

A43

Data analysis for the validation of the autism-spectrum quotient: a pilot study in a typical Greek population

Nikoleta Alexopoulou¹, Evangelia I. Kosma^{2,3}, Spyridon K. Chronopoulos^{4,5}, Dionysios Tafiadis⁶
¹Department of Humanities and Social Sciences, University of Strathclyde, Glasgow, United Kingdom;
²Faculty of Medicine, School of Health Sciences, University of Thessaly, Biopolis, Larissa, Greece;
³Psychologist, Private Practice, Mihail Aggelou 18, Ioannina, Greece; ⁴Department of Informatics and
Telecommunications Engineering, University of Western Macedonia, Kozani, Greece; ⁵Department of Computer
Engineering, Technological Educational Institute of Epirus, Arta, Greece; ⁶Department of Speech &
Language Therapy, Technological Educational Institute of Epirus, Ioannina, Greece

Correspondence: Dionysios Tafiadis - d.tafiadis@ioa.teiep.gr; tafiadis@gmail.com

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Background: Individuals, in the spectrum of autism, present difficulties in “empathising” and show higher results in “systemising” [1]. In general, women empathise more than men and in turn males systemize more than females [1–7]. Autism-Spectrum Quotient (AQ) is a 50-item self-administered questionnaire which was created to measure the level of autistic traits to adults with normal intelligence [8]. This questionnaire is consisted of questions based on measuring the main impairments confronted by individuals with ASD. The questions are also based on the ability of males and females to empathise and systemize. The aim of this study was the translation of the AQ questionnaire in Greek language and its validation in Greek non-professional population-typically developed parents.

Materials and methods: The AQ questionnaire was translated in Greek language and administered to a population of 325 typically developed adults. All of them spoke Greek as their first language (150 men and 175 women). Their age varied from 19 years old to 75+ years.

Results: All the participants completed the AQ questionnaire. The reliability of the AQ questionnaire was satisfactory in its Greek translation with Cronbach Alpha being equal to 0.707. The internal coherence was also strong. The analysis of the results showed that differences in the answers existed between males and females to specific questions but not in the total score. It is notable that males present a higher score to their answers than women do. Also, analysis showed remarkable differences to the answers in specific questions between the age groups as well as to the total score.

Conclusions: AQ is a questionnaire which can be used as a tool for the detection of autism spectrum disorders. It can provide important information about the social interaction and communication deficits faced by an individual with an average IQ level. The Greek translation of the questionnaire was rated as satisfactory. Nevertheless, further research would be useful for the validation of the AQ in Greek language and for the detection of the age and gender differences from the answers.

References

1. Baron-Cohen S. The extreme male brain theory of autism. *Trends on Cognitive Science* 2002; 6(6): 248-254.
2. Baron-Cohen S, Wheelwright S, Skinner R, Martin J, Clubley E. The autismspectrum quotient (AQ): Evidence from asperger syndrome/high-functioning autism, males and females, scientists and mathematicians *Journal of Autism and Developmental Disorders*. 2001; 31(1): 5-17.
3. Tafiadis D, Kosma E I, Chronopoulos S K et al. Voice Handicap Index and Interpretation of the Cutoff Points Using Receiver Operating Characteristic Curve as Screening for Young Adult Female Smokers. *Journal of Voice*. 2018;32(1):64-69. <https://doi.org/10.1016/j.jvoice.2017.03.009>
4. Tafiadis D, Chronopoulos S K, Kosma E I et al. Using Receiver Operating Characteristic Curve to Define the Cutoff Points of Voice Handicap Index Applied to Young Adult Male Smokers. *Journal of Voice*. 2018;32(4):443-448. <https://doi.org/10.1016/j.jvoice.2017.06.007>
5. Tafiadis D, Helidoni M, Chronopoulos S et al. Preliminary Receiver Operating Characteristic Analysis on Voice Handicap Index of Laryngeal Inflammation in Greek Patients. *International Journal of Otolaryngology and Head & Neck Surgery*. 2018;07(03):115-131. <https://doi.org/10.4236/ijohns.2018.73014>
6. Tafiadis D, Kosma E, Chronopoulos S, Voniati L, Ziavra N. A Preliminary Receiver Operating Characteristic Analysis on Voice Handicap Index Results of the Greek Voice-Disordered Patients. *International Journal of Otolaryngology and Head & Neck Surgery*. 2018;07(03):98-114. <https://doi.org/10.4236/ijohns.2018.73013>
7. Chronopoulos S, Kosma E, Tafiadis D et al. Reduced Ecological Footprints of Modern Facilities Introducing the Implementation of Advanced Wireless Technologies, and Human Resources' Benefits. *Communications and Network*. 2018;10(01):11-29. <https://doi.org/10.4236/cn.2018.101002>
8. Baron-Cohen S, R A Hoekstra, Knickmeyer R, Wheelwright S. The autismspectrum quotient (AQ) - adolescent version. *Journal of Autism and Developmental Disorders*. 2006; 36(3): 343.

Ethics Approval: The study was approved by the Ethical Committee of Department of Speech Language Therapy (School of Health and Welfare Professions) TEI of Epirus.

Consent to publish: Informed consent to publish has been obtained from each participant.