



MAZOWIECKIE CENTRUM
NEUROPSYCHIATRII



The use of robot PARO in therapy for children and adolescents from Ukraine



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Purpose:

Evaluation of efficiency and benefits while using robot **PARO** in therapy of:

- ▶ Autism
- ▶ Acute stress response
- ▶ Speech Developmental Disorders
- ▶ Intellectual disability
- ▶ Behavioral and Emotional Disorders
- ▶ Symptoms at risk of developing PTSD
- ▶ Cerebral Palsy





Target groups:

The PARO robot named "Friderica" has been used for one year as a new therapeutic tool in following situations:

- Group sessions for children aged 5 to 12
- Psychological consultations for children and adolescents (2 to 18 years old)
- Individual psychotherapy for children and adolescents (2 to 18 years old)

Observations:

- ▶ The PARO robot has proven its effectiveness in interacting with children with a variety of mental disorders.
- ▶ During their interactions with the robot PARO, children and adolescents were petting, hugging, talking with the robot, role-playing.
- ▶ Children respond positively and the results showed that the moods improved.





- ▶ Due to the similarities of the robot **PARO** with an animal such (soft fur and realistic movements), children usually didn't realise the difference. That's why during the first communication they perceived robot **PARO** as a living being.



► There were such cases where children interacted with the robot PARO like with a pet.

► Children were feeding robot PARO , treating it, and played out different models of interaction.



- ▶ At first, some children feared the sound of the PARO robot. However, after a few interactions they became accustomed to it or even attached.



- ▶ The PARO robot has also been used for sensory integration therapy. Especially for children with sensory hypersensitivity, it helped them to reduce sensory sensitivity.



- ▶ Soft coat and vibration of PARO provided sensory experience and acted as a source of stimulation of tactile and auditory feelings during sensory integration.



- ▶ The **PARO** robot is used as a model of body parts in children with physical disabilities (body scheme disorder).
- ▶ As well as in the formation of social skills, for example, children with autism were able to establish eye contact, by focusing on the eyes and nose of the robot.



▶ One of the following functions of robot PARO became the relaxation function



▶ As well as stimulation and motivation for children to exercise and activities .



Conclusions:

- ▶ To summarise you can say that robot PARO improves the child's emotional state and lowers the level of anxiety and tension.
- ▶ It also improves interaction, facilitating social communication and building trust in the environment.
- ▶ Sensory function plays an important role, as the robot provides many sensory stimuli (such as stimulating and calming) and it has a positive effect on feelings.



Thank you very much!

