

# Using the Preschool Language Scale, Fourth Edition to characterize language in preschoolers with autism spectrum disorders

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Autism Spectrum Disorders (ASD) are characterized by developmental impairments in language, behavior and interpersonal relationships that are noted since the first years of life. Early diagnosis and intervention are essential to the evolution and therefore research has been focused on identification strategies that can be used as early as the first year. However, the diagnosis usually is determined only later<sup>(1)</sup>.

Among DEA characteristics the communication disorders are a central feature to the diagnosis. They vary largely, with cases in which lexical and syntax are within the normal limits and language disorders refer basically to its pragmatic aspects and/or discursive abilities, to children that do not develop verbal communication<sup>(2,3)</sup>.

One of the great challenges in studying the basic language abilities of ASD children involves the determination of the adequate tools. The use of some tests determined a considerable variation from the normal language development pattern with atypical patterns of language ability onset and a certain advantage of expressive over receptive language<sup>(4)</sup>.

One tool used to characterize ASD preschoolers' language is the preschool Language Scale (PLS-4) that is in its fourth edition<sup>(5)</sup>. This test is individually applied and is used to identify children with language disorders. It provides standardized scores, proportions and age-associated scales about Total Language, Auditory Comprehension (AC) and Expressive Communication (EC) to children from birth to 6 years, 11 months. The AC subscale assesses the child's comprehension from attention to symbolic play while the EC subscale determines how well the child communicates with others. Therefore, the PLS-4 assesses language comprehension and productions, which are basic competences to language development, since the beginning of communication.

In the study revised four aims were defined: examine the PLS-4 adequacy to assess language abilities; determine the relative advantage of expressive over receptive language; study the relation between language abilities and ASD symptoms

and identify the parent's judgment about their children's functional communicative abilities in routine situations. Other instruments were used to complete the data: the ADOS (*Autism Diagnostic Observation Schedule*), the Vineland scale of adaptive behavior – 2<sup>nd</sup> edition – and the Merrill-Palmer development scale.

The results pointed out to a positive association between non verbal cognitive abilities and language abilities. It was also identified a relative global advantage to the expressive language where higher non-verbal mental age was associated to smaller gaps between expressive and receptive language. Besides that, it was observed that better performances in formal language abilities were associated to better communication functionality.

The authors reinforce the fact that there might be interferences on the results due to the test's format. The AC subscale involves strategies of eye contact and social communication that are more problematic to DEA children. On the other hand, the EC subscale admits more flexible strategies to problem solution (as echolalic responses), allowing a better adaptation to each child's difficulties. The authors also point out to other aspects as the fact that the PLS-4 concentrates in syntax and semantics and do not result on a broad measure of communicative abilities. Therefore, it considers the development of expressive and receptive abilities as independent, differentiating the language development of individuals with DEA from that of children with typical development. The authors remember, however, that longitudinal data are necessary to verify this hypothesis as well as the difference's extension.

The aspects mentioned on the original paper refer to the need of a more deep and comprehensive assessment of these children's language. The results suggest that this tool can be used as an useful measure of the early language development of this group. But very small children, in the first stages of language development will need other material to complete the assessment<sup>(6)</sup>.

The authors mention the use of only one language sample of children under 30 months as limitation of the study. They suggest larger samples as a way to verify the possibility of generalizing the results, although this study had 292 participants with less than 42 months of age.

Therefore the PLS-4 was considered a useful test to the language assessment of small children with ASD.

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The paper's conclusions reinforce the value of using instruments that may identify language disorders in small children and, therefore, allow the early diagnosis.

This paper brings the issue of assessment instruments that are very useful in speech-language pathology, especially in what refers to ASD children. However, it also demands consideration about the test used, once the Brazilian and Canadian realities have many differences besides the linguistic one.

The tool used (PLS-4) is a complete test that can be bought with all the needed material and they are appropriate to the English language and culture. Just its translation would impose several problems regarding linguistic and cultural issues.

Another problem about the use of the PLS-4 is the need of other tests that must be applied by other professionals, generating a dependency on other services or professionals to obtain relevant conclusions about the test. In Brazil, even in the major centers the collaborative activity of different teams in research and assistance is frequently difficult. There are also very few specific centers that provide accessible psychological tests when necessary to obtain information about the patient's non-verbal IQ, which is essential to the adequate use of the PLS-4.

The amount of time required to the test completion is another complication to ASD children, due to their behavioral and attention and difficulties. Besides that, the test requires that the parents have a certain instructional level because they must

respond to the questionnaire without the interference of an examiner, an issue that may restrict its application in our reality.

Considering all these aspects we believe that a test like this can be a reference to the development of specific tests with similar aims but adapted to our reality.

The use of a similar instrument may be relevant and useful to early intervention allowing intervention at the most productive period, favoring a better prognosis.

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