ABSTRACT

Systematic and formal instruments of language in children aged between two and five years are of predominant importance both for the investigation of possible alterations and to propose language intervention. However, currently there are few instruments available in Brazilian Portuguese for research and clinical use. The aim of this study therefore was to present a review on systematic and formal assessment instruments spoken language in preschool, used in scientific research in Brazil, built nationally or in the adaptation and validation process. Seven different instruments have been described in 22 scientific papers, which is a low number compared to other countries, and especially in comparison to non-scientific publications, not necessarily validate the efficiency of the instrument. It is suggested increased investment both in the construction of instruments as in the adaptation and validation of instruments already used in other languages.

KEYWORDS: Language Tests; Child, Preschool; Child Language; Review

INTRODUCTION

In Speech Language Therapy context, the evaluation is one of the most frequent actions in the work routine, whose success is assured by the production of information that helps to raise, confirm or deny a diagnosis hypothesis. It is the purpose of the review to list the set of difficulties and skills in different areas, check and specify the problems and also to obtain data for decision making.

The evaluation is a complex process in which specific and appropriate procedures characterize individual performance at any given time. However, one must consider the various influences that the subject suffered throughout life and also the influences arising from the task itself and the peculiarities belonging to the environment in which the evaluation is conducted.

Psychology is the science that supports the use of measuring instruments matter that has been widely debated. The instruments - tests - are considered systematic / formal procedures towards investigating situations of decision making. The formal and systematic evaluation emerged in the late nineteenth century, along with psychometrics, which formed the basis of assessment technology.

Changes of spoken language can influence the social and academic skills of children learning, and early identification of this modification also enables early intervention, thus contributing to minimize the aggravation and persistence of these changes.

In this direction, different methods are used in the evaluation of spoken language, and its effectiveness will depend on the use of appropriate procedures to...
conditions of age group and language ability of the subject reported that supplemented and appreciated by a professional, allow diagnostic decision making and intervention\textsuperscript{9-12}. Knowledge and practices diffused in other areas may contribute to the assessment, diagnosis, treatment and monitoring of human communication and its disorders\textsuperscript{13}. One of the ways of dissemination of such knowledge under evaluation refers to the use of standardized / formal tests that provide a comprehensive or specific assessment of the studied profile\textsuperscript{14-16}.

Brazil is still in need regarding the availability of systematic and formal instruments for assessment and diagnosis in the field of Speech, Language and Hearing Sciences in general, and especially for preschool children\textsuperscript{17-20}. The characterization of the target population of this study, the “preschool” term was adopted for didactic purposes. According to Guidelines and Bases of National Education, preschool population is characterized by children of four and five years old\textsuperscript{21}, however for the speech language assessment taking into account the importance of identifying early changes\textsuperscript{5-8} that concept has been expanded to covering children aged two to five years old.

In front of the foregoing, this current study aimed to present a literature review on systematic and formal assessment instruments of spoken language in children between two and five years old, used in scientific and/or clinical practice investigations, in Brazil, built in nationwide or in adaptation and validation process.

**METHODS**

Scientific articles that used protocols, evidence or systematic/formal tests were raised, indexed in national and international data. It was used the descriptors in health sciences (DeCs), related to the purpose of this study, i.e., systematic and formal evaluation instruments of preschoolers’ spoken language, used in scientific and/or clinical practice researches, in Brazil.

Searches were conducted on the basis of national and international data: Virtual Health Library (VHL) - Bireme (Lilacs, Ibecs and Adolec) and PUBMED / MEDLINE.

For this, the adopted procedures were divided into three separate searches: the first and second were held in national databases; and the third in the international databases.

The descriptors were selected after consulting the Health Sciences Descriptors (DeCS-VHL) and crossed as follows:

**Search 1:** (“Child Language”) Or “Language Disorders”) Or “Speech Pathology”) Or “Language”) Or “Language Development”) Or “Language Development Disorders”) Or “Verbal Behavior”) or “Language Arts”) or “Verbal Learning”) or “Vocabulary”) or “Narration” [Subject Descriptor] AND “Language Tests” [Subject descriptor] AND (“Child, Preschool”) or “Child Rearing”

**Search 2:** “Cross-cultural comparison” [Words] and “language” [Words]

**Search 3:** (“Language Tests”[Mesh]) AND (“Child Language”[Mesh]) OR “Language Disorders”[Mesh]) OR “Speech-Language Pathology”[Mesh]) OR “Language”[Mesh]) OR “Language Development”[Mesh]) OR “Language Development Disorders”[Mesh]) OR “Verbal Behavior”[Mesh]) OR “Language Arts”[Mesh]) OR “Verbal Learning”[Mesh]) OR “Vocabulary”[Mesh]) OR “Narration”[Mesh])

The exclusion criteria for this literature study were: (1) repeated articles as they are published in more than one language; (2) repeated articles located in in more than one database; (3) review articles; (4) articles that presented different casuistry with different chronological age of preschool age group (two to five years old); (5) studies conducted in other languages (i.e. Spanish) and (6) instruments designed to assess only one component of spoken language (i.e. “Teste Brasileiro Infantil de Repetição de Pseudopalavras” (BCPR)\textsuperscript{22}; “Teste de Vocabulário Auditivo Expressivo” (TVExp)\textsuperscript{23}; Avaliação Fonológica da Criança (AFC)\textsuperscript{24}; Consciência fonológica: instrumento de avaliação sequencial (CONFIAS)\textsuperscript{25} e Perfil das Habilidades Fonológicas (PHF)\textsuperscript{26}.

**LITERATURE REVIEW**

The results of the search are willing to follow, according to the databases that were selected (Figure 1).
With an initial focus in the international instruments for the evaluation of spoken language that have been adapted or are in the process of adaptation to the linguistic culture of Brazilian Portuguese, is quoted initially the "Illinois Test of Psycholinguistic Abilities" (ITPA), adapted to Brazil in 1975/1977. This test is intended to investigate psycholinguistic skills, based on communication processes in children between two and 10 years.

At the end of the survey, 22 articles were selected that contemplated a total of seven systematic and formal procedures for language evaluation of subjects in preschool. Among these seven instruments, four are international and three are instruments developed in Brazil and do not have international version.

Following it will be presented the international instruments that evaluate the spoken language of preschool children, which have been adapted or are in the process of adaptation to the linguistic culture of Brazilian Portuguese, and at the end, the presentation of the instruments built nationwide.

Legend: BIREME = Virtual Health Library; N = number of papers found; ITPA = "Illinois Test of Psycholinguistic Abilities"; PPVT = "Peabody Picture Vocabulary Test"; PODCLE = "Protocolo para Observação do Desenvolvimento Cognitivo e de Linguagem Expressiva"; PODCLE-r = "Protocolo para Observação do Desenvolvimento Cognitivo e de Linguagem Expressiva - revisado"; ABFW = "Teste de Linguagem Infantil – ABFW"; PROC = "Protocolo de Observação Comportamental"; TELD = "Test of Early Language Development: Third Edition"; TOLD-P:3 = "Test of Language Development Primary: 3".

Figure 1 - Results relative to the bibliographic search

International language assessment instruments adapted or in the process of adaptation to Brazilian Portuguese

With an initial focus in the international instruments for the evaluation of spoken language that have been adapted or are in the process of adaptation to the linguistic culture of Brazilian Portuguese, is quoted initially the "Illinois Test of Psycholinguistic Abilities" (ITPA), adapted to Brazil in 1975/1977. This test is intended to investigate psycholinguistic skills, based on communication processes in children between two and 10 years.
Instruments for language assessment

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Instruments built nationwide: Protocols

In Brazil, there are two published protocols which consider the expressive and receptive language level: the “Protocolo de Observação Comportamental” - PROC\(^{34}\) and “Protocolo para Observação do Desenvolvimento Cognitivo e de Linguagem Expressiva” - PODCLE\(^{35}\), and its revised version (PODCLE-r)\(^{36}\).

PROC is focused on the evaluation of the communicative and cognitive development in children aged one to four years old, through behavioral observation for early detection of changes in receptive oral language development. Importantly a 2012 recent study provided the reference values for a quantitative analysis of that procedure\(^{34,37}\).

PODCLE and PODCLE-r are focused on the analysis of the diversity of achievements and linguistic productions presented by children from birth to seven years old. They provide a set of information that guides the evaluator look for specific aspects included by the protocol, but does not include a reference value for the analysis of quantitative point of view - in which the authentic and generalized data that drive the analysis for confirmation of a pre-established hypothesis are disposed\(^{35,36,38}\).

Table 1 summarizes the instruments described previously, especially the information of authorship, year of publication, production and age range of the instrument.

It is observed that the instruments found only two (TELD and TOLD-P: 3) evaluate receptive and expressive aspects in the same instrument. Only the expressive ability is addressed by three instruments (ABFW, PODCLE and PODCLE-r), and receptive abilities in three other instruments (PROC, PPVT and ITPA).

The obtained results in this study are compatible with the literature regarding the lack of validated instruments for evaluation of spoken language in preschool children\(^{17-20}\).

In brief survey on the American Speech-Language-Hearing Association (ASHA) website, it was found as a result an approximate number of 20 instruments available for use in the evaluation of receptive or expressive language of preschool children in the English language\(^{39}\). A discrepant result when compared to that found in the current study, which records four instruments used in research in Brazil (ITPA, PPVT, TELD and TOLD-P:3), in which three of them are restricted to researchers who have adapted and therefore are not available for clinical use in Brazil. Therefore, there are only three instruments available for clinical use, because they are built nationwide (ABFW, PROC, PODCLE/PODCLE-r). Other instruments found during the

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search fitted in the exclusion criteria for allowing reviews of specific language skills (i.e. receptive/expressive vocabulary or phonology).

**CONCLUSION**

Based on these data, it is confirmed the lack of instruments for evaluating spoken language in the age group investigated and it is suggested, therefore, a greater investment in the study of instruments for assessing the language of preschool children both in construction as in the translation, adaptation and validation of instruments used in other countries.

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RESUMO

Instrumentos sistemáticos e formais de avaliação da linguagem em crianças com idade entre dois e cinco anos são de suma importância, tanto para a investigação de possíveis alterações quanto para propor intervenção fonoaudiológica. No entanto, atualmente, são poucos os instrumentos disponíveis no Português brasileiro para investigações e uso clínico. O objetivo do presente estudo, portanto, foi apresentar uma revisão bibliográfica sobre instrumentos sistemáticos e formais de avaliação da linguagem falada em pré-escolares, utilizados em investigações científicas no Brasil, construídos em âmbito nacional ou em processo de adaptação e validação. Foram descritos sete diferentes instrumentos em 22 artigos científicos, número este baixo em comparação a outros países e, sobretudo, em comparação a publicações não científicas, que não necessariamente validam a eficiência do instrumento. Sugere-se maior investimento, tanto na construção de instrumentos quanto na adaptação e validação de instrumentos já utilizados em outras línguas.

DESCRITORES: Testes de Linguagem; Pré-Escolar; Linguagem Infantil; Revisão

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