

Full length research paper

# Attitudes of Psychiatry Residents and Undergraduate Medical Students from Turkey toward Handling of Dementia in Psychiatry Clinics

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**We aimed to investigate the attitudes of medical clerkship students towards dementia and its management the context of psychiatry practice. There were 90 psychiatry residents from two different mental health hospitals and 90 undergraduate medical students who had finished both neurology and psychiatry clerkships from Medical Schools of Cerrahpasa and Marmara. Forty percent of the psychiatry residents believe that “neurologist must treat dementia because, it is a brain disease” and 34% of them suggested neurologic management rather than psychiatric care because of brain involvement. Surprisingly, 35.6% of residents prefer neurological management of dementia to psychiatric care at initial phases. These attitudes were more striking among medical students: 82.5% of them preferred neurological management “because dementia is a brain disorder” and 76.5% of them justified this preference because “brain regions are involved in dementia”; 63% of medical students have a thought that “psychiatrists are unaware of dementia types than dementia due to Alzheimer’s disease”. Although there is growing evidence of neuroscience psychiatry on the basis of brain studies, the medical students prefer neurodegenerative disorders with known etiologies to be handled in neurological cares.**

**Keywords:** dementia management, attitude, residency, undergraduate students, education

## Introduction

Generally, disorders with unknown etiology fall into the province of psychiatry while some disorders with ascertained etiology such as central nervous system disorders accepted in the field of neurology (Reynolds *et al.*, 2009). In Turkey, the practice of neurology and psychiatry is completely separate although mutual clinical rotation is an obligatory during residency. However, a deeper understanding of the pathogenesis of the neuropsychiatric disorders via many contemporary tools

such as imaging, genetics, neurophysiology, epidemiological studies (Reynolds *et al.*, 2009), might give a potential way of bridging these two disciplines at least at some degrees. The population aged 65 years or older receives more attention from medical practice and dementia poses major challenges for health systems (Toot *et al.*, 2012). Recently, old age psychiatry has been established as an independent specialty in many European countries although the training varies from non-training to well-formed training and education programs (Toot *et al.*, 2012). In addition, some guidelines, residency educational programs for primary care have been developed in some countries to improve dementia detection, handling and management (Perry *et al.*, 2010),

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however the knowledge, practice and training of specialists in geriatric population remain limited (Struck *et al.*, 2005). Furthermore, whatever thought in residency might soon become obsolete, incomplete or even incorrect as the researches and clinical practices evolve (Dunstone, 2010). Thus, it seems a valuable goal of the current survey to characterize and compare the general views of psychiatric residents and medical students on dementia management by an inquiry based design.

## Methods

There were 90 psychiatry residents from two different mental health hospitals and 90 undergraduate medical clerkship students who had finished both neurology and psychiatry clerkships from Medical Schools of Cerrahpasa and Marmara. Upon giving written informed consent for enrolling in the study and after a brief socio-demographic question list, all participants were asked to fill out a questionnaire that was prepared by the authors of the current study. This research was performed in accordance with the Helsinki Declaration's criteria. The participants who had psychiatric history or who had first degree relatives with psychiatric disorders other than dementia, the students who have not finished neurology and psychiatry clerkships were excluded. Assessment questionnaire was consisted of 12 questions which were about the attitudes of medical students towards dementia care such as in which clinical settings or which medical specialists should handle dementia. The questions were made up by the authors via reading the related literature findings and debates. The inquiry has 5 point Likert scale; 1= definitely agree, 2=agree, 3=neutral, 4=disagree, 5=definitely disagree. Statistical analysis was performed with SPSS for Windows version 16.0 (SPSS Inc. Chicago, Illinois, USA). Data were shown by descriptive and frequency analyses and data were compared with chi square test and student's t test. A p value <0.05 was accepted as statistically significant.

## Results

There were 90 psychiatric residents and 90 undergraduate clerkship medical students in the study. There was no significant difference according to gender between groups ( $X^2 = 0.980$ ,  $p = 0.322$ ) (51 male vs. 44 male) and (39 female vs. 46 female) respectively. The psychiatry residents were significantly older than medical students ( $29.34 \pm 3.29$  vs.  $24.23 \pm 1.21$ ;  $p \leq 0.001$ ). The mean duration of residency was  $2.67 \pm 1.42$  years. There were 18 residents who have relatives with dementia while 19 clerkship psychiatric students have relatives with dementia ( $X^2 = 0.004$ ,  $p = 0.949$ ). Forty percent of the psychiatry residents believe that "neurologist must treat dementia because, it is a brain disease" and 34% of them

suggested neurologic management rather than psychiatric care because of brain involvement. Surprisingly, 35.6% of residents prefer neurological management of dementia to psychiatric care at initial phases. Additionally, 47.7% of psychiatry residents supported to neurologic management even after the occurrence of behavioral problems in dementia. These answers were more striking when the respondents were medical students: 82.5% of them preferred neurological management "because dementia is a brain disorder" and 76.5% of them justified this preference because "brain regions are involved in dementia"; 63% of medical students have a thought that "psychiatrists are unaware of dementia types than dementia due to Alzheimer's disease". In addition, the medical care of neurologists was strongly suggested by 65% of the students for the initial phase of dementia in which memory complaints have been believed to be more prominent. Significantly fewer residents had a belief that "neurologist must treat dementia because it is a brain disease" than undergraduate clerkship students ( $X^2 = 40.77$ ,  $p \leq 0.001$ ). There were significantly more residents who have thought that "dementia is not a psychological disease thus psychiatrist must not treat this disorder" ( $X^2 = 13.41$ ,  $p = 0.001$ ). Significantly more residents have not agreed that geriatric psychiatrists or geriatricians should manage dementia than psychiatrists ( $X^2 = 20.06$ ,  $p \leq 0.001$ ). In addition, fewer residents considered that the neurologists must handle patients with dementia because of brain region involvement in dementia ( $X^2 = 31.53$ ,  $p \leq 0.001$ ) or because of unawareness of dementia types other than dementia due to Alzheimer's disease ( $X^2 = 52.788$ ,  $p \leq 0.001$ ). Furthermore, significantly more residents were not in favor of neurological care because of probable medical problems during follow up ( $X^2 = 23.24$ ,  $p \leq 0.001$ ) (please see, tables 1 and 2).

## Discussion

In this study, approximately 80% of students and nearly 50% psychiatry residents did not response positively to dementia treatment in psychiatry and believed that dementia is a brain disease and one in three preferred neurologic care because of brain involvement. However, in clinical practice the psychiatry residents treat and care most of axis 1 or 2 psychiatric disorders, willingly in which cortical thickness (Rimol *et al.*, 2010), changes in brain derived neurotrophic factor (Matsuo *et al.*, 2009), the involvement of striatum (Simpson *et al.*, 2010) and functional and/or morphologic abnormalities (Takahashi *et al.*, 2009) have already been shown. This dilemma might be due to the different attitudes in neurology and psychiatry practices. For example, psychiatry residents stress the anatomic structure and regional brain lesions in diagnostic procedure during neurology rotation while they categorize mental illnesses based on

Table 1: Who hold dementia treatment? The response of participants to questionnaire

Residents/clerkships	Agree %	Neutral %	Disagree %	X <sup>2</sup> and P values
Dementia is a brain disorder thus neurologists have to treat this disorder	40.0/82.5	17.8/9.5	42.2/7.0	40.777 0.001**
Dementia is not a psychological disease thus psychiatrist must not treat this disorder	8.9/15.5	2.2/20.5	88.9/63.0	13.413 0.001**
Geropsychiatrists or geriatricians should take care of the patients with dementia management but the psychiatrist should not.	14.4/29.0	7.8/22.0	77.8/49.0	20.064 0.000**
The brain regions are involved in the pathogenesis of dementia thus neurologists must handle these patients.	34.4/76.5	16.7/13.0	48.9/10.5	31.525 0.001**
There are a lot of types of dementia such as dementia due to Huntington, Parkinson's diseases in which the psychiatrists should be unaware of them. Thus neurologist must handle these patients.	12.2/63.0	12.2/19.0	75.6/18.0	52.788 0.001**

Note: "definitely agree" was shown in "agree", "definitely disagree" was shown in "disagree" title.

Table 2: When psychiatry must enroll in dementia treatment? The response of participants to questionnaire

Residents/clerkships	Agree %	Neutral %	Disagree %	X <sup>2</sup> and P values
The psychiatrists are not competent in anti-dementia drugs and the mechanisms of them in brain.	18.9/10.5	11.1/31.5	68.9/59.0	19.780 0.001**
The psychiatrists must not handle these patients because of probable medical problems which they cannot cope with.	13.3/17.5	7.8/31.5	78.9/52.0	23.236 0.000**
Absolutely the neurologists must take care of the initial phase of memory complaints in dementia patients not psychiatrists.	35.6/65.0	7.8/13.0	56.7/22.0	27.322 0.001**
Psychiatrists should contribute dementia management if psychological problems as psychosis, depressive symptoms occur.	80.9/85.5	4.5/6.5	14.6/8.0	0.913 0.633
Neurologists must handle dementia patients even after the occurrence of psychological problems as psychosis, depressive symptoms.	43.2/27.0	13.6/18.5	43.2/54.5	5.936 0.051
Psychiatrists must accompany with the management of dementia when behavioral problems (agitation, aggression or wandering) occur.	77.3/80.5	3.4/6.0	19.3/13.5	7.398 0.025*
Neurologists must handle dementia patients even after the occurrence of behavioral problems (agitation, aggression or wandering).	47.7/37.0	9.1/19.0	43.2/44.0	1.836 0.399

Note: "definitely agree" was shown in "agree", "definitely disagree" was shown in "disagree" title.

phenomenological descriptions, psychodynamic, cognitive behavioral approaches (Dunstone, 2010). Currently, the practice in neurology and psychiatry in Turkey is completely separate. In psychiatry clerkship, there is only one lecture about dementia, delirium and other amnesic disorders in Turkey which lasts approximately two hours. However, psychiatry is grounded in neuroscience after the explosion of knowledge in basic brain studies within decades (Schon *et al.*, 2006) and even psychiatric disorders other than dementia (i.e. depression, schizophrenia, bipolar affective

disorders etc.) are also accepted as complex brain disorders (Reynolds *et al.*, 2009). In recent years, moving psychiatry closer to neurology by incorporating the learning of neuroscience to psychiatry within undergraduate medical curriculum is suggested (Schon *et al.*, 2006). Nevertheless, a further challenge occurs such as how to accomplish core learning objectives with reduced curriculum time (Rosenthal *et al.*, 2005).

In addition, more than 80% of undergraduate medical students and one third of psychiatric residents were in favor of neurologic care particularly at initial phase of

dementia. In literature, depression is reported to be the one of the most common behavioral psychological symptoms of dementia at any stage and late onset depression might be the first early sign of dementia (Prado-Jean *et al.*, 2010). Apathy and/or depression at baseline in dementia seem to be related with faster cognitive decline (Prado-Jean *et al.*, 2010; Starkstein *et al.*, 2009). Patients with late onset acute and transient psychosis are at 8 folds greater risk for subsequent diagnosis of dementia (Korner *et al.*, 2009). Thus, the presence of non-cognitive neuropsychiatric symptoms at any stage of dementia might be overemphasized in psychiatry residency practice and during clerkship. Surprisingly, 65% of medical students and one in two psychiatry residents were close to neurologic care even after the occurrence of behavioral problems in dementia. In literature, while hallucinations and mild depression often reported to be resolved over a few months, delusions, agitation and more severe depression were found to be persistent (Ballard *et al.*, 2009). Furthermore, non-cognitive psychological and behavioral symptoms in dementia might cause earlier institutional care (Rodda *et al.*, 2009). Thus, as the awareness and knowledge of dementia and related symptoms increases, psychiatrists are expected to become increasingly involved in dementia care even at initiation phase. This study has some limitations. First, comparison groups from other countries would be more valuable to interpret our findings. Second, self-made questionnaires might underestimate the relationship between general practice and knowledge of dementia thus might generate false or distorted findings. Third, the participants might hide themselves and response conveniently as expected from them in such self-report questionnaires. In conclusion, interdisciplinary approach might be the best in patients with dementia in which there are common aims to be reached interdependently. Although there is growing evidence of neuroscience psychiatry on the basis of brain studies, the old dilemma “known etiological disorders belong to neurology” and “psychiatry includes unknown etiological disorders” is still continuing, particularly in education and a lesser degree in psychiatry practice. Thus academic psychiatry should carefully reexamine what and how to teach psychiatric disorders in elderly during clerkship or post-graduate for psychiatry practitioners.

### Key points

The disorders that had evidence of brain involvement are usually linked to neurology while the opposite are suggested to be in the area of psychiatry. Psychiatric care is essential in dementia although there is confusion in medical students or even in residents of psychiatry. Collaboration of the psychiatry residents and undergraduate medical clerkship students in dementia

practice with neurology, psychiatry and geriatric medicine would be more beneficial to patients with dementia

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