

**Objectives:** To investigate the protective mechanisms that protect the brain from premature aging

**Methods:** Clinical, sociological

**Results:** Violations of the higher cerebral functions of speech, gnosis, praxis are the neuropsychological basis for the development of psychological symptoms of dementia. Speech disorders, gnosis disorders contribute to the formation of painful ideas, perception disorders, eating disorders and affective symptoms. The level of functional activity is low and does not depend on the state of severe microsocial dementia, total aphasia and apraxia. The social, work, family and marital status of caregivers for patients with moderate to severe dementia is declining. An increase in the degree of dementia can reduce the functional activity of the caregiver. Caregivers often suffer from neurotic, affective and other mental disorders. A person with dementia plays a subordinate role in the family. Changing roles in the family occurs when the patient has delusion, agitation / aggression, anxiety, unstable mood / irritability. In these cases, the interpersonal distance in the "care-patient" pair increases. Caregivers have a high level of emotional involvement in the care process. A change in the role of the family, a change in place of residence, and a high level of "expressive" emotions of the guardian negatively affect the formation of psychosis, anxiety and aberrant behavior in patients with dementia. Microsocial factors influence cognitive retention in dementia

**Conclusions:** Protective psychosocial factors strengthen the cognitive reserve

**Disclosure:** No significant relationships.

**Keywords:** Alzheimer's disease; cognitive reserve; Pathological brain aging; cognitive functions during aging

## EPV0344

### Study of changes in neuropsychological indicators in adults

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**Introduction:** Currently, the number of cases of pathological aging of the CNS, represented by a violation of cognitive functions, is increasing. But there is a social request to prolong the physical and mental activity of older people

**Objectives:** The study of the dynamics of cognitive aging is timely and relevant. The article contains a report on a cohort non-repeating study of higher brain functions at various age periods

**Methods:** The average age was 45.1 ± 5.7 years. Inclusion criteria: 1. Dextral. Non-inclusion criteria: 1. Clinically significant somatic diseases in their medical history. 2. Mental disorders in their medical history. •Applied neuropsychological, statistical research methods. The research tool was the neuropsychological rapid method including the subtests: •"Memorizing 9 words in three presentations (1st, 2nd, 3rd attempts)", •"Sequential subtraction", •"Test of Benton's visual memory", •"Solving an arithmetic problem", •"Overlaid images", •"Specified flow of associations in 1 minute", •"Figure of 3 geometric figures", •"Blind hours", •"Graph-motor test", "Delay word reproduction"

**Results:** The first cohort 27–40 years old. The second cohort 41–50 years old. Third cohort 51 years old and older. A significant

difference in the performance of the graphomotor test between the subjects of the age subgroup of 27–40 years and the subgroup of 41–50 years was statistically confirmed. In older people revealed a much greater number of errors, interruptions of the test than the representatives of the more "young" subgroup

**Conclusions:** The deterioration in the performance of the graphomotor test was the most age-specific

**Disclosure:** No significant relationships.

**Keywords:** Pathological brain aging; cognitive functions during aging

## EPV0346

### How to reduce the number of children awaiting the diagnosis of intellectual disability in Brazil?

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**Introduction:** In Brazil there is high number of children with Intellectual Disability (ID) who begin basic education but did not receive a diagnosis. The basic education teachers can be important agents in identifying signs of ID in the student so that they can be referred to health services.

**Objectives:** To develop and implement a decision-making model for basic education teachers to identify students with predictive signs of ID.

**Methods:** The sample was composed by 51 teachers from 20 public schools and their 1758 students eligible for the study enrolled in a educational network in São Paulo state, Brazil. A standardized model was developed for the evaluation process using an open-source software named BONITA. For the screening of students with ID signs the teachers answered a checklist based on the diagnostic criteria of the DSM-5 and the students were evaluated with neuropsychological test WASI (Wechsler Abbreviated Scale of Intelligence) and neuropsychiatric assessment. A Classification Based on Association Rules (CBA) generated the predictive models of sensitivity for confirming ID from the items in the checklists.

**Results:** 35 children had suspected ID. The CBA showed an accuracy of 82%, identifying only 1 false-negative case and 3 false-positive cases for ID. According to the teachers, the most accurate signs were deficits in abstract thinking skills, deficits in communication and conversation and difficulties in emotional regulation in social interactions.

**Conclusions:** The decision-making model by elementary school teachers to identify students with ID showed high levels of sensitivity and can help the waiting for diagnosis.

**Disclosure:** No significant relationships.

**Keywords:** Decision-making Process; intellectual disability; Business Process Management System; Data Analytics