

# Weighting of the Empathy Questionnaire Toronto Empathy Questionnaire (TEQ) on the Greek Population

Iatrou G<sup>1\*</sup>, Kotrotsiou E<sup>2</sup>, Gourgoulianis K<sup>3</sup> and Gouva Ms<sup>4</sup>

<sup>1</sup>University of Thessaly, Medicine, Larissa, Greece

<sup>2</sup>University of Applied Sciences of Thessaly, Nursing-Postgraduate Program in Mental Health-Research Laboratory of Care, Larissa, Greece

<sup>3</sup>University of Thessaly, Medicine, Larissa, Greece

<sup>4</sup>University of Applied Sciences of Epirus, Nursing-Research Laboratory Psychology of Patients Families and Health Professionals, Ioannina, Greece

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**\*Corresponding author:** Iatrou G, University of Thessaly, Medicine, Larissa, Greece

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## Abstract

Empathy is the ability of the therapist to place himself in the position of the treated and to face life and the world through the latter's eyes. According to Coutu (1951), «empathy is the process by which a person momentarily pretends to himself that he is another person...in order that he may get an insight into the other person's probable behaviour in a given situation». Respectively, Goldstein, Michaels (1985), consider that with empathy a person is sensitized to a maximum extent regarding the emotional state of the other and so can go deeper into the individual processes of emotional resonance, cognitive analysis and accurate feedback. It has been found that empathy is an important factor for the development of constructive therapeutic relationship. Goleman (1995) describes empathy as the ability to recognize and understand the desires, goals and views around you. It is a therapeutic tool having its roots in the work of Rogers CR [1], who appointed empathy as the core of person-centred approach to counseling. It is mainly a cognitive characteristic which includes the understanding of the individual's experiences, opinions and perceptions, combining them with the ability for communication and intention to provide assistance. The aim of this study was the weighting of the empathy questionnaire Toronto Empathy Questionnaire on the greek population.

**Keywords:** Toronto empathy questionnaire; Empathy; Weighting; Reliability; Correlation

## Aim

The aim of this study was the weighting of the empathy questionnaire Toronto Empathy Questionnaire on the greek population.

## Method

The questionnaire used as a research tool to conduct this study, was completed by a general sample of 73 individuals. It is consisted of 16 items that are classified into 6 different axes. In particular, the 1st axis expresses the emotional state of others (2,7,10,12,15), the 2nd axis expresses altruism (5,14,16), the 3rd axis refers to the compassionate physiological arousal (3,6, 9,11), the 4th axis measures the apperception of one's emotional state (1,4), the 5th axis measures the emotional state of others (8), and the 6th axis measures the behavior frequency (13). The said questionnaire was created in 2009 by Spreng RN et al. [2] and as it has already been translated into the Greek language, it is widely used in greek researches. The main subject of the research's study is the weighting of the questionnaire based on the Jefferson scale.

**Reliability**

Reliability is a particularly important feature of any research tool. For any tool to be considered reliable, the results must end up being the same no matter how many times the measurement procedure is repeated. The main axes of reliability are stability, that is, the ability of a scale to lead to the same findings regardless of the number of process iterations. Homogeneity, on the other hand, is a trait that expresses the ability of a scale’s items to measure the same trait, as well as the concept of equivalence of the research tool, that is, the ability to lead the researcher to the same results when more than one research tools are being used. In order to estimate the internal consistency of the scale, the researcher uses the Cronbach’s alpha index, by which they evaluate the homogeneity of the tool. The higher the value of alpha, the more reliable a research tool can be considered [3].

**Validity**

The validity of the research tools reflects the accuracy of the quantities under study. In each study it is necessary to ensure both validity and reliability as, in many cases, a research tool may be reliable yet does not meet the requirements of validity. On the other hand, when a tool is proved to be valid, it is always reliable. There are three different types of content-related validity, the criterion that illustrates the relationship between performance on a scale, behavior of the subject and the structural validity associated with the theoretical structure of the tool.

**Factors analysis**

The term factor analysis refers to the evaluation of structural validity, which provides the researcher with the necessary information so to know on which extent the variable or the group of variables are calculating the same dimension of a concept. Its aim is, through this process, to successfully investigate the factor analysis by assessing the way of managing an indexes’ category for them to refer to the same notion. This method essentially explains how the correspondences can be categorized in a way to give meaning to the connection between them.

**Research sample**

The questionnaire was distributed and weighted to a total of

**Table 5:** Jefferson’s correlation-TEQ.

		Axis 1 (2,7,10,12,15) Emotional State of Others	Axis 2 (5,14,16) Altruism	Axis 3 (3,6,9,11) Compassionate Physiological Arousal	Axis 4 (1,4) Apperception of One’s Emotional State	Axis 5 (8) Emotionall State of Others	Axis 6 (13) Behavior Frequency
Jefferson’s Scale	P	,478**	,725**	,339**	,204	,324**	,295*
	sig	,000	,000	,003	,084	,005	,011
	N	73	73	73	73	73	73

**Discussion-Conclusion**

The aim of this study is to scale the TEQ questionnaire which testes empathy. To scale the questionnaire, the researcher took measures to ensure its reliability, validity and general structure. To ensure the research tool’s reliability, an internal consistency test

was performed to check the questionnaire’s data one by one using the Cronbach’s alpha index. The scaling of the TEQ questionnaire was based on another empathy-measuring research tool, the Jefferson Questionnaire. The results of the research indicated that the subscales “Axis 1-Emotional state of others”, “Axis 2-Altruism”, “Axis 3-Compassionate physiological arousal”, “Axis 4-Apperception

**Results**

- A. AXIS 1- Emotional state of others (Table1)
- B. AXIS 2- Altruism (Table 2)
- C. AXIS 3-Compassionate physiological arousal (Table 3)
- D. AXIS 4-Apperception of one’s emotional state (Table 4 & 5)

**Table 1:** Internal consistency of items 2REV,7REV,10REV, 12REV,15REV.

Cronbach’s Alpha	N of Items
,681	5

**Table 2:** Internal consistency of items 5,14REV,16.

Cronbach’s Alpha	N of Items
,679	3

**Table 3:** Internal consistency of items 3, 6, 9, 11REV.

Cronbach’s Alpha	N of Items
,642	4

**Table 4:** Internal consistency of items 1, 4.

Cronbach’s Alpha	N of Items
,769	2

was performed to check the questionnaire’s data one by one using the Cronbach’s alpha index. The scaling of the TEQ questionnaire was based on another empathy-measuring research tool, the Jefferson Questionnaire. The results of the research indicated that the subscales “Axis 1-Emotional state of others”, “Axis 2-Altruism”, “Axis 3-Compassionate physiological arousal”, “Axis 4-Apperception

of one's emotional state", "Axis 5-Emotional state of others" and "Axis 6- Behavior frequency" measure different factors and are, indeed, reliable. The axes "Axis 5- Emotional state of others" and "Axis 6-Behavior frequency" were not tested for their internal consistency as they are consisted of one item only. By analyzing the data, the results of the comparison between the two tools showed that there is a correlation of Jefferson's scale with the dimensions of "Emotional state of others", "Altruism", "Compassionate physiological arousal", "Emotional state of others" and "Behavior frequency".

Given everything mentioned above, it seems that the TEQ research tool is a reliable tool for calculating the empathy of population.

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