

disorder the correlations were higher in tasks whose processing is purely nonsymbolic, while in the tardive dyskinesia group the correlation is higher in symbolic tasks. This seems to indicate that, although the results in the mathematical domains are similar, early numerical skills affect in different ways (such as subitizing for example) to both groups. However, these differences are significantly reduced with age, indicating that both groups had a similar development in the last years of Primary Education. Future research should increase the sample for each year of Primary Education and to use longitudinal studies, studying in greater detail why subitizing ability is better in children with high-functioning autism spectrum disorder, and why it disappears as children's age increases.

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EFFECT OF THE IMPACT INTERVENTION ON PRETERM CHILDREN WITH AUTISM SPECTRUM DISORDER: A FOLLOW-UP STUDY

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BACKGROUND: Globally, 15 million babies are born prematurely (<37 weeks' gestation) each year (Blencowe et al., 2012). Advances in intensive neonatal care have greatly improved the survival rate of preterm infants. However, the incidence of neurodevelopmental disorders in this group, such as autism, is one of these behavioral conditions observed. There is scarce evidence of programs that monitor and teach parents about the development of this group when the first developmental concerns appear until the diagnosis is finally confirmed and not many studies report follow-up results.

OBJECTIVES: To this end, we conducted the ImPACT (Improving Parents As a Communication Teachers) intervention (Ingersoll & Wainer, 2013) aimed to investigate results in broader gains in social, cognitive, language and adaptive functioning in young preterm children with a higher probability to have autism (measured with ADOS and M-CHAT-R/F) 6 months after finishing intervention. Moreover, this is the first study to use individual change indices in a pre-post-follow-up design with preterm infants with ASD, a comparison group, and a control group.

METHODS: Eighteen children between the ages of 18 and 20 months and their families participated in the study. Children were recruited from a developmental disorder diagnostic and rehabilitation centre and from the Salamanca Clinical Hospital, and allocated to the three groups in accordance with the respective inclusion criteria: (1) preterm children at risk for autism who received intervention (experimental), (2) full-term children at risk for autism who received intervention (comparison), and (3) preterm children (control). In the intervention, children and their parents participated in fifteen weekly individualized 2-h sessions with a researcher that emphasized embedding strategies targeting imitation, joint attention and play into everyday routines and play activities. Children were evaluated 6 months after the end of the intervention.

RESULTS: Findings indicate that children in the intervention groups maintained the improvements showed post-intervention. There were significant differences in imitation skills (.045), joint attention (.031), and play (.025) in the follow-up results compared to post-intervention. There were no significant differences between preterm and term children with autism in any area. Individual analyses showed similar results, except for ADOS-T module results and cognitive functioning, in which the mean of preterm children with autism showed reliable changes maintained 6 months after finishing intervention.

CONCLUSIONS: These results shows that change can be made and maintained in core developmental areas for preterm children with a higher probability to develop autism, when applying a low-intensity intervention targeting social and communication skills. Even though such core areas of impairment are not easy to change, the intervention had an appreciable effect. Most of the participants

improved significantly in socio-communicative skills, cognitive development, language, and adaptive behavior, and ASD signs were reduced. Thus, this study emphasized the need for further research and implementation of early interventions in young preterm children with autism and their parents when targeting social-communication skills as a main objective for intervention.

References

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NUCLEUS ACCUMBENS FUNCTIONAL CONNECTIVITY MEDIATES CIRCULATING ENDOCANNABINOID AND BODY MASS INDEX IN ANOREXIA NERVOSA

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Background: Anorexia nervosa (AN) is a severe psychiatric disorder characterized by neurobiological alterations involved in eating behaviour. Despite the negative health consequences, individuals with AN persistently engage in starvation, resulting in severe and harmful low weight [1]. According to the DSM-5, severity is classified based on body mass index (BMI), from mild (BMI ≥ 17 kg/m²) to extreme (BMI <15 kg/m²). Research suggests that alterations in the nucleus accumbens (NAcc) and circulating endocannabinoids (eCBs), such as anandamide (AEA) and 2-arachidonoylglycerol (2-AG), may contribute to increase severity and maladaptive behaviours in AN [2,3], which warrants an examination of the interaction between central reward circuits and circulating endocannabinoids (eCBs).

Aims: To investigate the intrinsic functional architecture of the NAcc and examine the fasting circulating concentrations of AEA and 2-AG in individuals with AN compared to healthy controls (HC). The main objective was to investigate whether NAcc functional connectivity and circulating eCBs had an impact on body mass index (BMI) in the AN and HC groups.

Methods: Thirty-six adult women (18 with AN; 18 HC) were assessed in two separate sessions. First, they underwent a resting-state functional magnetic resonance imaging (rsfMRI) session. Subsequently, blood samples were collected after overnight fasting for circulating eCBs. Using seed-based functional connectivity analysis focused on the ventral striatum/NAcc area as key brain region of reward system, we obtained the whole-brain functional connectivity maps from this region for each participant and compared these maps between the AN and HC groups. Analyses were controlled for age and corrected for multiple comparisons using a family-wise error rate significance threshold of pFWE < 0.05 (spatial cluster extent). Finally, we used a multigroup Structural Equation Model (SEM) to investigate the effect of circulating eCBs and NAcc functional