

## **P-53 - THE EFFECT OF ADMINISTRATION OF A SINGLE METHADONE DOSE ON PSYCHOMOTOR PERFORMANCE IN PATIENTS ADDICTED TO OPIOIDS DURING SUBSTITUTION THERAPY**

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**Objective:** The aim of the study is to assess graphomotor and psychomotor skills of people treated with substitution therapy in opiate addiction.

**Methods:** 36 patients were examined twice, immediately before and about 1.5h after oral administration of therapeutic dose of methadone. The original test implemented on a tablet was used. A task in the first part was to map, as accurately as possible, geometric shapes printed on the sheet of paper by drawing on contour, and in the second part to sign up on the sheet. The patients used dominant hand. The software used allows to make analysis of the motion's parameters: time, force levels, speed and acceleration of the plot, amplitude and frequency of hand tremors.

**Results:** The amplitude of tremors in the spectrum of variations in 13 of the 16 components analyzed in the drawing task and all the components in the spectrum of the instantaneous velocity tremors were reduced. In the signature task a significant reduction in the average amplitude of tremors for medium and higher spectral components (from the 4<sup>th</sup> up) and a reduction in the amplitude of tremors in the spectrum of instantaneous velocity for most precisely analyzed components was observed.

**Conclusion:** A single dose of methadone in opioid-addicted individuals reduces dominant hand tremors, particularly in the 1<sup>st</sup> spectrum component frequency for the drawing test. This indicates improvement in graphomotor and psychomotor function.