

Age as a defining determiner of success in comprehensive intensive treatments of ASD

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Introduction

The symptoms of autism spectrum disorder are generally noticeable at an early age. Their manifestation often depends on the severity of the condition, the developmental level, and the chronological age. Research on therapy and rehabilitation of children and young people with ASD has shown that approaches that are structured and comprehensive, which start in the first three years of life, and include parents in achieving goals are more beneficial than approaches that start after the third year or the ones that utilize the wait-and-see approach.

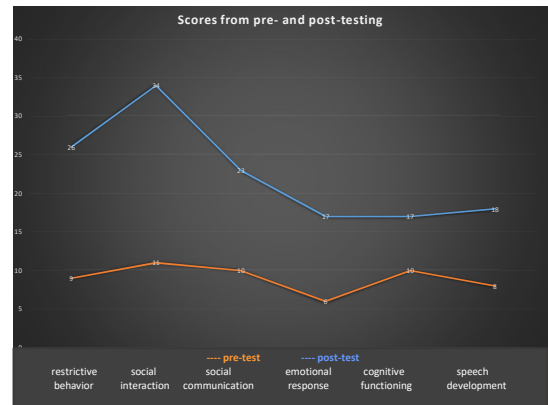
The most common recommendations for using ASD interventions are that treatments should start as early as possible in order to capitalize on brain plasticity in the early years. Treatments should be intensive in order to achieve maximum effectiveness. The involvement of parents in interventions is an important segment, especially in the process of transition from a highly structured environment to a natural environment. One of the studies on the effectiveness of early intensive behavioral intervention, showed that children who received this type of intervention achieved higher cognitive compared to the control group (Lovaas, 1987).

Advances in the identification, assessment and treatment of children with autism spectrum disorder have led many researchers and clinicians to examine alternative assessments of child development and achievement in early intervention (Bacon, E.C. et al., 2014)

Objectives

* To define the predictors that lead to better results in children with autism by observing the outcome of the intensive comprehensive treatment.

* To define proposals for improving practices in the field of early intervention and early treatment for children with ASD, more specifically in the areas of restrictive/repetitive behavior, social interaction, social communication, emotional response, cognitive functioning and speech.



Methods

This three-year quantitative research is a quasi-experiment in which was used a pre-test and post-test design as a form of this type of experiment. The Gars-3 test (Gilliam Autism Rating Scale-Third edition) was used as a research instrument. 32 children with an autistic spectrum disorder were included in the research, 6 of them were females, and 26 were males.

Analyses

Regarding the age variable, at the beginning of the research, 12 respondents (37.5%) were 2 years old, 5 respondents (15.6%) were 3 years old, 8 respondents (25%) were 4 years old, 2 respondents (6.3%) aged 5 years, 4 respondents (12.5%) aged 6 years and 1 respondent (3.1%) aged 8 years.

Two measurements were carried out:

- initial pre-test measurement, and
- final post-test measurement

Between the two measurements, the intensive comprehensive treatment was provided. Data from pre- and post-test were analyzed as in any other quasi-experimental design, using regression analysis, time series analysis and two-group tests. In this particular case, the t-test ($p < 0.01$) was used to determine if two groups were statistically different from each other and the ANOVA ($p < 0.05$) to determine if three or more populations were different from each other.

Results

The processing data from the post-test with the t-test procedure shows that there are statistically significant differences among children who started intensive comprehensive treatment at different ages. In the area of social communication, there is a statistically significant difference among respondents who started the treatment before and after three years of age $t = 2.129$ ($p < 0.01$). A statistically significant difference also exists in the areas: of cognitive style where $t = -3.499$ ($p < 0.01$); and incoherent speech [($t = 2.021$, $p < 0.05$)]. In all these areas, the statistically significant difference is in favor of the group of children who started treatment before the age of three. Those children show improvement in the three mentioned areas.

This is shown by the existence of a statistically significant difference in the common scores obtained on the post-test ($t = -2.329$; $p < 0.01$).

With the help of ANOVA to determine the significance of differences between several groups, it was determined that age is a relevant factor that contributes to social communication in the post-test measurement ($F = 2.814$, $p < 0.05$), that is, the earlier age they start treatment, the better social communication they will have after the treatment.

Recommendations

1. Media emphasis on the importance of early intervention and autism spectrum disorder. Of particular importance and priority is raising public awareness of autism spectrum disorder. The effect of media presentation of the disorder and the abilities and needs of these individuals and the importance of early intervention can be positively reflected in all social spheres, but exclusively under the guidance of a coordinating body that will be in charge of media representation.

2. Investing in the domain of family-centered early intervention for children with ASD.

The number of recorded effectiveness of early interventions has increased (Bradshaw, J., Steiner, A.M., Gengoux, G., and Koegel, L.K., 2015; Eapen, V., Črničec, R., and Walter, A., 2013; Reichow, B., 2012), and hence the assumption that long-term social and family costs will be reduced to a certain extent, if the symptomatology of the disorder is affected early, thereby increasing the independence of people with ASD in adult age. By improving the competencies of the parents, the time the child spends with the family will be significantly more stimulating.

3. Monitoring the development of children from the earliest age in primary care centers.

Conducting detailed observations at each developmental level in primary care centers will enable early recognition and monitoring of developmental deviations in children with ASD. These observations would relate to appropriate screening for ASD and developmental achievement scales. By following specific directions from the therapists, parents will be able to participate directly in the improvement of the daily life of the child with ASD.

4. Advancement of early detection

Early detection is of particular importance and promotes early intervention. By adequately training young families regarding the standards and expectations in their child's development, the competence of parents to notice deviations in development and to intervene in a timely manner will be enabled.

References

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Prague, 2023