



Research Paper:

Phonological Knowledge in 5-year-old Bilingual Turkish Qashqai-Persian Children and Fars Monolingual Children



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The authors declared no conflict of interest.

ABSTRACT

Background & Objectives: Phonological awareness is a part of metalinguistic knowledge that is significantly associated with a wide range of language skills and processes, including literacy, and reading and writing skills. The purpose of the present study was to investigate the phonological awareness skills in bilingual five years old Qashqai- Persian children with monolingual Persian speaking children.

Methods: 15 bilingual and 15 monolingual children (10 girls and 5 boys) were selected from kindergartens in Firouzabad, Fars, in February and early March 2020 and evaluated by Auditory Test of Phonological Awareness Skills (ASHA-5) for 5-6 years old Persian speaking children.

Results: The results implied that the mean total score ($P=0.733$), as well as the mean score of each component of phonological awareness skills, including syllable awareness ($P=0.328$), rhyme awareness ($P=0.625$), and phonemic awareness ($P=0.946$) in monolingual 5-year-old children, were higher than the Qashqai-Persian bilingual group, but the differences were not significant ($P \geq 0.05$).

Conclusion: The findings of the present study demonstrated that phonological awareness skills in the Persian language are higher in monolingual children than in Qashqai-Persian bilingual children, but the differences were not significant. Therefore, paying more attention and increasing knowledge about this aspect of language in bilingual children can be more effective in planning for education, evaluation, and treatment of phonological disorders in this group of children, especially in pre-school ages.

Keywords: Phonological Awareness, Bilingual Children, Monolingual Children



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↑ *What is “already known” in this topic:*

Phonological awareness skills as a part of metalinguistic knowledge is significantly associated with a wide range of language skills and processes, including literacy and reading and writing skill which bilingualism can affect it in different ways.

→ *What this article adds:*

Bilingualism may have a negative effect on phonological awareness in bilingual children compared to monolingual children.

1. Introduction

Phonological awareness skills are one of the most important categories of perceptual and expressive language that due to their direct and effective relationships with a wide range of language skills and processes are essential foundations for speech and language development. These skills are gradually learned by children from simple to complex levels during development. Phonological awareness skills have a cause-and-effect relationship with literacy skills so that the level of children’s phonological awareness skills is an important predictor for achieving reading and writing skills in school [1]. The development of phonological awareness skills depends on the structure of the language and has different levels with a hierarchical mode; its first level is “syllable awareness”, whereas the last level is “phonemic awareness” [2]. Bilingualism, whereby a person has the ability to use two different languages simultaneously, is one of the factors that affect cognitive and linguistic abilities and, consequently, phonological awareness skills [3].

One of the non-Persian languages in Iran is Turkish Qashqai, which is one of the dialects derived from Turkish that is different from other Turkish dialects, such as Azerbaijani Turkish, in terms of grammatical, phonological, and lexical structure [4]. Qashqai Turkish language is used in Fars, Isfahan, Kohgiluyeh and Boyer-Ahmad, Bushehr, Chaharmahal Bakhtiari, Kerman, and Khuzestan provinces. Considering that most of the people living in the mentioned provinces speak Persian and also Persian is the standard language in the media and education system, the study of phonological awareness in the Persian language is important in Qashqai society [5].

In this study, for the first time in Iran, the phonological skills of 5-year-old Qashqai-Persian bilingual children

were studied and compared with Persian monolingual children using the “ASHA-5” test [1]. In recent decades, studies in Iran and other countries have examined and compared phonological awareness skills in bilingual and monolingual children and reported different results [6-11]. The results of studies by Marinova-Tood [6], Xi Chen [7], and Ruth Campbel [8] showed that bilinguals performed better in most phonological awareness skills in both languages than their monolingual counterparts. Beceren did not report a significant difference between phonological awareness skills in Turkish-English bilingual and Turkish monolingual children [9]. The results of Jalalipur studies on Arabic-Persian bilingual and Persian monolingual children showed the superiority of monolinguals in phonological awareness skills [10, 11].

According to the different and contradictory results obtained from comparing phonological awareness skills in bilingual and monolingual children in different languages, and also the role and importance of phonological awareness skills in literacy and the effect of bilingualism on the development of cognitive and linguistic abilities, it seems necessary to study the effect of bilingualism on language functions and phonological awareness skills of bilingual children. Bilingualism is a positive phenomenon that can nurture and strengthen children’s linguistic potential; however, some studies have shown that bilingualism can make it difficult for children to learn, read, and write in school. Evidence shows that there is an effective and fundamental relationship between phonological awareness and literacy. Knowing this relationship in bilingual children is very important because some studies have shown that the level of phonological awareness skills predicts the level of reading skills in each language of bilingual children [12, 13]. In addition to academic skills, knowing about these skills in bilingual children can be more effective in preventing and managing speech and language disorders during the development of these children before entering school.

Thus, the aim of this study was to compare phonological awareness skills in 5-year-old bilingual Qashqai-Persian children with Persian monolingual children.

2. Materials and Methods

Participants

The participants of this study included normal 5-year-old children randomly selected from three kindergartens in Firozabad city that were bilingual or monolingual. According to parental reports and the examiner's observations, no anatomical abnormalities, neurological/metabolic disorders, mobility problems, genetic syndromes, motor-speech disorder, or delay in psychomotor developmental indices were found in children.

Procedure

The current study was approved by the Ethical Committee of Iran University of Medical Sciences (Ethics Code: IR.IUMS.REC.1398.897). After receiving permission from the University and Welfare Department of Firozabad city, three kindergartens were selected randomly. In visiting kindergartens, at first, the subject of the research was explained to the trainers, then according to the introduction of kindergarten teachers, a list of children based on the inclusion criteria in the appropriate age range was prepared. The study was performed individually on children who had no history of seizures and neurological diseases. They also had no problems with speech and hearing and were able to communicate with both languages (for bilinguals).

Auditory Test of Phonological Awareness Skills (ASHA-5)

In this study, in order to evaluate the phonological awareness skills, the auditory test of phonological awareness skills "ASHA-5" developed by Arani Kashani and Ghorbani [1] for 5-6 years old children was used. The test has syllable awareness subtests, including syllable identifica-

tion, syllable analysis, combination syllable, and omission of syllables (16 tasks); knowledge of rhyme, including rhyme identification (8 tasks); and expression of rhyming word and knowledge of phoneme, including recognition of different words in terms of the initial sound, identifying the initial phoneme, identifying the final phoneme, naming the initial phoneme, and expressing the word with the same initial phoneme. According to the instructions of the "ASHA-5" test, the test was performed in an appropriate place with no distractions, such as noise, with appropriate light and heat, and individually and verbally for each child. Each correct answer of the child was given a score of 1 and each incorrect answer was given a score of 0. Finally, the answers were recorded and the phonological awareness skills score of each child was calculated.

Statistical analysis

The results were analyzed by SPSS version 16. The Shapiro-Wilk test and Mann-Whitney U test were performed for studying the normal distribution of the data and the Independent t-test and Chi-square test were used to investigate the differences between the scores of the two groups. For all analyses, a p-value of less than or equal to 0.05 was considered significant.

3. Results

The participant's characteristics are presented in Table 1. Each group consisted of 15 children, with 15 girls and 5 boys.

Statistical analysis of the collected data showed that the mean score of total phonological awareness skills and the average score of its components, including syllable awareness, rhyme awareness, and phonology awareness, in monolingual 5 years old children were higher than the mean scores of monolingual children; however, in none of these cases, the differences were significant ($P \geq 0.05$). Table 2 represents the mean score, standard deviation, and the difference between the mean score of phono-

Table 1. Statistical characteristics

Variables	No.	Sex		Age
		B	G	
Bilingual	15	5	10	5
Monolingual	15	5	10	5
Total	30	10	20	5

Table 2. The Mean±SD of total score and components of phonological awareness skills

Variables	Language	Mean±SD	P
Syllabic awareness	Bilingual	50.67±4.546	0.328
	Monolingual	51.33±5.136	
Rhyme awareness	Bilingual	8.40±1.218	0.625
	Monolingual	8.87±1.407	
Phoneme awareness	Bilingual	63.47±12.397	0.946
	Monolingual	63.53±12.299	
Phonological awareness	Bilingual	119.53±21.583	0.733
	Monolingual	123.67±17.967	

logical awareness skills of bilingual and monolingual 5-year-old children in Firouzabad.

4. Discussion

As stated in the result section, the difference in the mean score of total phonological awareness skills ($P=0.733$) and the average score of each of its components, including syllable awareness ($P=0.328$), rhyme awareness ($P=0.625$), and phonology awareness ($P=0.946$) between monolingual children and bilingual children was not significant. However, in the monolingual group, it was higher than bilingual peers. The results of this study are consistent with the findings of Jalalipur [10, 11] in terms of higher scores of phonological awareness skills of the monolingual group compared with the bilingual group, and no significant difference was found between the two groups in syllable awareness and rhyme awareness skills. However, in Jalalipur study, in contrast to this study, the difference in the phonological awareness skills score was significant between the two groups and these skills were higher in the monolingual group than bilingual children [11].

The findings of the current study are also similar to Becceren [9] study, in which no significant difference was observed between the responses of 8-year-old bilingual Turkish-English and Turkish monolingual children. However, in other studies, including the study by Ruth Campbell [8], Chen et al. [7], and Marinova-Tood et al. [6], the score of bilingual groups was always higher than monolingual peers. It should be noted that in all of the mentioned studies, where the performance of bilingual children was better, phonological awareness skills were examined in the first language of the bilingual group, but in the present study and that conducted by Jalalipur [11]

due to the lack of a test assessing the first language of the bilingual groups, the evaluation was done in Persian, i.e. the second language of bilingual children.

5. Conclusion

In conclusion, 5-year-old Qashqai-Persian bilingual children have a weaker performance regarding the phonological awareness skills and had lower mean scores in all its components, including syllable knowledge, rhyme knowledge, and phonological knowledge than monolingual children of the same age. However, in none of these cases, these differences were significant. Due to the importance of phonological awareness skills in the development of language skills and literacy, as well as the high prevalence of bilingualism in Iran, it is important to conduct more studies and consider effective clinical and educational planning for early interventions in phonological disorders in this particular group, especially before entering the school.

Ethical Considerations

Compliance with ethical guidelines

The current study was approved by the Ethical Committee of Iran University of Medical Sciences (Ethics Code: IR.IUMS.REC.1398.897).

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Authors' contributions

All authors equally contributed in preparing this article.

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آگاهی واجشناختی در کودکان ۵ ساله دوزبانه ترک قشقایی-فارس و کودکان تک‌زبانه فارس

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چکیده

مقدمه آگاهی واجشناختی بخشی از دانش فرازبان‌شناسی است که با سطح گسترده‌ای از مهارت‌ها و پردازش‌های زبانی، از جمله سوادآموزی ارتباط معناداری دارد. بنا بر برخی مطالعات، دوزبانگی از عوامل تاثیرگذار بر رشد مهارت‌های زبان‌شناختی، از جمله مهارت‌های آگاهی واجشناختی است. هدف از این مطالعه مقایسه مهارت‌های آگاهی واجشناختی در کودکان ۵ ساله دوزبانه ترک قشقایی و تک‌زبانه فارس است.

مواد و روش‌ها در این پژوهش، ۱۵ کودک ۵ ساله دوزبانه ترک قشقایی-فارس (۱۰ دختر و ۵ پسر) و ۱۵ کودک ۵ ساله تک‌زبانه فارس (۱۰ دختر و ۵ پسر) در مهدهای کودک شهرستان فیروزآباد فارس، از بهمن تا اوایل اسفند ماه سال ۹۸ بوسیله آزمون شنیداری مهارت‌های آگاهی واجشناختی «آش-۵» ویژه کودکان ۵-۶ ساله فارسی زبان مورد مطالعه قرار گرفتند.

یافته‌ها میانگین نمره کل ($P=0/733$) و همچنین میانگین نمره هر یک از اجزای مهارت‌های آگاهی واجشناختی شامل آگاهی از هجا ($P=0/328$)، آگاهی از قافیه ($P=0/625$) و آگاهی از واج ($P=0/946$)، در کودکان ۵ ساله تک‌زبانه فارس بالاتر از گروه دو زبانه ترک قشقایی-فارس بود، اما در هیچکدام از این موارد، تفاوت‌ها معنادار نبود ($P\text{-value} \geq 0/05$).

نتیجه‌گیری نتایج نشان می‌دهند که کودکان دوزبانه ترک قشقایی-فارس در آگاهی واجشناختی و اجزای آن شامل آگاهی از هجا، قافیه و واج ضعیف‌تر از هم‌تایان تک‌زبانه فارس هستند. پیشنهاد می‌شود پژوهش‌های بیشتر و گسترده‌تری روی آگاهی واجشناختی در کودکان دوزبانه، بخصوص در سنین پیش از مدرسه انجام شود تا با دانش بیشتر راجع به این جنبه زبانی در کودکان دوزبانه، جهت آموزش، ارزیابی، و درمان اختلالات واجشناختی در این گروه از کودکان برنامه‌ریزی موثرتری صورت گیرد.

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