DOI: 10.48305/jrrs.2025.47203.1180 Published by Vesnu Publications

Adaptation and Feasibility of Implementing the Oral Inferential Comprehension Intervention Protocol for Persian-Speaking Children with Developmental Language Disorder: An Action Research

Negar Sadat Asadi[1], Suze Leitão[2], Emily Dawes[3], Mary Claessen[4], Seyed Amin Modarres Zadeh[5], Yalda Kazemi[6]

Original Article

Abstract

Introduction: Oral inferential comprehension is an important language skill, and children with Developmental Language Disorder (DLD) may experience difficulties in this area. This study aimed to translate and culturally and linguistically adapt the Oral Inferential Comprehension Intervention (OICI), examine its Persian content, and preliminarily assess its feasibility for Persian-speaking children with DLD.

Materials and Methods: We conceptually translated the OICI into Persian and revised it through researcher review and consultation with the development team. We examined recommended storybooks for linguistic and cultural appropriateness. Three speech-language pathologists with at least three years of clinical experience in pediatric language intervention reviewed the treatment instructions. Two Persian-speaking experts evaluated the storybooks using the Storybook Profile System: a speech-language pathologist and a researcher in philosophy for children. In the feasibility phase, we implemented the protocol with three Persian-speaking children aged 5–6 years with DLD, each with a mean length of utterance of at least 4 words. We analyzed session observations descriptively.

Results: Expert panel ratings supported the appropriateness of the treatment instructions, therapeutic goals, delivery procedures, selected storybooks, and target age range. Pilot implementation indicated that the protocol structure and activity sequence were feasible, and children participated in story-based activities. However, we observed decreased cooperation and attention, one child's dependence on the mother, imitation of peers' responses, and difficulties with some emotional and inferential questions and higher-level vocabulary. Practical modifications included visual cues, flexible timing, attention-management strategies, and more familiar Persian vocabulary.

Conclusion: Preliminary findings suggest that the core principles of the OICI can be implemented with Persian-speaking children with DLD, although flexibility in storybook selection, vocabulary, attention management, and session timing is needed. Larger controlled group studies are recommended.

Keywords: Inference; Comprehension; Developmental language disorder; Children; Persian

Citation: Asadi NS, Leitão S, Dawes E, Claessen M, Modarres Zadeh SA, Kazemi Y. **Adaptation and Feasibility of Implementing the Oral Inferential Comprehension Intervention Protocol for Persian-Speaking Children with Developmental Language Disorder: An Action Research.** J Res Rehabil Sci 2024; 20.

Received date: 31.12.2023 Accept date: 04.02.2024 Published: 03.04.2024

1- Department of Speech Therapy, School of Rehabilitation Sciences, Isfahan University of Medical Sciences, Isfahan, Iran
2- Professor, School of Allied Health, Faculty of Health Sciences, Curtin University, Perth, Australia
3- PhD, School of Allied Health, Faculty of Health Sciences, Curtin University, Perth, Australia
4- Manager, Professional Recognition, Speech Pathology Australia, Curtin University, Perth, Australia
5- PhD, Department of Speech Therapy, School of Rehabilitation Sciences, Isfahan University of Medical Sciences, Isfahan, Iran
6- Assistant Professor, Department of Speech Therapy, School of Rehabilitation Sciences, Isfahan University of Medical Sciences, Isfahan, Iran
Corresponding Author: Yalda Kazemi; Assistant Professor, Department of Speech Therapy, School of Rehabilitation Sciences, Isfahan University of Medical Sciences, Isfahan, Iran; Email: kazemi@rehab.mui.ac.ir

This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

Language is one of the most fundamental human cognitive abilities, playing a crucial role in communication, learning, and social interaction (1). Language comprehension is one of two functional dimensions that is not merely limited to understanding the meaning of words and sentences but also entails inferring and extracting information that is not explicitly stated. Successful message understanding occurs when the listener, beyond grasping the explicit information provided, can also understand the relationships among pieces of information, prior knowledge, and the speaker's intent (3). In this context, inferential comprehension is considered a key component of language comprehension (4). Inferential comprehension refers to the ability to connect presented information, use prior knowledge, bridge information gaps, predict events, and draw conclusions about the content of a message (5). Research indicates that this ability begins to develop around ages three to four and grows rapidly during the preschool years (6).

About 7% of children have significant difficulty acquiring and using language without any apparent medical or neurological cause—a condition known as Developmental Language Disorder (DLD) (7). These children may experience deficiencies across various aspects of language, including vocabulary, syntax, narrative skills, and comprehension (8–10). Children with DLD typically perform less well than their peers in inferential comprehension and may rely excessively on the literal interpretation of messages (4). This deficit can significantly affect their academic success, reading comprehension, social communication, and educational participation (11).

Previous studies show that skills such as vocabulary, narrative retelling, literal comprehension, and theory of mind play a significant role in the development of oral inferential comprehension (6, 12). Furthermore, according to the scoping review by Asadi et al. (2023), narrative-based interventions and explicit instruction in verbal inferencing may improve narrative skills in children with developmental language disorder (DLD) (13). Accordingly, Dawes et al. (2019) designed the Oral Inferential Comprehension Intervention (OICI) protocol, which integrates these components into a structured, story-based intervention program (14). In addition to the original language—English—this program has been translated into Swedish and French, and the corresponding protocols are publicly available on the development team's website (https://languageandliteracyinyoungpeople.com/resources/free-downloads).

Despite the importance of this area, no organized, tailored intervention protocol has previously been available for supporting the oral inferential comprehension of Persian-speaking children with Developmental Language Disorder (DLD). Therefore, this study aimed to translate and culturally and linguistically adapt the OICI protocol, examine the content suitability of the Persian version through expert review, and conduct a preliminary assessment of its feasibility for Persian-speaking children with DLD.

Materials and Methods

This action research study aimed to translate, cross-culturally and linguistically adapt, review the content of, and initially assess the feasibility of an intervention protocol for treating oral inferential comprehension in Persian-speaking children with developmental language disorder.

Procedure: The study was conducted in four sequential phases with the following objectives: conducting a needs assessment among speech-language pathologists; translating and culturally and linguistically adapting the protocol; reviewing the content of the treatment guidelines and the suitability of the storybooks; and conducting a preliminary assessment of the feasibility of implementing the protocol with children with DLD. The fourth phase did not evaluate treatment efficacy; instead, it aimed to identify potential barriers and challenges to implementing the Persian version, examine children's engagement, and identify aspects requiring modification or further clarification before wider use of the protocol.

Participants: In the needs assessment phase, 10 speech therapists with at least three years of clinical experience in children's language therapy completed a needs assessment form. In this form, they described their experience using oral inferential comprehension treatment methods or protocols in four questions and stated their need for a coherent, organized guide.

In the content review phase of the treatment implementation guidelines, three speech therapists with at least three years of clinical experience in children's language therapy reviewed the Persian version of the protocol. These therapists answered a questionnaire using a 5-point Likert scale and two qualitative questions about the protocol's content. The questionnaire examined the clarity of the instructions; their suitability for the child and the therapist; the order of activity presentation; the suitability of the selected books; and the program's suitability for the target age group.

To assess the suitability of storybooks for the

program's goals, two Persian-speaking experts participated: a child speech therapist and a researcher in philosophy for children. The philosophy-for-children researcher's expertise was in teaching children to think and reason, including using stories with argumentative capacity. The two experts were asked to evaluate storybook characteristics using the Storybook Profile System (SPS), which assesses story structure across components such as characters, time, place, actions, and emotions. The writers' panel and the development team qualitatively reviewed and finalized their comments. They were also asked to extract higher-level vocabulary from each story and to provide meanings and synonyms appropriate to the children's language level. Spencer et al. (2023) designed the SPS form (15) to determine a book's difficulty level and suitability for different groups; Kazemi translated and adapted it into Persian with the designer's permission, and it is available on the author's website (www.trinastoolbox.com).

Finally, in the initial feasibility phase, three Persian-speaking children aged 5 to 6 years with developmental language disorder participated. Inclusion criteria included being between 5 and 6 years old, being Persian-speaking and exposed exclusively to Persian, receiving a DLD diagnosis from a pediatric speech therapist (using expert clinical judgment and informal language testing), not having a neurodevelopmental or known biomedical condition, and having an average utterance length of at least four words. Speech therapists specializing in language development referred children. Informed parental consent was obtained using a form provided by the university's research vice chancellor.

Translation and cultural-linguistic adaptation process

After obtaining permission from the protocol development team, the English version of the OICI was translated into Persian and adapted for use in the Persian-speaking community as follows. The translation emphasized conceptual transfer; that is, preserving the therapeutic goal and the main meaning of the instructions while avoiding literal translation when it was incompatible with Persian structure or children's cultural experience. During this process, the first and corresponding authors reviewed and rewrote the Persian version three times. In three Skype consultation sessions, the second through fourth authors raised ambiguities related to program implementation and discussed how to maintain the intervention's main goals and principles. The development team emphasized conceptual translation and the use of Persian-appropriate examples and phrases. When the protocol content for Persian-speaking children required changes, the team made them to preserve the therapeutic goal and core activity mechanism, with the development team's approval. Because the development team members did not speak Persian, they reviewed the protocol by discussing treatment goals, activity structure, and the detailed changes made, rather than directly assessing the Persian text.

Adaptation of storybooks and content review of treatment guidelines

Alongside the protocol adaptation process, the team selected appropriate storybooks for program implementation. In consultation with the development team, we decided to evaluate the books using the SPS criteria for suitability to the program goals (www.trinastoolbox.com). For each story, we reviewed the narrative macrostructure, including characters, time, place, actions, initial events, internal responses, planning, and consequences. We also extracted higher-level vocabulary from the stories and reviewed meanings appropriate for Persian-speaking children aged 5 to 6. We rewrote “Think aloud comments and questions” related to literal and inferential comprehension to align with the story structure, treatment goal, and comprehensibility for Persian-speaking children.

Ultimately, four books were selected for the feasibility phase: The Very Brave Bear (written by Nick Bland, translated by Masoumeh Nafisi, Simay Shargh Publications), The Very Hungry Bear (written by Nick Bland, translated by Masoumeh Nafisi, Simay Shargh Publications), The Very Noisy Bear (written by Nick Bland, translated by Masoumeh Nafisi, Simay Shargh Publications), and The Gruffalo (written by Julia Donaldson, translated by Atusa Salehi, Center for the Intellectual Development of Children and Adolescents Publications). The first reason for reviewing these titles was that two of the books were the same titles used in the development team's original program and had already been translated into Persian. Two Persian-speaking experts, including a child speech therapist and a philosophy-for-children researcher, then reviewed the books for inferential content, suitability for children, and image suitability.

After preparing the initial Persian version, we identified sections of the protocol likely to cause conceptual or implementation ambiguity for the therapist or the child. We sent them to an expert panel for review. The panel consisted of three speech therapists with at least three years of clinical experience in child language therapy. The experts were asked to comment on the suitability of the instructions for the therapist and the child, the order and manner of

presenting the activities, the suitability of the selected books, and the program's suitability for 5- to 6-year-old children. We presented five questions using a five-point Likert scale and two qualitative questions. In the quantitative analysis, we calculated the average score for each item and used the degree of agreement among experts as the criterion for accepting each indicator. In the qualitative section, we reviewed and categorized the experts' comments and suggested corrections, then implemented them in consultation with the development team.

Initial assessment of feasibility of implementing the protocol

After modifications from the translation, adaptation, and expert panel processes, we implemented the Persian version of the protocol with three Persian-speaking children with DLD. Initially, the parents were informed of the study's purpose and how their child would participate. After answering their questions, the researchers obtained informed consent. Inclusion criteria included a diagnosis of developmental language disorder by a specialist speech therapist, age 5 to 6 years, a mean utterance length of at least four words, and no known hearing, neurological, or cognitive disorder. The protocol was implemented in small-group sessions (with three children) in accordance with the original guidelines and structure. Four sessions related to the story of |"The Gruffalo" were presented for approximately 45 minutes each, and three other books were each presented in one session for approximately 30 minutes. The total number of sessions was seven.

After consulting with the development team during the pilot implementation, the following factors were considered to affect feasibility: the level of cooperation and participation among the children; the ability to maintain the children's attention throughout the session; the feasibility of implementing the sequence of protocol activities; the ability to achieve the goals of each session; the ability to use literal and inferential questions; the ability to use clues and scaffolding techniques; the difficulty of vocabulary and story content; the ability to use pictures and story maps; and challenges related to group implementation. We also recorded items that required modification or greater flexibility during implementation.

Because this study did not use a standard tool or an independent questionnaire to measure parental or therapist acceptance and fidelity quantitatively, these components are reported qualitatively and descriptively, and their results will not be interpreted as quantitative indicators of feasibility.

Structure of the Therapy Sessions

Here, the story “The Gruffalo” is presented as an example in the protocol. The development team will provide the localized protocol, which will include other sessions with full content. The Gruffalo story protocol was implemented over four sessions as follows: in the first and second sessions, shared reading, story mapping, and story retelling were targeted; in the third session, shared reading, story retelling, and focusing on the characters' emotions were practiced; and in the fourth session, shared reading, story retelling, and prediction activities were implemented.

The story map served as a graphic organizer to support understanding, recall, and retelling of the story structure. During therapy, the therapist sat at the children's level, and the book was placed on a table in front of them so all three children could see the images. The therapy activities followed the adapted version of the protocol (available on the development team's website).

Principles of Intervention

The main principles of the intervention in the Persian version, while maintaining the structure of the original protocol, included focusing on the discourse level, story retelling, literal and inferential comprehension, shared reading, using open-ended inferential questions, integrating theory of mind skills, therapist thinking aloud, relating story events to the child's experiences, metanarrative awareness, using scaffolding techniques, graphic organizers, explicitly teaching inferential strategies, teaching higher-level vocabulary, creating interaction and interest in shared reading, and repeated reading. Scaffolding techniques included reviewing or rephrasing questions, providing semantic and phonological cues, and using sentence-completion tasks (14).

Data Analysis Method

We analyzed the needs assessment data descriptively. In the content review phase of the treatment instructions, we calculated mean scores for Likert-scale items and thematically examined experts' qualitative responses. In the feasibility phase, we recorded and analyzed problems, implementation barriers, children's reactions, participation levels, and items requiring modification during sessions, using descriptive and qualitative methods. Given the sample size of three children, we did not perform inferential statistical analyses or draw conclusions about the treatment's effectiveness; in addition, the study's primary objectives did not include assessing treatment effectiveness.

Results

Results of the needs assessment phase

In the needs assessment phase, 10 speech therapists were surveyed. All speech therapists considered a treatment method for inferential reasoning to be necessary, and seven reported that they did not know a specific method for the organized treatment of oral inferential comprehension. These findings indicated that, from the perspective of some participating therapists, a structured guide is needed to address inferential comprehension skills and higher-level language.

Results of the content review phase of the guidelines

Three expert panel members reviewed the Persian version of the protocol. Table 1 presents experts' scores for five items.

Overall, the experts' scores, by panel agreement, indicated that the Persian version has a suitable initial fit for use with Persian-speaking children aged 5 to 6 years. The lowest average agreement concerned the program's appropriateness for the target age group and the use of selected books, both of which averaged 4 out of 5, considered an acceptable level of content approval.

Findings of the initial feasibility assessment phase

In this section, we present observations recorded during implementation about the ease of the instructions, the challenges encountered, and how we resolved them for three Persian-speaking children with DLD. First, the group implementation of the protocol was possible, and the main activities of the protocol, including joint reading, inferential and literal comments and questions, clues, and the general order of activities, were applicable.

However, the pilot implementation revealed several challenges: First, children's cooperation and attention decreased over time. One child's attention decreased after about 10 minutes, and the child played with the available equipment. In the other child, we observed significant dependence on the mother, and the child cooperated mainly in the mother's presence and embrace. In some cases, children also imitated each other's answers, which could affect their independent responses. In some sessions, it was not possible to achieve all the goals. Another challenge was that children did not answer some questions related to feelings and reasoning. Some story vocabulary and the meanings presented for higher-level words also seemed difficult for the children; this difficulty was observed in both meaning and, in some cases, pronunciation. In contrast, children showed strong interest in group participation and books; they cooperated well in retelling the story, and the pictures helped them answer the questions.

Modifications resulting from the trial run

Based on findings from the initial implementation, we proposed a number of amendments and recommendations for the Persian version of the protocol. The first case was that when children lose attention, they should be redirected to the content of the story by implementing non-verbal and even subtle but prominent attention-getting techniques, such as the direct expression of the therapist's face towards the child, or a gentle tap in front of the child on the table. In addition, the therapist should remind children of their turn to answer and, if necessary, change the order of turns to maintain their attention. The therapist should also provide short opportunities for rest and play if attention decreases. During implementation, it is suggested to use book images more often to support retelling of books with either difficult plots or long story maps. For session duration, consider more flexibility based on the children's abilities and needs. To present a story with difficult concepts, explain more in advance and use vocabulary meanings and definitions appropriate to their language development level. Also, use pictures, movements, and other visual clues to support vocabulary comprehension. If a non-Persian or specialized word is difficult for children, use a more familiar Persian alternative, provided the treatment goal and target concept are maintained, and more intervention sessions with shorter duration may be provided.

Discussion

The present study aimed to translate and culturally and linguistically adapt the OICI protocol for use with Persian-speaking children with DLD, examine its content suitability from the perspective of experts, and initially assess its feasibility in a clinical setting.

The needs assessment phase found that most therapists in the survey did not have a specific, organized protocol for treating oral inferential comprehension or were not familiar with one.

Table 1. Experts' Scores for five items

Items	Expert 1	Expert 2	Expert 3	Average
Adequacy of translated and adapted instructions for the therapist and the child	5	4	4	4.33
Appropriateness of the order of presentation of instructions	5	5	4	4.67
Appropriateness of the manner of presentation of instructions and timing of activities	5	5	4	4.67
Agreement with the use of books selected based on SPS	4	4	4	4.00
Appropriateness of the program for children aged 5 to 6	5	4	3	4.00

This finding may indicate a need to develop and make structured interventions in this area available in the speech therapy setting; however, given the limited sample size and sampling method, generalizing this finding to the entire speech therapy community requires caution.

In the translation and adaptation process, we adapted the linguistic content and examples to the characteristics of the Persian language and the experiences of Persian-speaking children, while maintaining the therapeutic goals and main principles of the OICI. This was especially important for stories, higher-level vocabulary, and inferential questions. The pilot implementation showed that some story vocabulary was difficult for Persian-speaking children; therefore, in clinical use of the Persian version, clinicians should pay attention to the child's vocabulary level. The expert panel consensus analysis also showed that the average scores for the five factors examined ranged from 4 to 4.67 out of 5.

One important finding of the feasibility phase was a decrease in children's attention and cooperation during sessions. This suggests that session duration should align with the child's attentional capacity. Although the protocol's basic structure was maintained, clinical implementation may require short breaks or slight changes in the order of turns or shorter sessions, over a longer during of intervention to sustain the child's participation. Group implementation also had advantages and challenges. Children benefited from peers and joint activity, but in some cases, they imitated each other's responses. Imitation is not necessarily a therapeutic problem and can be a learning pathway; however, it should be considered when assessing the child's independent response. When group implementation hinders the child's participation or progress, individual implementation can be considered as a clinical option, and individual therapy can be included in the child's intervention program. Another finding was difficulty with some reasoning- and emotion-related questions. This finding may indicate that using the protocol with children who still need practice with skills such as understanding complex language, answering questions, understanding emotions, and theory of mind may require additional preparation or support. In these cases, scaffolding techniques and semantic and visual cues, in the form of modeling using think-aloud comments, become more important. Overall, the pilot implementation showed that the protocol's main principles apply in a Persian-speaking clinical setting. However, implementation requires clinical flexibility in book selection, vocabulary explanation, maintaining attention, and adjusting session pace.

Limitations

The present study has several important limitations to consider when interpreting the findings. First, only three children participated in the feasibility phase. Accordingly, findings from this phase are limited to identifying preliminary implementation challenges and barriers and do not support conclusions about the protocol's effectiveness or generalizability. Second, translation and cultural adaptation involved conceptually equivalent translation, review by the research team, and consultation sessions with the protocol developers. However, because the developers were not proficient in Persian, they could not directly evaluate the Persian version. Third, no standardized measure was used to assess intervention acceptability from the perspectives of parents or the treating clinician, nor was a quantitative measure of clinician treatment fidelity employed. Consequently, feasibility was evaluated primarily through clinical observation and qualitative analysis of the challenges and successes encountered during protocol implementation. Finally, implementation challenges included delays in obtaining research and ethics approvals, difficulty recruiting participants due to the program's extended participation duration, and limited cooperation from some clinicians in recruiting participants.

Recommendations

Future studies with larger sample sizes, multiple therapists, and quantitative measures of feasibility and protocol adherence are recommended, followed by controlled studies to evaluate the effectiveness of the Persian version of the protocol. Further research should also investigate its use in other clinical populations with difficulties in inferential comprehension. The effects of varying session duration and delivery format, including group versus individual delivery, should also be explored.

Conclusion

This study aimed to translate and culturally and linguistically adapt the OICI protocol and to conduct a preliminary assessment of its usability for Persian-speaking children with developmental language disorder. Expert review indicated that the content of the Persian version demonstrated acceptable preliminary suitability for the target age group. Pilot implementation with three children also indicated that the core intervention components—including shared book reading, literal and inferential questions, story retelling, and scaffolding techniques—could be

implemented in a Persian-speaking clinical setting.

However, pilot implementation also revealed challenges related to sustaining attention, facilitating children's participation, the difficulty of certain vocabulary items and inferential questions, the use of story maps, and group delivery. Revisions informed by this phase were incorporated into the final version and should be followed when using the protocol in clinical practice.

As evaluating effectiveness was outside the scope of this study, the present findings should not be interpreted as evidence of treatment effectiveness. Accordingly, no data on children's responses to the intervention were reported.

Acknowledgments

The authors would like to thank the participating children and their parents, as well as the experts who contributed to the translation, cultural adaptation, and content validity assessment of the intervention protocol.

Authors' Contribution

Study conception and design: Negar Sadat Asadi, Suze Leitão, Emily Dawes, Mary Claessen, Yalda Kazemi
Funding acquisition: Yalda Kazemi
Administrative, technical, and operational support: Negar Sadat Asadi, Yalda Kazemi
Participant recruitment: Negar Sadat Asadi, Yalda Kazem
Data collection: Negar Sadat Asadi, Yalda Kazemi
Analysis and interpretation of results: Negar Sadat Asadi, Suze Leitão, Emily Dawes, Mary Claessen, Amin Modarres Zadeh, Yalda Kazemi
Manuscript preparation: Negar Sadat Asadi, Suze Leitão, Emily Dawes, Mary Claessen, Amin Modarres Zadeh, Yalda Kazemi
Critical review of the manuscript for important intellectual content: Negar Sadat Asadi, Suze Leitão, Emily Dawes, Mary Claessen, Amin Modarres Zadeh, Yalda Kazemi.
Final approval of the manuscript for submission: Negar Sadat Asadi, Suze Leitão, Emily Dawes, Mary Claessen, Amin Modarres Zadeh, Yalda Kazemi
Accountability for the integrity of the study from inception to publication and for responding to reviewers' comments: Negar Sadat Asadi, Suze Leitão, Emily Dawes, Mary Claessen, Amin Modarres Zadeh, Yalda Kazemi

Funding

This study was based on Negar Asadi's master's thesis in Speech Therapy at Isfahan University of Medical Sciences. The project was approved by the university's Vice-Chancellery for Research (Project number: 3401315; Ethics approval code: IR.MUI.REC.1401.044), and financial support was provided by the Vice-Chancellery for Research and Technology at Isfahan University of Medical Sciences through its funding program for postgraduate theses.

Conflict of Interest

The authors did not have a conflict of interest.

References

1. McGregor KK. How we fail children with developmental language disorder. Language, speech, and hearing services in schools. 2020; 51(4): 981–92.
2. Hauptman M, Blank I, Fedorenko E. Non-literal language processing is jointly supported by the language and theory of mind networks: Evidence from a novel meta-analytic fMRI approach. Cortex. 2023; 162: 96–114.
3. Joseph H, Wonnacott E, Nation K. Online inference making and comprehension monitoring in children during reading: Evidence from eye movements. Quarterly Journal of Experimental Psychology. 2021; 74(7): 1202–24.
4. Bishop DVM. Uncommon Understanding (Classic Edition): Development and disorders of language comprehension in children: Taylor & Francis; 2014.
5. Leonard LB. Children with specific language impairment and their contribution to the study of language development. Journal of child language. 2014; 41(S1): 38–47.
6. Filiatrault-Veilleux P, Bouchard C, Trudeau N, Desmarais C. Comprehension of inferences in a narrative in 3-to 6-year-old children. Journal of Speech, Language, and Hearing Research. 2016; 59(5): 1099–110.
7. Calder SD, Brennan-Jones CG, Robinson M, Whitehouse A, Hill E. The prevalence of and potential risk factors for Developmental Language Disorder at 10 years in the Raine Study. Journal of Paediatrics and Child Health. 2022; 58(11): 2044-50.
8. Sansavini A, Favilla ME, Guasti MT, Marini A, Millepiedi S, Di Martino MV, et al. Developmental Language Disorder: Early Predictors, Age for the Diagnosis, and Diagnostic Tools. A Scoping Review. Brain Sci. 2021; 11(5).
9. Norbury CF, Gooch D, Wray C, Baird G, Charman T, Simonoff E, et al. The impact of nonverbal ability on prevalence and clinical presentation of language disorder: Evidence from a population study. Journal of child psychology and psychiatry. 2016; 57(11): 1247–57.
10. Bishop DVM, Snowling MJ, Thompson PA, Greenhalgh T, consortium C. CATALISE: A Multinational and Multidisciplinary Delphi Consensus Study. Identifying Language Impairments in Children. PLOS ONE. 2016; 11(7): e0158753.

11. Conti-Ramsden G, Durkin K, Toseeb U, Botting N, Pickles A. Education and employment outcomes of young adults with a history of developmental language disorder. International journal of language & communication disorders. 2018; 53(2): 237-55.
12. Filiatrault-Veilleux P, Bouchard C, Trudeau N, Desmarais C. Inferential comprehension of 3–6 year olds within the context of story grammar: A scoping review. International journal of language & communication disorders. 2015; 50(6): 737–49.
13. Asadi NA, Jaberifard FS, Kazemi Y. Intervention Protocols for Narrative Skills and Oral Inferential Comprehension in Children with Developmental Language Disorder: A Scoping Review. Journal of Research in Rehabilitation Sciences. 2023; 19(1): 162–71.
14. Dawes E, Leitão S, Claessen M, Kane R. A randomized controlled trial of an oral inferential comprehension intervention for young children with developmental language disorder. Child Language Teaching and Therapy. 2019; 35(1): 39–54.
15. Seven YC, Spencer TD. Reliability and validity of the Storybook Profile System (SPS): Refining storybook selection practices. 2023.