald the onset of neurocognitive impairments. About 64% of the doctors were not aware of this fact. They believed that dementia is associated with cognitive decline without behavioral

disturbances in the initial stage. It was however seen that the psychiatrists were significantly more aware of this fact than the non-psychiatrists. [p <.001] The high level of awareness in psychiatrists can be attributed to the fact that they are the ones who more commonly deal with behavioral disturbances.

The fourth most common myth amongst all was that dementia is necessarily a progressive disorder [item no 8 on the questionnaire]. It was shared by over 63.5% of the respondents; without there been any significant differences in the responses amongst the psychiatrists and the non-psychiatrists. However it was observed that it was the neurologists and psychiatrists, who tend to err more frequently on this statement. These two groups of specialists who most commonly deal with dementia probably tend to err because in clinical practice majority of the cases of dementia are progressive in nature. However this is not the rule. At times it may remain static or plateau off.[8]

Dementia is a state of multiple cognitive impairments and based on the etiology and the clinical presentation there are different types of dementias. 38% of the doctors however tend to equate the term dementia with Alzheimer's or a related neurodegenerative disorder giving rise to the next common myth. There was no significant difference in the responses between the two groups. The prevalence of this myth along with the other less prevalent ones [table 3] indicates the lack of knowledge and conceptual clarities and negative attitude about this illness even amongst the medical fraternity. A study by Liu et.al, reports that, non-trained physicians had significantly stronger negative views about dementia.[14] This lack of knowledge has been shown to be contributory to the delayed diagnosis in the studies by Bradford et.al.[10] and Philips et.al.[15] Similarly the belief that dementia is inevitable with aging and it is not a treatable disorder again reflects the lack of conceptual clarity and negative attitude towards dementia amongst the doctors. Bradford et al.[10] and Philips et al.[15] have also pointed out how these negative attitudes contribute to the reluctance on part of doctors for an early diagnosis.

CONCLUSION: There is an urgent need to educate the doctors about the recent developments with regards the diagnostic criteria of dementia. Emphasis must be laid on making the doctors aware on the varied clinical presentations and different types of dementias. Doctors also need to be sensitized to the various treatment options available and the effectiveness of these, especially if the diagnosis is made in the early stage.

LIMITATIONS: The study evaluates the prevalence of only a pre-determined set of myths in doctors. Presence of any other myths was not assessed in the study. Although the neurologists appear to be more aware about the various aspects about the illness, the sample size of neurologists is too small to comment on the significance of the difference in the myth patterns in them as compared to other specialist doctors.

APPENDIX 1:

Kindly answer the following questions by answering either Y [Yes] or N [No]:

1) Dementia is a global impairment of intellectual function.
2) Dementia may not always impair memory in the early stage.

3) Dementia always impairs insight; patients who are aware of their deficits do not have dementia.
4) Dementia is a disorder with cognitive decline and behavioral changes in early stages.
5) Dementia is an inevitable part of aging.
6) Dementia is synonymous with senility.
7) Dementia is synonymous with Alzheimer's disease or a related neurodegenerative disorder.
8) Dementia is not necessarily a progressive disorder.
9) Dementia can have an acute onset.
10) Dementia is a treatable disorder.

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