Letter to the Editor

Letter to the Editor Regarding "Development and Evaluation of the Persian Version of the Multiple Auditory Processing Assessment"

Mohammadreza Parhizgar

Department of Audiology, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

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* **Corresponding Author:**
Department of Audiology, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran.
mohammadrezaparhizgar@yahoo.com

In 2007, at Idaho State University, Ronald L. Schow and his colleagues developed an instruction for the evaluation of auditory processing disorder titled "Multiple Auditory Processing Assessment, Version 1.0 (MAPA) [1]. They presented its modified version in 2018. In 2016, the Persian version of this test was designed and validated for children aged 9–12 by Ebadi et al. at Iran University of Medical Sciences, and the results were published in the Auditory and Vestibular Research Journal [2]. The second version (MAPA-2) was validated by its designers in 2020 and published in the Journal of Speech, Language, and Hearing Research [3].

An earlier version of the MAPA (Beta 1) was validated in 2000 by Domitz and Schow at Idaho University [4]. Unlike the 2007 work where the MAPA had five subtests, the MAPA in this work [4] included four subtests. The third version of the Pitch Pattern Test (PPT) was used instead of the quadruple version. In this test, the stimuli were delivered monaurally, and there was no obligation in the method of reporting the patterns [4]. For the Persian version published in AVR, the test is performed binaurally and with verbal reporting [2]. In the 2000 work [4], the double version of the Dichotic Digit Test (DDT) was used, and there was no obligation in the order of repeating the heard numbers, while in the Persian version, the triple version of DDT was used with an emphasis on the precedence of repeating the numbers heard from the right ear [2]. Therefore, the Persian version of MAPA is different from its original version.

For the MAPA-2, there is also a difference between the original and Persian versions. for the DDT, it was clearly stated in the original version that the repetition of numbers can take place in any order and pattern, while in the Persian version, it was clearly stated that the numbers heard from the right ear should be repeated first [3]. It is necessary to mention that the order of repeating in the DDT can affect the test results; the order of repeating and choosing an effective

and useful method is part of auditory processing [5]. The developers of the MAPA-2 did not mention the method of report in the PPT [3], which is inconsistent with the Persian version, where the authors clearly indicated a verbal method. Please note that the reporting method in the PPT test can affect the test results [6-8]. The verbal expression increases the load of language processing; measuring auditory processing (verbalization) leads to the results mostly based on language processing [9]. Another important point is the way the tones are presented in the PPT test. In the Persian version, the tones were presented "binaurally," while in the MAPA-2, there was no report of the presentation method. Pitch processing is different in the two hemispheres of the brain [10-12]. Furthermore, for the diagnosis and differentiation of auditory processing disorders, we need to detect the involved ear in the test. The Persian version need to be modified.

References

1. Schow RL, Seikel A, Brockett JE, Whitaker MM. Multiple auditory processing assessment (MAPA) Test Manual, Version 1.0. St. Louis: AUDITEC; 2007.

2. Ebadi E, Jarollahi F, Tahaei AA, Ahadi M, Hosseini AF. Development and evaluation of the Persian version of the multiple auditory processing assessment. Aud Vestib Res. 2016;25(2):75-81.

3. Schow RL, Whitaker MM, Seikel JA, Brockett JE, Domitz Vieira DM. Validity of the Multiple Auditory Processing Assessment-2: A Test of Auditory Processing Disorder. Lang Speech Hear Serv Sch. 2020;51(4):993-1006. [DOI:10.1044/2020_LSHSS-20-00001]

4. Domitz DM, Schow RL. A new CAPD battery--multiple auditory processing assessment: factor analysis and comparisons with SCAN. Am J Audiol. 2000;9(2):101-11. [DOI:10.1044/1059-0889(2000/012)]

5. Doosti A, Lotfi Y, Parhizgar M, Absalan A, Bakhshi E, Tavangar S. The Role Of Stimulus Retrieval Strategy On Dichotic Digit Test Success In 8-12 Years Old Children. J Pharm Negat Results. 2022:13(7):8063-70. [DOI:10.47750/pnr.2022.13.S07.976]

6. Balen SA, Moore DR, Sameshima K. Pitch and Duration Pattern Sequence Tests in 7- to 11-Year-Old Children: Results Depend on Response Mode. J Am Acad Audiol. 2019;30(1):6-15. [DOI:10.3766/jaaa.16132]

7. Puschmann S, Uppenkamp S, Kollmeier B, Thiel CM. Dichotic pitch activates pitch processing centre in Heschl's gyrus. Neuroimage. 2010;49(2):1641-9. [DOI:10.1016/j.neuroimage.2009.09.045]

8. Lotfi Y, Parhizgar M, Doosti A, Bakhshi E. Evaluating Norm Indicators of Pitch Pattern Test Using the Whispering Method in 8-12-Year-Old Right-Handed And Persian-Speaking Children. J Organ Behav Res. 2023;8(S):1-6.

9. Lotfi Y, Parhizgar M, Doosti A, Enayatollah Bakhshi E. Investigating the Relationship between Pitch Discrimination and Consonant-Vowel Discrimination in the Presence of Noise in Persian-Speaking Children Aged 8 To 12. J Organ Behav Res. 2023;8(S):1-12.

10. Gu F, Zhang C, Hu A, Zhao G. Left hemisphere lateralization for lexical and acoustic pitch processing in Cantonese speakers as revealed by mismatch negativity. Neuroimage. 2013;83:637-45. [DOI:10.1016/j.neuroimage.2013.02.080]

11. Abramson AS. Static and dynamic acoustic cues in distinctive tones. Lang Speech. 1978;21(4):319-25. [DOI:10.1177/002383097802100406]

12. Lotfi Y, Parhizgar M, Doosti A, Bakhshi E. Investigating the pitch discrimination structure for low and high frequency notes in Persian-speaking children. Clin Cancer Investig J. 2022;11(1S):1-9.