IS ORAL SENSORY PROCESSING A NEW PREDICTOR OF LANGUAGE SKILLS IN INDIVIDUALS WITH AUTISM?

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Dear Editor,

We would like to inform you about our study created with the intention to test whether one of the autism core activity limitations, which is the deficit in social communication and language, can be predicted by sensory features assessed using a sensory profile. This could imply that improvement in sensory seeking behaviours of individuals with autism might have a positive impact on improvement of their language and communication skills.

Identifying early signs and symptoms of neurodevelopmental disorders is crucially important even before the disorder has expressed itself to the fullest. This allows monitoring the child, as well as an improvement in early detection and intervention programs outcomes (Caruso et al. 2021). Children with autism show signs, overlapping symptoms and co-occurring disorders that often confuse their caretakers and/or professionals, so they often stay unrecognised, deprived from an early detection, diagnosis, and intervention.

Sensory processing deficits, dysfunctions or abnormalities often surface when describing features of persons with autism or suspected autism (Gonthier et al. 2016). Studies indicate that sensory integration training has certain positive effect on autism features and is valuable for development of future intervention courses (Xu et al. 2019). Knowing that there is considerable delay in autism diagnosis despite the early presence of recognized signs and symptoms, a more proactive role was taken while creating the goals and procedures of this study.

This study included 72 individuals, aged three to fifteen, with recognisable, widely known signs of autism who are directed to various available treatment facilities. Some of the subjects were with, and some without the official medical diagnosis of autism. For this study, subjects were tested using the three assessment instruments: clinical test for autism (Schopler et al. 2010), sensory profile (Dunn 2014), and language assessment (Partington 2008). Clinical test for autism provided grounds for the formation of two subjects groups (with and without clinical confirmation of autism).

Sensory and language features of children with and without clinical confirmation of autism were compared. Findings showed that subjects from the two groups significantly differ in all assessed language features, and in some of sensory profile variables (auditory processing, touch processing, and attentional responses associated with sensory processing). Results also show significant correlations between the main language component and some sensory profile variables (touch, body position, oral-sensory processing; attention responses related to sensory processing). Results of the regression analysis (Model 1 -without age and gender control) show that touch processing, body position processing, oral-sensory processing, and attentional responses associated with sensory processing are valid predictors of the main language component. Regression analysis (Model 2- controlled for the effects of age and gender) shows that oral-sensory processing is a valid predictor of the main language component.

These results imply that a transdisciplinary approach to assessment and early intervention in autism is a suitable course of action, as well as that improvement in one (sensory) domain, could be beneficial to another (language and communication) domain. Could this be considered as a boost for more intensive sensory and language treatment of individuals with autism?

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