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AGE RELATED HEARING LOSS AND COGNITION

AUDITORY PROCESSING DISORDER IN GREEK ELDERLY POPULATION

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ABSTRACT

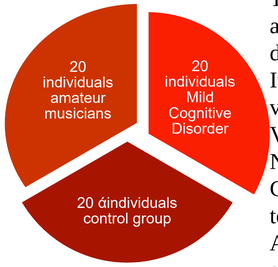
The study examined auditory processing disorder in Greek elderly individuals, focusing on amateur musicians, mild cognitive disorder, and a control group. The participants were aged 65 years and older. Hearing sensitivity was assessed using a pure tone audiogram and auditory processing was evaluated. The dementia group performed worse in all auditory processing tests except for the speech in noise test. Pitch pattern recognition was poorer in the dementia group for both ears. Amateur musicians and healthy controls had better results. The dementia group had significantly lower duration pattern sequence scores. Amateur musicians performed better on the RGDT test than healthy controls, while the dementia group was only able to detect a median gap of 58.75ms. Participation ability on the GIN test was considerably lower in the dementia group. The study concluded that dementia group showed significantly worse performance in all auditory processing tests except for the speech in noise one.

GREEK ELDERLY INDIVIDUALS 65 YEARS OLD AND OVER

AIM

The purpose of the study is to evaluate auditory processing in Greek elderly individuals employing an amateur musicians' group, a cognitive decline group and control one.

MATERIALS AND METHODS



The intensity of the auditory processing tests is adjusted to 50 dBSL + MO of the audiogram in dB.
It is checked whether the three groups show variation in the threshold (dB) across frequency.
Verbal stimuli (SINB and DD)
Non-verbal stimuli (DPS, GIN, PPS, and RGDT)
Comparison of performance in auditory processing tests among the three groups.
Age, gender, and chronic conditions are taken into account

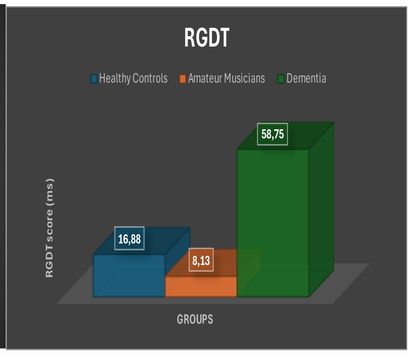
AUDIOGRAM → AUDITORY PROCESSING TESTS → STATISTICAL ANALYSIS

RESUILTS

Peripheral hearing was not different across the three groups. No significant differences were detected between study groups in SNR scores of neither ear (p>.05). The dementia group had a poorer PPS performance for both ears. Amateur musicians and healthy controls had superior results. The dementia group had significantly lower DPS scores for both ears. Amateur musicians performed slightly better than healthy controls in the RGDT test, but the dementia group only detected a gap of 58.21ms. The GIN test showed a significantly lower ability for the demented group to participate.

	PPS	DPS	DD
Healthy Controls	100,00	95,00	95,00
Amateur Musicians	100,00	90,00	90,00
Dementia	80,00	65,00	89,00

	PPS	DPS	DD
Healthy Controls	100,00	95,00	100,00
Amateur Musicians	100,00	95,00	92,50
Dementia	88,25	68,50	87,50



CONCLUSION

Dementia group showed a significant worse performance in all auditory processing tests except for the speech in noise one. Elderly individuals involved in music could not be differentiated form those not involved

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