Integrated Sensorial Development Program Applied To Students with Autism Spectrum Disorders: Correlations between Emotion and Global Behaviour

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Abstract

People with Spectrum Autism Disorder (ASD) exhibit a restrictive and stereotyped behaviour [1]. One subtype of restricted and repetitive behaviour is restricted interests in actions, which describe the manner in which people perform activities in interaction with the context. People with ASD might engage with a narrow range of actions or an exclusive activity behavioural in order to developing their social interaction, so this deficit might lead to limited sources of stimulation to achieving social, communication and educational goals. In addition, interrupting an individual’s engagement with restricted interests might evoke severe limitation general behaviour.

Introduction

Diverse findings [2-4] might be explained in terms of reduced perceptual global in autism, and that reduced perceptual global could also account for the difficulties that people with autism have in making behaviour compression and adaptation to social situations. Then Ojea [5] diagnostic features isn’t an isolated process limited to observable behaviour, but it’s share of the functioning interrelation of the sensory system, in which all neuropsychological processes are a whole interrelated.

Therefore, learning the programs shouldn’t be limited to the teaching learning of isolated and disconnected behaviours, that is, restricted interests might develop as a result from individual’s limited behavioural repertoires results in reinforcing emotions interactions with behaviour learning to make flexible restricted behaviour and promote positive consequences in global behaviour. It’s requires that all interrelated sensorial processes be activated about learning, which involves the cognitive learning practices that include the emotional and motivational dimensions to increase the behaviour skills through improvement the flexibility and of behaviour interests.

Our hypothesis is to verify if an interactive program that take on sensory integration of different components: behaviour-emotion- motivation involve a greater global behaviour development in relation to the Stimulus- Answer (S-A) behaviour learning. The goal of this research was to provide set of components to improve the global behaviour into individuals with ASD, as well as to establish whether there might be any differences between two participants group.

Method

A total of 10 children with level 1 ASD, of 12 years old, were distributed in two groups, an experimental group (n=5), whom was applied a sensory integrated program, and a control group (n=5) whom was applied a behavioural modification S-A program. Study development was carried out in specific autism association of various secondary education centres. To examine this program affectivity two variables controlled:

a. Emotion variable (measure with the EQC-SQC Empathy Quotient Test), and

b. Behaviour variable (measured with the ADI-R Sub-Tests), through a design pre- post- intervention applied for 6 months. Comparative results were analysed using Within Subjects Contrasts Test, Mann-Whitney Test and Pearson Correlation.

Results

Comparative results found significant differences between pre- intervention and post- intervention in both group, and was found significant differences between experimental and control group. Firstly, after 6 months, all child’s all behaviours were improved. In fact, the Test of Within- Subjects Contrasts Test, Mann-Whitney Test and Pearson Correlation.
group type: Sphericity Assumed (Sig: .00), Greenhouse-Geisser (Sig: .00), Huynh-Feld (Sig: .00), Lower- Bound (Sig: .00).

Secondly, concerning the comparative level between the experimental and control group, the Mann-Whitney Test reflected important differences for the two groups in relation to the variable post-intervention behaviour (Sig: .01), but was found no differences in the other variables: pre-test emotion (Sig: 1.00), post-test emotion (Sig: .31), pre-test behaviour (Sig: 1.00). So there was a difference at the post-intervention behaviour between the two groups, consistent with the integrated sensory program application.

Finally, correlation analysis inter-variables allowed to deduce the significant relationship between post-intervention behaviour and post-intervention emotion (Sig: 01, Pearson: 73 at 01 level-2 tailed), as well as pre-intervention behaviour with pre-test emotion (Sig: 00), Pearson: 64 at 01 level-2 tailed. In other interactions pairs no significant Pearson correlations were found.

**Conclusion**

This study revealed that after of intervention, experimental group children with ASD showed greater improvement the flexibility and global behaviour in relation their control group peers. It’s be important to determine especially the strong correlation between the emotion and behaviour variables, which explains the improvement of global behaviour of experimental group participants.

In the future applied research for behavioural improvement and development in individuals with ASD, it will not only be based on behaviour modification programs at use S-A, but should include all interaction psycho neurological components through an integrated sensory program designed to individuals with ASD that includes:

a. Perceptive-cognitive understanding of objective behaviour.

b. Integrated relationships between emotion-motivation-behaviour.

c. Application in the natural context, and

d. Generalizations of learned behaviour.

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