

Research Article



Developing a Narrative Test and Determining Its Psychometric Properties for Persian-Speaking Children Aged 4 to 5 Years

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Department of Speech Therapy, Rehabilitation Research Center, School of Rehabilitation Sciences, Iran University of Medical Sciences, Tehran, Iran.**Citation** Ardeshiri F, Mohamadi R, Rashed Chitgar E, Saffarian A. Developing a Narrative Test and Determining Its Psychometric Properties for Persian-Speaking Children Aged 4 to 5 Years. *Journal of Modern Rehabilitation*. 2026; 20(1):64-74. <http://dx.doi.org/10.18502/jmr.v20i1.21027> <http://dx.doi.org/10.18502/jmr.v20i1.21027>**Article info:****Received:** 29 Apr 2025**Accepted:** 22 Jul 2025**Available Online:** 01 Jan 2026**ABSTRACT****Introduction:** Between the ages of 2 and 7, children develop the ability to narrate stories with improved detail and organization, including main characters, events, responses, efforts, and settings. Narrative assessment, a tool for evaluating language development, allows speech pathologists to examine syntax, vocabulary, and complexity. This study aimed to develop a tool for assessing storytelling skills in children aged 4-5 years.**Materials and Methods:** This study was conducted in two stages. In the first stage, the story was created, images were designed, and speech therapists assessed face validity. In the second stage, a descriptive-analytical study was conducted in kindergartens in Tehran City, Iran, in 2023. Children were asked to narrate stories based on the provided images, and their narratives were scored using story grammar analysis. Psychometric evaluations included construct validity (assessed via paired t-test), inter-rater reliability (measured using Cohen's kappa), test-re-test reliability (analyzed with the Pearson correlation), and internal consistency (evaluated using the Cronbach α).**Results:** The speech therapists evaluated and confirmed the face validity of the story and images, implementing necessary adjustments. In this regard, construct validity was significant ($P=0.000$), indicating alignment with typical development. Inter-evaluator reliability ($\kappa=0.712$) and test-re-test reliability ($r=0.591$) were moderate to good. Internal consistency varied, with $\alpha>0.5$ in one story and $\alpha<0.5$ in others.**Conclusion:** The test demonstrates validity and moderate reliability, suggesting its suitability for practical applications.**Keywords:**Narration; Preschool age;
Psychometric properties;
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Introduction

Storytelling is a vital skill in children's daily communication from an early age, allowing them to describe real or imaginary events with causal and sequential relationships [1-3]. This skill contributes to language development and predicts future skills in reading, vocabulary, and phonological awareness [4, 5]. Storytelling is organized into two levels: Microstructure (e.g. word diversity, sentence complexity) and macrostructure (e.g. plot, characters, and events) [6].

Children's narrative development evolves through distinct stages. At ages 2-3, children tell "heap stories," consisting of simple, unconnected descriptions. By 3-4 years, they progress to "sequential stories," where events relate to a main theme but lack plot or causal links. By 4-4.5 years, "primitive stories" emerge, containing a beginning, an action, and an ending. In ages 4.5-5, "chain stories" add basic causal and temporal connections, with 4 story elements: initiating event, motivation, action, and consequence. True narrative structure typically appears around ages 5-7, with clear plots and character motives, although story complexity continues to grow [7].

Research indicates that, alongside language development, cultural and environmental factors also shape storytelling abilities. For example, Asian children, who often rely more on nonverbal cues due to cultural norms, may tell simpler stories compared to their European counterparts. Similarly, children with less language exposure tend to have weaker narrative skills [8-13].

Storytelling assessments provide a comprehensive view of children's language skills by testing aspects such as grammar, vocabulary, and pragmatics that other methods may overlook [1, 16]. These assessments are crucial for identifying language delays and understanding the link between narrative development and broader language skills [17-19].

Standardized storytelling assessments typically use 3 methods: story production, story retelling, and personal narrative. Examples include Mayer's frog, where are you? (1969), the Renfrew bus story test, and the profiling oral narrative ability test, all of which evaluate narrative elements such as microstructure and macrostructure in young children [20-22]. The multilingual narrative assessment instrument evaluates bilingual children's storytelling skills across languages [23]. In Iran, Soleimani et al. developed a protocol for children aged 5-6, demonstrating strong content validity and significant test-

re-test reliability [24]. Similarly, Jafari et al. developed a test for the rapid assessment of narrative abilities in 6-7-year-old Persian-speaking children, with high validity and reliability [25].

However, a validated storytelling test specifically for 4- to 5-year-old Persian-speaking children has not yet been designed. This assessment tool would provide speech-language pathologists with an effective instrument for evaluating narrative skills in young children, enabling targeted intervention strategies and potentially mitigating future academic challenges. This research aims to develop a storytelling evaluation test tailored to Persian-speaking children aged 4-5 years and to examine its psychometric properties, ensuring it supports accurate evaluation and intervention strategies for early language development.

Materials and Methods

Study Participants

This study included typically developing Persian-speaking children in two age groups (4-4.5 years and 4.5-5 years) without language disorders. Participants were selected across four stages:

Preliminary stage: Stories validated by experts were tested on 10 Persian-speaking children (ages 4-5) from two Tehran City preschools, who were asked to retell the stories. **Second phase:** Thirty children from 7 preschools in Tehran were selected using random sampling to retell stories with standard images. **Third phase:** One hundred children from various Tehran districts participated in the final test. **Fourth stage:** Among them, 20 children were re-tested to assess test-re-test reliability.

Children were included based on fluency in Persian, scoring above the threshold on the age and stage screening questionnaire (ASQ), and exclusion of any neurological, developmental, or psychiatric disorders. Exclusions were based on unacceptable ASQ scores, behavioral issues, or lack of cooperation.

Study tools

Content validity form: It was developed based on the Lawshe method and reviewed by speech-language pathology experts to confirm the relevance of each test item.

Personal information questionnaire: It is a researcher-created 42-item questionnaire on the child's background, family, medical history, and communication.

ASQ: It is a parent-report screening form for ages 4-60 months that assesses development in communication, motor skills, social, and problem-solving areas, with high reliability ($\alpha=0.79$). Storytelling test: Eight validated stories, tailored to each age group, were assessed for content, face, and construct validity. Recording devices: Participants' responses were recorded using a Samsung Galaxy S21 smartphone and an ASUS laptop for subsequent analysis.

Methodology overview

This study develops a storytelling test to evaluate narrative skills in young children, organized into 4 main stages.

Stage 1: Story selection and preparation

After consulting with children's storytelling experts and drawing on literature on narrative development, the researcher selected animal characters for the story's protagonists to align with the cognitive level of 4- to 5-year-old children. Based on Paul's guidelines for narrative structure, initial story drafts were developed that focused on micro and macro structures, including plot elements such as setting, sequence, and causality. The draft stories were reviewed by a speech therapy expert

for adjustments. Ten draft stories, alongside two questionnaires, were sent to a panel of experts for feedback on necessity and relevance. Following their evaluation, two stories were eliminated, and minor modifications were applied to others. The remaining eight stories were then tested on a small group of children (ten 4- to 5-year-old) to verify comprehension and suitability. Upon successful testing, each story was illustrated with three colorful images to create engaging visuals that matched its progression.

Stage 2: Content and face validity assessment

To establish content validity, a panel of experts (5 speech-language pathologists, 2 professors, 2 experienced therapists, and 1 linguist) evaluated the age appropriateness of each narrative for the target population. This process involved rating each story element as essential, useful, or non-essential (Table 1). To establish face validity, the same panel reviewed whether the illustrations supported the storyline in an age-appropriate way and ensured clarity. Questions posed included the appropriateness of the images, their alignment with the story, and their clarity to aid children in narrative retelling (Tables 2 and 3). Experts were also surveyed on the priority and necessity of using stories in the test; the results are shown in Table 4. Following panel revisions,

Table 1. Content validity ratio

Sentence No.	Story										
	Mr. Mouse's shopping	The Farmer's Farm	Playing With the Ball	Helping	Birthday Gift	Neighbor	Kinder-garten	Chicks	New Friend	Visiting Grandparents	
1											Unnecessary
2	1	0.75	0.75	1	1	1	0.75	0.75	1	0.75	
3	1	1	0.75	1	1	1	1	1	1	1	
4	1	1	0.75	1	-	1	1	1	1	1	
5	1	-	-	-	-	1	-	-	1	1	

Table 2. Questions related to story elements, level 1

Content Validity Questions About Story Elements	Story 1: Mr. Mouse's Shopping	Story 2: The Farmer's Farm	Story 3: Play With The Ball	Story 4: Helping	Story 5: Birthday Gift
Does the story have cohesion?	Sentences should be connected with appropriate conjunctions or related words.	Moderate		Yes	Moderate
Do the stories have suitable introductions, continuations, and conclusions?	Introduction: In a big forest, lives a little mouse.	Yes	Introduction: A shy bear lived in the forest with its mother	Yes	Yes
Does the story have a main event?	The event is incomplete: What should it buy?	Hunger and the need for food should be addressed.	Yes, but it needs revision.	Yes	The challenge is not well expressed.
Does the story have an action following the main event?	Yes	Yes	Yes	Yes	Yes
Are there at least basic story elements (consequence, characters, events, etc.) present?	No	No, the events should be complete	Moderate	Moderate	Moderate
Is the vocabulary diversity in the story appropriate?	Yes	Yes	Yes	Kind deer	Low
Is the syntactic complexity in the story appropriate?	Yes	Yes	Yes	Yes	Low
Are the characters in the story appropriately chosen?	Yes	Yes	No, a character should be added	Yes	Yes
Is the sequence of the story appropriate?	Yes	Yes	Yes	Yes	Yes

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the researcher further assessed the final draft with a small group of 10 children divided into 2 age categories (4-4.5 and 4.5-5 years), using children's responses to finalize the stories.

Stage 3: Test implementation and data collection

After content and face validity adjustments, the storytelling test was administered to 100 preschoolers, selected via random sampling from various kindergartens. Parental consent was secured for each participant. The storytelling sessions were administered individually in quiet kindergarten classrooms. Each child listened to a narrative and was subsequently asked to retell it. This procedure, which included audio recording of the narrations, was designed to comprehensively assess children's storytelling abilities by capturing nuanced aspects of their narrative production. Children's retellings were scored on 10 key story elements. A subsample of 25 children was asked to narrate all 8 stories, with a maximum possible score of 40 points. The stories were then transcribed and analyzed according to story rules, including the initiating event, main characters, response, plan, and

consequences. The presence of each structural element was scored as "1" or "0" based on the child's narrative output.

Stage 4: Validity and reliability testing

The final test aimed to determine both construct validity and reliability. Construct validity assessed whether the test effectively differentiated between the two age groups. Given that storytelling skills improve with age, children in the older group (4.5-5 years) were expected to demonstrate greater narrative complexity. This expectation was tested by comparing average scores between the age groups. Scores were assigned based on the presence of narrative elements, with age-related growth confirming construct validity.

To measure reliability, both test-re-test reliability and inter-rater reliability were employed. The test-re-test reliability was assessed by re-administering the test to 20 randomly selected children after 20 days, and the Pearson correlation was used to evaluate score consistency. Inter-rater reliability was verified by having a second

Table 3. Questions related to story elements, level 2

Content Validity Questions About Story Elements	Story 6: Neighbor	Story 7: Kindergarten	Story 8: Chicks	Story 9: New Friend	Story 10: Visiting Grandparents
Does the story have cohesion?	Need revision	Need revision	You can rearrange the sentences in the last section and include a conclusion.	Moderate	Yes
Do the stories have a suitable introductions, continuations, and conclusions?	Yes	Yes	Yes	The casual relationships are not well expressed	No
Does the story have a main event?	Yes	Yes	Yes	The challenge is not very good	The challenge is not good; it doesn't need a solution, etc.
Does the story have an action following the main event?	Yes	Yes	Yes	No	Yes
Are there at least basic story elements (consequence, characters, events, etc.) present?	Yes	Yes	Yes	Yes	Yes
Is the vocabulary diversity in the story appropriate?	Yes	Yes, it could be improved.	Yes	Yes	Yes
Is the syntactic complexity in the story appropriate?	Yes	Yes	Yes	Yes	Yes
Are the character in the story appropriately chosen?	Yes	Yes	Yes	Yes	I think it would be better if there were no snakes, as animals are used in all the stories; it could also be about humans.
Is the sequence of the story appropriate?	Yes	Yes	It would be better if the sentences were rearranged.	No	No

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examiner independently score 10 children from each age group. Kappa statistics assessed scoring agreement between examiners, while the Cronbach α coefficient determined internal consistency across test items.

Data analysis

Data analysis was performed using SPSS software, version 16, with descriptive and inferential statistical techniques applied. Content validity ratios and indexes were calculated per the Lawshe model, and the t-test assessed construct validity by correlating total test scores with age. The Pearson correlation coefficient evaluated the test's consistency over time, and Cronbach's α confirmed internal consistency.

Results

The study involved two groups of 50 typically developing children. The first group (30 girls, 20 boys) averaged 50.48 months old with a standard deviation

of 2.032 months, while the second group (26 girls, 24 boys) averaged 57.32 months old with a standard deviation of 1.7485 months. Content validity was assessed by expert review of story elements. Experts identified the introductory phrase "Once upon a time, there was no one but the merciful God" as unnecessary in all stories, as well as select phrases in stories 2, 3, 7, and 8. All other statements were rated necessary by all experts, affirming their inclusion per the content validity ratio formula.

During the face validity phase, experts suggested changes to improve story alignment. For "Mr. Mouse in the Clouds of Thought," they advised adding a store image in the first illustration and showing cheese in the third, with a depiction of a lack of money for clarity. In "Rabbit Farm," they recommended a full fence around the farm to keep the rabbits from accessing the lettuce. For construct validity, analysis showed that children aged 4-4.5 scored an average of 31.40 on first-level stories and 16.80 on second-level stories. The 4.5-5 age

Table 4. Priority of each story based on content validity ratio

Level	Story	Priority or Necessity of Using Stories in Storytelling Test
1	Mr. Mouse's shopping	1
	The farmer's farm	1
	Playing with the ball	1
	Helping	1
	Birthday gift	0.50
2	Neighbor	1
	Kindergarten	0.50
	Chicks	1
	New friend	1
	Visiting grandparents	0.25

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group scored higher, with 38.84 and 34.04, indicating age-appropriate story levels (Table 5).

The research aimed to assess the internal consistency of story structures (initial event, middle response, plan, attempt, consequences, reaction, main characters, hero, context). Each element scored 1 if present, 0 if absent. Children's storytelling data were analyzed using SPSS, and Cronbach α was reported for each story. The internal consistency of the elements is shown in Table 6. The relatively low Cronbach α observed in this tool can be explained by developmental differences in children's narrative abilities. Research shows that children under age 7 typically do not consistently produce or recognize all narrative components, such as setting, characters, and temporal structure (Table 7). Since narrative skills emerge gradually during early childhood, the variability in children's responses reflects normal developmental patterns rather than a flaw in the instrument itself [26].

Test-re-test reliability

The Pearson correlation for test reliability showed an average correlation ($r=0.425$) in the 4-4.5-year age group across two sessions with a 20-day gap, while the 4.5-5-year group had a strong correlation ($r=0.719$). The overall correlation between sessions was 0.591, indicating average consistency.

Inter-rater reliability

The kappa coefficient for the 4-4.5-year group was 0.639, indicating good reliability, while the 4.5-5-year group had a kappa of 0.744, also good. An overall kappa of 0.712 confirms good inter-rater reliability. The paired t-test ($P=0.000$) showed a significant difference between the groups.

Table 5. Construct validity results using an independent t-test

Level	Group of Children (y)	Mean	Count	P
1	4-4.5	31.40	25	0
	4.5-5	38.84		
2	4-4.5	16.80	25	0
	4.5-5	34.04		

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Table 6. Results of internal consistency using cronbach α coefficient

Story	1	2	3	4	5	6	7	8
Cronbach α	0.346	0.329	0.222	0.327	0.326	0.283	0.534	0.158

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Table 7. The percentage of each narrative element expressed by the children (n=50)

Variables/Level of Story	%			
	1	2	Age Group (y)/Both Stories	
			4-4.5	4.5-5
Initial event	90.5	99	90	100
Internal response	96	98	59.5	100
plan	98	97	49	100
Attempt	100	95	49	98
Consequence	93	91.5	50.5	82
Reaction	4	51.5	2.5	86
Main characters	97	98	91.25	100
Hero	95	100	79	98
Context of time	19	59	12.5	60
Context of place	73	53.5	60.25	52

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Descriptive statistics

This study examined the average percentage of narrative elements present in children’s storytelling, categorized by age. Data were collected from two groups of 50 children (each retelling age-appropriate stories) and two groups of 25 children (each retelling 8 stories). The percentage of children expressing each narrative element in each story was calculated, and the mean was derived based on the number of stories (4 or 8).

The results showed that all children in group one included the narrative element of “attempt” in their stories. Following that, the elements with the highest frequencies were plan, mail character, initial response, hero, consequence, and initiating event. In this group, the narrative component with the lowest frequency was “reaction.”

In group two, all children included the narrative element of “hero.” This notion was followed by high frequencies for initiating event, initial response, main character,

plan, attempt, and consequence. The least frequently expressed element was “reaction,” although it was significantly more frequent than in group one. Furthermore, when the groups were asked to retell stories from both levels, the results showed stronger performance across all narrative elements—except for the “setting” element, where the difference was minimal.

Discussion

We designed and validated an assessment tool to evaluate storytelling ability through picture retelling in children aged 4-5 years, divided into two age groups (4.0-4.5 and 4.5-5.0 years). The instrument comprises 8 stories, each containing three sequential images. The face validity of the images and story text was established through consensus among speech-language pathologists specializing in this field and age group. After the investigations, construct validity was confirmed (P=0.000), indicating that the stories align with children’s natural development. Inter-rater reliability ($\kappa=0.712$) and test-re-test

reliability ($r=0.591$) were both good, indicating reliable performance. The Internal consistency of one of the stories was acceptable ($\alpha<0.5$), while that of the remaining stories was acceptable ($\alpha>0.5$). Since the theoretical basis of the current research is the development of children's storytelling skills with age [11], to determine the construct's validity, it is necessary to compare the two groups involved in the study. Each story was scored on 10 narrative elements, and 25 children from each group had to tell all 8 stories. The maximum score a child could get at each level was 40.

An analysis of the children's performance scores revealed distinct patterns across age groups and story levels. In the 4.0-4.5-year age group, level 1 narratives yielded a maximum score of 36 (achieved by one participant) and a minimum score of 27. For level 2 stories within this age group, scores ranged from 12 to 24, with two children attaining the maximum score. The older cohort (4.5-5.0 years) demonstrated higher performance on Level 2 stories, with scores ranging from 31 to 37. In level 1 stories, the lowest score was 31 and the highest was 40, with most children scoring between 38 and 40.

Furthermore, a greater number of children in the older age group (4.5-5.0 years) scored above 30 compared to their younger counterparts (4.0-4.5 years). As previous studies have confirmed, children under 5 years of age acquire various language elements. Still, the full and accurate use of these elements to express narrative elements is not yet fully developed [27, 28]. In other words, despite the complete microstructure in 4-year-old children, there is a significant difference between storytelling skills and macrostructure use in 4-year-old and 5-year-old children [16]. One-year-old children, as studies on the storytelling test of 6- to 7-year-old children show, can create more complex stories as they get older and use more story elements, including description. Emotional and mental states and causal relationships that are not seen in this age group [2]. In addition to the current study, another test-construction study examining syntactic comprehension in Persian-speaking children aged 4 to 10 years reports significant differences in the types and complexity of syntactic structures across age groups. The findings demonstrate that syntactic structures become progressively more complex and diverse with increasing age [29]. Overall, the results of the reviewed studies are consistent with this study and show that with increasing age, complexity is seen in story elements and structures. The independent t-test in this study also showed a significant difference between the two groups, consistent with previous studies. This result indicates that this research has a theoretical basis: Storytell-

ing skills increase with age, and as age 5 approaches, the content and overall structure of the story become more complete [11], according to the development process of story writing from the point of view of Appleby, who states that children in the age range of 4 to 4.5 years have stories with a main character and three-story grammars, including the beginning of the event, attempt or action, and consequences. In the results section, children in this age group were able to tell stories in a way that led to high scores on these elements [7].

To determine Inter-rater reliability, 10 children from each age group were randomly selected, and another examiner evaluated their verbal output. Of the verbal productions of 10 children in group 1, who were 4 to 5.4 years old, 5 children — half of the children — reanalyzed showed similar results across all 4 stories. Among the other 5 children's verbal output, two differed by one score in one story: one was one score higher, and the other was one score lower. Also, one person had a difference of 2 points between the scores of 2 stories: one story had a higher score and the other a lower one, so the total score was not different from the first order. In the first group, this statistic was 0.6, indicating good performance; that is, inter-rater reliability is in the good range.

On the other hand, in the second group, where the children were 4.5 to 5 years old, among the 10 children whose verbal output was evaluated by the second examiner, 8, ie, more than half, had results similar to those of the first analysis. Two other children also had a difference of one point in a story compared to the previous time. As expected from the scores, the kappa statistic in the second group will be higher than in the first. The kappa statistic in this group was 0.7, indicating that inter-rater reliability is in a good range.

If we look at the kappa statistic used to determine the Inter-rater reliability of the storytelling test in evaluating 20 children, we see a value of 0.7. Good performance is also taken into account in the analysis of this number. Various factors may influence this result. The first factor is that, since the raters of the two groups were swapped in the second assessment, they may have applied the mentality of the first group to the second. This finding suggests the potential for rater bias, wherein an evaluator who first assessed the older age group might subsequently expect higher performance from the younger group. Such expectations could lead to stricter scoring criteria for younger children, resulting in artificially lower scores than those in initial assessments.

The results of these statistical analyses also show that this tool is consistent with theories of children's natural development and aligns with the natural development of children's storytelling skills. Based on the construct validity results, we find that this instrument can assess what the project manager intended and distinguish between the skills of older children (4.5 to 5 years) and younger children (4 to 4.5 years).

The good inter-rater and test-re-test reliability, which yielded moderate results, suggest that the tool can be valid and provide consistent results for its users, ie, researchers conducting research designs or clinicians in clinical settings, in the future.

It can be stated that children remember the stories after 20 days, and with the details they already had in mind, and when they hear the story a second time, they can produce better, more complete outputs. As a result, they may yield different results from the first evaluation, thereby decreasing the correlation coefficient between the results. In the present study, only one story had an acceptable internal consistency. This result can also have various reasons. For example, the number of children participating in the sampling of each story was limited. We know that the larger the sample size, the greater the internal consistency.

On the other hand, a group of children included in the sample were in the kindergarten environment, were moved from their positions, and entered a separate room. This condition could create stress or cause the children to lose focus on the story, depending on the character and moral patterns of the children. As a result, children did not pay attention to the details of the stories. For example, children often had difficulty recounting attempts, consequences, and contexts of time and place that require more attention and care. Another factor that accounted for the difference in children's outcomes was the availability of a rich environment for the development of children's storytelling. Children who were more familiar with books and reading paid closer attention to story details and, as a result, recounted them more.

The most important factor affecting children's grades and, consequently, the internal consistency of stories, is the natural development of children's storytelling. As mentioned, 4- to 4.5-year-old children describe only 3 elements of a story: The initial event, the attempt, and its consequences. Children aged 4.5 to 5 years also express 4 elements of the story, including the initial event, plot, attempt, and its consequences. Hence, the correlation of these elements across these stories was often unacceptable [27].

Conclusion

To determine the face and content validity of the storytelling test in this research, the stories' images and texts were adapted with expert input. The result of this research was the preparation of 4 stories for children aged 4 to 4.5 years and 4 stories for children aged 4.5 to 5 years, each with texts and images suitable for children in these age ranges. In addition, the results of the statistical analysis indicate that this tool supports the principle that storytelling skills increase with age and that, as children approach age 5, the content and overall structure of the story change. Consistent with established developmental trajectories in children's narrative abilities, this instrument demonstrates appropriate construct validity. The findings indicate that the assessment tool successfully measures its intended constructs and effectively discriminates between the storytelling skills of older (4.5-5.0 years) and younger (4.0-4.5 years) age groups. In addition, good interrater and test-re-test reliability indicate that the test is a suitable tool and practical to use.

Ethical Considerations

Compliance with ethical guidelines

This study was approved by the Ethics Committee of [Iran University of Medical Sciences](#), Tehran, Iran (Code: IR.IUMS.REC.1401.472).

Funding

The study was financially supported by the [Iran University of Medical Sciences](#), Tehran, Iran (Grant No.: 1402-1-6-25155).

Authors' contributions

Conceptualization and study design: Reyhane Mo-hamadi and Fahime Ardeshiri; Data collection: Fahime Ardeshiri; Data analysis and interpretation: Arezoo Saf-farian and Fahime Ardeshiri; Statistical analysis: Fahime Ardeshiri; Initial draft preparation: Elnaz Chitgar; Re-view, editing, and final approval: All authors.

Conflict of interest

The authors declared no conflict of interest.

Acknowledgments

The authors thank the officials of schools in regions 1, 2, 3, 5, 6, 7, 9, 10, and 12.

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