

# Determining cognitive function in Parkinson's disease using a Mini Mental Examination (MMSE).

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## OBJECTIVE

This review determines the cognitive function of patients with Parkinson's disease using the MMSE test.

## BACKGROUND

Parkinson's disease (PD) is a progressive neurological disorder characterized by a large number of motor and non-motor features that can impact on function to a variable degree. Assessing cognitive function could benefit patients through enabling disease-stage appropriate interventions, such as mental exercises, to be given to slow disease progression.

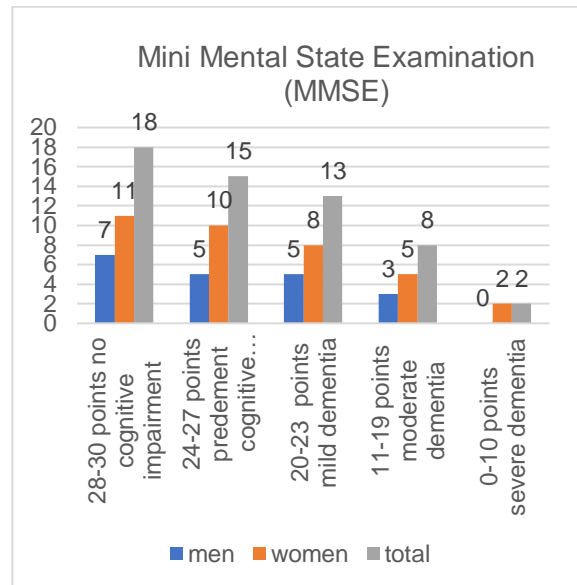
## METHODS

A total of 56 PD outpatients from 10 primary health care facilities in Almaty underwent clinico-neuropsychological examination by a clinician using the MMSE test. Test results were analysed using descriptive statistics.

## RESULTS

There were 20 males (35.71%) and 36 females (64.28%) aged from 44 to 85 years old (average age  $63.06 \pm 7.24$  years). According to the anamnesis, the average age of onset of the disease (the moment from which patients began to notice the symptoms of PD) was 56.23 years.

According to the MMSE scale, 59% of patients had no cognitive impairment (n=18) or were pre-cognitive impairment (n=15), whereas 37.5% had dementia of mild (n=13) or moderate (n=8) severity. 3.6% (n=2) patients had severe dementia.



## CONCLUSIONS

Different therapeutic interventions are beneficial for patients with different levels of cognitive impairment. This study found that the majority of patients were in early stages of PD. Intervention with appropriate therapies at early stages could slow the progression of disease. The MMSE test could be beneficial for assessing the cognitive function of, and determining appropriate interventions for PD patients in Almaty.

## REFERENCES

1. Aarsland D, Bronnick K, Williams-Gray C, Weintraub D, Marder K, Kulisevsky J, Burn D, Barone P, Pagonabarraga J, Allcock L, Santangelo G, Foltynie T, Janvin C, Larsen JP, Barker RA, Emre M. Mild cognitive impairment in Parkinson disease: a multicenter pooled analysis. *Neurology*. 2010;75:1062–1069.