Innovative technologies and ASD

Mo-S-243
The circadian rhythm alterations in childhood bipolar disorder
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This research is based on a sample of 112 patients (from 6 to 16-years-old) referred for their self-regulatory problems. Clinical interviews with patients and their families were conducted by an experienced psychiatrist and the CBCL was completed by the parents. The history of psychiatric disorders, sleep disorders and characteristics of the thyroid profile were analyzed.

Results.– The children referred for their severe dysregulated behavior (Mean of Total Problems (TP) 75.8 and 90% with Total competence score below T<37 (< 10th percentile), were analyzed with the two sub-scales of dysregulation. In both groups, the sleep disorder related by parents and children were very high in CBCL-DP (46%) and in CBCL-DPSS (41.7%). The Mean of TP, if the sleep problems are present, is 93.3 and 70.4 when is absent (P = 0.000). The Mean TP if the child with severe dysregulation has hypothyroidism and sleep problems (76.5 vs. 115.7) (P=0.001) seems identifies a severe sub-group.

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Mo-S-244
Sleep difficulties in anxiety disorder
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The anxiety disorder in the pediatric population; presents great difficulties sleeping in expression of symptoms. Behavioral difficulties at bedtime are often the most difficult problem to solve. Parents can send their children at camp activities, but can’t send the kids to sleep in their own bedroom; others remain long time in bed of the child until they fall asleep. The question is: are the sleep disorder an independent syndrome, or are symptoms of the anxiety disorder expression? Why do persist when the anxiety symptoms disappear, are the sub-syndromatic expression? Or it is comorbidity untreated and needs a specific approach? The purpose of this presentation is focus in that direction, searching the real impact in children and the family with anxiety disorder, and compare the data of other studies of children with anxiety disorders with our outpatient from anxiety clinic.

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Mo-S-245
Jestimule, a serious game for autism spectrum disorders
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We developed a serious game to improve social cognition for a large and heterogeneous group of Autism Spectrum disorders (ASD). This study evaluated “Jestimule”, a serious game, for its effectiveness in teaching ASD individuals to recognize facial emotions, emotional gestures and emotional situations. Exploration experiments tested a group of children with ASD (n = 40) who used the serious game at the hospital twice a week one hour for four weeks. The first experiment explored a large and heterogeneous group of ASD (aged from 6 to 18) to decide who could use this serious game. The second experiment tested participants on recognition of facial emotions, emotional gestures and emotional situations.

Results.– Experiment one showed a large and heterogeneous children with ASD who could play and understand this serious game. Experiment two showed that participants improved these results in different tasks.

Conclusion.– Preliminary results have education and therapeutic implications for serious games in ASD and should be taken into account in future trainings.

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Mo-S-246
Evaluation of an intervention targeting social skills in children and adolescents with autism spectrum disorders without intellectual disability
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Introduction.– Few proposals are now available and validated to improve the social skills of individuals with a pervasive developmental disorder without intellectual disability. We have developed an intervention aiming at their progression from the analysis of video sequences. The goal is to facilitate communication within the group, sharing interests and emotions, and to improve understanding of social situations.

Methods.– Thus, we conducted an opened and uncontrolled prospective study to evaluate our intervention. The main objective is to assess the immediate effect on communication skills. The secondary objectives are to evaluate the effects on social adjustment and quality of life.

Results.– The results indicate a statistically significant increase in communication skills, in experimental and ecological situations. The evaluation of socio-adaptive behavior indicates a significant statistical increase in communication, in family and social autonomy and in leisure. The assessment of the quality of life showed no statistical changes but can identify some influencing factors.

Discussion.– The results of our study are consistent with the qualitative analysis and allow us to identify clinical applications.

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Mo-S-247
Haptic perception and haptic technologies for children with autism spectrum disorders: Where we are now and where we are heading
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Children with Autism Spectrum Disorders (ASD) often present abnormal reactions to tactile stimuli. Such reactions have an impact on social interactions, daily routines, and occupational performance. Despite these numerous implications, the tactile abnormalities of children with ASD are rarely discussed in the literature. Furthermore, the limited number of existing studies presents certain limitations (e.g. paucity of research on touch compared to vision and audition; predominant use of indirect methods; limited number of quite simple tactile stimuli used in experiments). In this communication, we will focus on a state-of-the-rat review on such types of abnormalities and the associated technological aids, which are currently being developed. We will discuss both experimental and observational studies done in the fields of psychophysics, experimental, cognitive and engineering psychology, as well as Human-Computer Interaction. We will also present a reflection on the possible evolutions of these topics and fields.

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Mo-S-248
Can ICTS enhance neurocognitive processes of emotional perception in autism spectrum: Insights of event-related potentials?