220 PSYCHIATRIKI 29 (3), 2018

## Research article Ερευνητική εργασία

# Validation of the greek version of Young Schema Questionnaire-Short Form 3: Internal consistency reliability and validity

I.A. Malogiannis,<sup>1,2</sup> Aik. Aggeli,<sup>2,3</sup> D. Garoni,<sup>1,2</sup> Ch. Tzavara,<sup>4</sup> I. Michopoulos,<sup>5</sup> A. Pehlivanidis,<sup>1</sup> A. Kalantzi-Azizi,<sup>3</sup> G.N. Papadimitriou<sup>1</sup>

<sup>1</sup>1st Department of Psychiatry, Eginition Hospital, School of Medicine, University of Athens, Athens,

<sup>2</sup>Greek Society of Schema Therapy, Athens,

<sup>3</sup>Department of Psychology, University of Athens, Athens,

<sup>4</sup>Centre for Health Services Research, Department of Hygiene, Epidemiology and Medical Statistics,

School of Medicine, University of Athens, Athens,

<sup>5</sup>2nd Department of Psychiatry, Attikon General Hospital, School of Medicine, University of Athens, Athens, Greece

Psychiatriki 2018, 29:220-230

chema therapy (ST) is an integrative therapy, which combines elements of cognitive behavior therapy, attachment theory, object relations theory and emotional-focused models. Schema therapy is an effective treatment for patients with personality disorders and other chronic psychological disorders. Early Maladaptive Schemas (EMSs) are a main concept in schema theory referring to self-defeating, core themes or patterns. They develop as a result of traumatic or toxic childhood experiences and the frustration of the core emotional needs in childhood. To date 18 EMSs have been identified and grouped into five higher order structures, known as domains. For the evaluation of the EMSs, Young developed a self-report inventory, the Young Schema Questionnaire (YSQ). There are two forms of the YSQ, the Young Schema Questionnaire – Long Form 3 (YSQ-L3) a 232-item inventory and the Young Schema Questionnaire - Short form 3 (YSQ-S3), a 90-item inventory, which is a subset of the Long form. The aim of this study was to validate the Greek Version of the YSQ-S3. A non-clinical sample of 1,236 undergraduate students completed the YSQ-S3 and 124 patients with Axis-I, Axis II or comorbid diagnosis, completed the YSQ-L3. Moreover, both samples completed the second part of the Adults Self Report (ASR). Internal consistency reliability, discriminative, convergent and predictive validity were examined. The internal consistency reliability of the schema factors was satisfactory with a Cronbach's alpha coefficient of 0.70 or above, for all factors in both student's and clinical sample. The effect sizes were high for most of the scales, regarding the differences between clinical and non-clinical sample. Emotional Deprivation, Vulnerability to harm or Illness, Subjugation, Social Isolation/Alienation and Defectiveness/Shame had the highest effect sizes in the clinical sample and in the non-clinical sample according to whether they had ever visited a mental health specialist. This may suggest that these EMSs are more sensitive and useful markers of psychological problems. In addition, patients with Axis II pathology scored significantly higher on Emotional Deprivation, Abandonment, Mistrust/Abuse, Social Isolation/Alienation compared to patients with only Axis I pathology. This finding is consistent with Schema theory, as these EMSs are associated with earlier in life traumatic experiences and insecure attachment and lie in the core of personality pathology. YSQ-S3 factors were significantly correlated with all ASR dimension and linear regression analysis showed that certain EMSs could predict Depressive and Anxiety problems. In total, the greek version of the YSQ-S3 showed good reliability and validity.

**Key words**: Early Maladaptive Schema, validity, internal consistency reliability, Young Schema Questionnaire.

#### Introduction

Schema therapy (ST) is an integrative therapy, which combines elements of cognitive behavior therapy, attachment theory, object relations theory and emotional-focused models. Schema therapy is an effective treatment for patients with personality disorders and other chronic psychological disorders.<sup>2-6</sup> Young<sup>7</sup> integrated elements from attachment theory<sup>8</sup> and elaborated the concept of schema, shifting from the organizational and information processing function of schema,9 to a definition that emphasizes the developmental origin and the early onset of schemas. He proposed that Early Maladaptive Schemas (EMSs) are broad, pervasive, trait-like, cognitive and emotional self-defeating patterns, regarding oneself and one's personality.<sup>1,10</sup> EMSs develop, as a result of the interaction between the individual's temperament and ongoing toxic childhood experiences, rather than a single traumatic event.<sup>1,10</sup> The frustration of the core emotional needs (secure attachment, autonomy, freedom to express needs and emotions, spontaneity and play, realistic limits and self-control) results to EMSs development.<sup>10</sup> To date Young et al.<sup>1</sup> have identified 18 EMSs grouped into five higher order structures known as domains.

Disconnection and Rejection: Abandonment/Instability, Mistrust/Abuse, Emotional Deprivation, Defectiveness/Shame, Social Isolation/Alienation.

Impaired Autonomy and Performance: Dependence/ Incompetence, Vulnerability to Harm or Illness, Enmeshment/Undeveloped Self, Failure. *Impaired limits*: Entitlement/Grandiosity, Insufficient Self-Control/Self-Discipline.

Other-Directedness: Subjugation, Self-Sacrifice, Approval-Seeking.

*Over-Vigilance and Inhibition*: Negativity/Pessimism, Emotional Inhibition, Unrelenting Standards/Hypercriticalness, Punitiveness.

For the evaluation of the EMSs, Young developed a self-report inventory, the Young Schema Questionnaire (YSQ).

Initially Young<sup>10</sup> proposed 16 EMS organized in five domains. Exploratory Factor Analyses (EFA) revealed 12 of the 16 factors (EMS), in a student sample, 15 of the 16 factors in a sample of 187 patients and three domains.<sup>11</sup>

The study was replicated in a larger clinical sample<sup>12</sup> of 433 patients and revealed four domains: disconnection, impaired autonomy, impaired limits and over-control.

In order to improve the efficiency of the YSQ, Young<sup>13</sup> developed a short version (Young Schema Questionnaire-Short Form, YSQ-S) comprised of a subset of 75 items of the original YSQ. Each YSQ-S factor was constructed from the five items with highest loadings on each of the 15 factors emerged in Schmidt et al<sup>11</sup> study; YSQ-L and YSQ-S were significantly correlated.<sup>14,15</sup>

Several other studies confirmed the factors proposed by Young in different languages and populations. 16-19

Young et al<sup>1</sup> proposed three more EMSs (Approval Seeking, Negativity/Pessimism, Punitiveness), which

resulted to the proposed 18 EMSs grouped in the five domains as described today. The revised Young Schema Questionnaire-Long Form 3 (YSQ-L3)<sup>20</sup> consists of 232 items and the Young Schema Questionnaire-Short Form 3, (YSQ-S3),<sup>21</sup> consists of 90 items.

The YSQ-L exhibits good internal consistency (average alpha=0.90)<sup>11</sup> with no discernible differences in the pattern of alpha scores between the YSQ-L and the YSQ-S.<sup>14,15,22</sup> Alpha scores for the YSQ-S were also high for the different versions and in different populations.<sup>18,23–25</sup> YSQ also revealed adequate to high temporal stability.<sup>26</sup>

The YSQ has shown good convergent and predictive validity. EMSs have been correlated with several measures of depression and anxiety<sup>11,18,19,24,25,27–29</sup> and personality disorders.<sup>23,29–33</sup>

The discriminative power of the YSQ was good between patients with Axis-II and Axis-I diagnosis,<sup>12</sup> between female patients with eating disorders and a non-clinical group,<sup>15,34–36</sup> between depressed patients and healthy controls<sup>37</sup> and between patients with mood or anxiety disorders comorbid with Axis-II diagnoses and a student sample.<sup>22</sup>

The aim of our study was to validate the greek version of the YSQ-S3. In this paper we investigate the internal consistency and the validity of YSQ-S3 in a clinical and a large student sample. The investigation of the factor structure (first order and possible higher order/domains) in the same sample, is also part of the validation and the related manuscript is under preparation.<sup>38</sup>

### Material and method

#### **Participants**

The non-clinical sample consisted of 1.236 undergraduate students (34.5% men and 65.5% women) with mean age 25.7 years (SD=2.7 years). Most of the participants lived with their parents (55.2%). Regarding their marital status 95.9% of them were single.

The clinical sample consisted of 124 patients (34,5% men and 65,5% women) with mean age 40.8 years (SD=12.0 years) from the Outpatient Units of two University Psychiatric Hospitals. From

these patients 68 (54,8%) presented only Axis-I diagnosis, 18 (14,5%) presented only Axis-II diagnosis and 38 (30,7%) co-morbid Axis-I and Axis-II diagnosis.

#### Measurements

Young Schema Questionnaire-Short Form 3/ YSQ-S3:<sup>21</sup> The non-clinical sample completed the greek version of the YSQ-S3. This is a 90-item self-report measure to be rated by a 6-point Likert subscale ranging from "completely untrue" to "describes me perfectly".

Young Schema Questionnaire-Long Form 3/YSQ-L3<sup>20</sup>

The clinical sample completed the greek version of the YSQ-L3. This is a 232-item self-report measure to be rated by the same 6-point Likert subscale. The subsets of the 90 items, that construct the YSQ-S3, were extracted to obtain the YSQ-S scores, in order to conduct the discriminant analysis.

Translation procedure of the YSQ-L3 and YSQ-S3

Upon agreement, two bilingual professionals, speakers of Greek (i.e. target) and English (i.e. source), undertook independent forward translations into the target language. A reconciled version of the instrument was developed and a professional bilingual translator performed a backward translation of this reconciled version back into the original language. The back-translation and the original one, were compared and any discrepancies between them led to changes to the reconciled translation in the greek language. An expert committee reviewed this latest version and gave their feedback. At the next stage, the questionnaire was administered to a small group of patients who volunteered to take part in the cognitive debriefing phase, in order to assess clarity and comprehension of the questionnaire items. After this feedback, the final greek version was produced.

Adults Self Report/ASR<sup>39</sup>

The ASR is a self-report instrument that consists of two parts. The first part assesses psychosocial adaptive functioning. The second part, which we used in this study, consists of 123 items. The questionnaire provides scores for the following syndrome scales: anxious/depressed, withdrawn, somatic complaints, thought problems, attention problems, aggressive behavior, rule-breaking behavior, and intrusive behavior. Also, provides scores for the following DSM-oriented scales: depressive problems, anxiety problems, somatic problems, avoidant personality problems, attention deficit/ hyperactivity problems (inattention and hyperactivity/impulsivity subscales), and antisocial personality problems. Items are rated on a 3-point scale: 0-Not True, 1-Somewhat or Sometimes True, 2-Very True or Often True. The instrument also includes two scales of internalizing and externalizing problems. The examination of the psychometric properties of the ASR in a Greek normative sample, supported the factor structure of the original model and justified the internal consistency of the total scale and sub-scales.<sup>40</sup>

#### Statistical analysis

Internal consistency reliability was determined by calculation of the Cronbach's  $\alpha$  coefficient. Scales with reliabilities equal to or greater than 0.70, were considered acceptable.

Discriminative validity was examined, with the use of the known groups validation design (Devellis 2003).<sup>41</sup> Student's t-tests were conducted, in order to explore differences on YSQ-S3 scales between clinical and non-clinical samples and also between participants from the non-clinical sample, according to whether they had ever visited a mental health specialist. To give an indication of the aforementioned differences, effect sizes were also reported. Effect sizes of 0.2–0.5 are considered small, 0.51–0.81 moderate and over 0.8 is considered large.

Convergent validity was examined with the correlation coefficients (Pearson's r) between YSQ-S3 factors and both ASR and DSM-oriented ASR scales. Correlation coefficient between 0.1 and 0.3 are considered low, between 0.31 and 0.5 moderate and over 0.5 high.

To further examine predictive validity, multiple linear regression analysis was conducted with de-

pendent the ASR variables presented Depressive and Anxiety problems, according to DSM-IV, and independent variables the EMSs, in order to investigate which of the EMSs had predictive ability for depression and anxiety. P values reported are two-tailed. Statistical significant level was set at .05 and analysis was conducted using SPSS 18.0 and AMOS (SPSS, Chicago, IL, USA) Statistical Software.

#### **Results**

#### Internal consistency reliability

Cronbach's a of the scales of YSQ-S3 for both samples are shown in table 1. All the scales exceeded the minimum reliability standard of 0.70 in both study samples. Cronbach's alpha ranged from 0.71 (Punitiveness) to 0.83 (Failure, Emotional Inhibition) for the sample of students and from 0.86 (Entitlement/Grandiosity) to 0.93 (Emotional deprivation, Defectiveness/Shame, Subjugation) for the clinical sample.

#### Discriminative validity

Mean scores of the scales of YSO-S3 for both samples are shown in table 1. Mean scores of the scales of YSQ-S3 for the non-clinical sample according to the visit to a mental health specialist are shown in table 2. Higher scores in all the YSQ factors except for Unrelenting Standards/ Hypercriticalness Approval-Seeking/Recognition-Seeking and Entitlement were found in the clinical sample, showing good discriminative ability. Effect sizes were high for most of the scales. The highest effect sizes were found for Emotional Deprivation, Vulnerability to Harm or Illness, Subjugation, Social Isolation/Alienation and Defectiveness/ Shame. The same EMSs had the highest effect sizes in the nonclinical sample according to the question whether they had ever visited a specialist. When differences between patients with only Axis I pathology and patients with Axis II pathology were investigated it was found significantly greater scores on Emotional Deprivation (p<0.001), Abandonment (p=0.025), Mistrust/Abuse (p=0.025), Social Isolation/ Alienation (p<0.001) and total YSQ score (p=0.045) for patients with Axis II pathology.

Table 1. EMS Mean scores and Cronbach's a of students and clinical samples with effect sizes.

	Student's sample		Clinical sample			
	Mean (SD)	Cronbach's a	Mean (SD)	Cronbach's a	р	Effect size
Emotional deprivation	2.0 (1.0)	0.79	3.2 (1.4)	0.93	<0.001	1.22
Abandonment	2.4 (0.9)	0.76	3.1 (1.3)	0.92	< 0.001	0.75
Mistrust/Abuse	2.3 (0.9)	0.75	3.1 (1.0)	0.91	< 0.001	0.91
Social isolation/Alienation	1.9 (0.9)	0.76	3 (1.5)	0.92	< 0.001	1.13
Defectiveness/Shame	1.6 (0.7)	0.79	2.4 (1.1)	0.93	< 0.001	1.10
Failure	1.7 (0.7)	0.83	2.5 (1.3)	0.91	< 0.001	1.07
Dependence/Incompetence	1.8 (0.7)	0.73	2.6 (1.2)	0.91	< 0.001	1.08
Vulnerability to harm or illness	1.8 (0.8)	0.73	2.9 (1.2)	0.92	< 0.001	1.20
Enmeshment/Undeveloped self	1.9 (0.8)	0.73	2.6 (1.2)	0.91	< 0.001	0.83
Subjugation	1.9 (0.8)	0.75	3 (1.3)	0.93	< 0.001	1.20
Self-sacrifice	3.1 (1.0)	0.77	3.4 (1.2)	0.92	< 0.001	0.37
Emotional inhibition	2.3 (1.0)	0.83	3 (1.2)	0.89	< 0.001	0.63
Unrelenting standards/ Hypercriticalness	3.1 (0.9)	0.76	3.2 (1.0)	0.90	0.804	0.02
Entitlement/Grandiosity	2.8 (0.9)	0.74	2.6 (0.9)	0.86	0.049	0.19
Insufficient Self-Control/Self-discipline	2.5 (0.9)	0.78	2.9 (1.2)	0.92	<0.001	0.42
Approval-Seeking/Recognition- Seeking	2.8 (1.0)	0.76	2.9 (1.0)	0.91	0.073	0.17
Negativity/Pessimism	2.3 (0.9)	0.77	3.2 (1.2)	0.92	< 0.001	0.90
Punitiveness	2.4 (0.8)	0.71	3.1 (1.0)	0.90	< 0.001	0.76

### Convergent validity and Predictive ability

YSQ-S3 factors were significantly correlated with almost all ASR and DSM-oriented ASR dimensions indicating good convergent validity. In table 3 are shown the moderate and high correlation coefficients between YSQ-S3 factors and Depressive Problems, Anxiety Problems, Avoidant Personality Problems, Antisocial Personality Problems and Impulsivity scales of the DSM-IV oriented ASR dimensions. Abandonment, Dependence/Incompetence, Subjugation, Negativity/Pessimism were highly correlated (0.5–0.53) with Depressive Problems. Abandonment, Vulnerability to Harm or Illness and Negativity/Pessimism showed the stronger, although moderate (0.47–0.49) cor-

relation with Anxiety Problems. Social Isolation, Defectiveness/Shame and Subjugation were highly correlated with Avoidant Personality Problems. Insufficient Self-Control/Self-Discipline showed the stronger, although moderate correlation with Antisocial Personality Problems (0.36) and the Impulsivity Subscale (0.40).

When multiple linear regression analysis was conducted with dependent the variables presented Depressive and Anxiety problems (table 4) according to DSM-IV and independent variables the EMSs, it was found that Abandonment, Social Isolation/Alienation, Defectiveness/Shame, Failure, Vulnerability to Harm or Illness, Enmeshment/ Undeveloped Self, Subjugation, Self-sacrifice, Insufficient Self-Control/Self-Discipline, Approval-

Table 2. EMS Mean scores according to whether they had ever visited a specialist, with effect sizes.

#### Have you ever visited a specialist and/or been hospitalized No Yes Mean Mean **Effect** р (SD) (SD) size **Emotional Deprivation** 0.42 1.92 (0.89) < 0.001 2.32 (1.12) Abandonment < 0.001 0.44 2.27 (0.87) 2.67 (1.07) Mistrust Abuse < 0.001 0.31 2.2 (0.84) 2.47 (0.99) Social isolation/Alienation 0.47 < 0.001 1.86 (0.77) 2.25 (1.04) Defectiveness/Shame 1.49 (0.63) 1.79 (0.89) < 0.001 0.43 Failure 0.001 0.23 1.65 (0.72) 1.82 (0.81) 0.40 Dependence/Incompetence < 0.001 1.7 (0.68) 1.99 (0.85) Vulnerability to harm or illness 0.43 < 0.001 1.77 (0.75) 2.11 (0.9) Enmeshment/Undeveloped self 0.34 < 0.001 1.86 (0.78) 2.14 (0.95) Subjugation < 0.001 0.41 1.87 (0.74) 2.2 (1.02) Self-Sacrifice 0.205 0.09 3.05 (1) 3.14 (1.01) **Emotional Inhibition** 2.28 (0.99) 0.003 0.21 2.5 (1.21) Unrelenting standards/ 0.180 0.10 3.12 (0.91) 3.21 (1.01) Hypercriticalness Entitlement/Grandiosity 0.001 0.23 2.75 (0.85) 2.95 (0.98) Insufficient Self-Control/ 0.006 2.51 (0.89) 2.68 (0.92) 0.19 Self-discipline Approval-seeking/Recognition-0.011 0.17 2.74 (0.94) 2.91 (1.08) seeking Negativity/Pessimism < 0.001 0.38 2.27 (0.91) 2.63 (1.03) **Punitiveness** 0.264 0.07 2.42 (0.81) 2.48 (0.91)

Seeking/Recognition-Seeking, Negativity/Pessimism and Punitiveness were independently associated and could predict depression. The amount of variance of Depressive problems that explained by the EMSs was 43.1%. Also, linear regression analysis showed that Abandonment, Defectiveness/Shame, Vulnerability to Harm or Illness, Self-Sacrifice, Unrelenting Standards/Hypercriticalness, Entitlement/Grandiosity, Negativity/Pessimism were predictive for Anxiety problems and the total variance explained by the EMSs according to adjusted R2 was 34.8%.

#### Discussion

The study examined the internal consistency and the validity of the Greek YSQ-S3. The internal consistency reliability of the schema factors in our study could be considered satisfactory with a Cronbach's alpha coefficient of 0.70 or above for all factors in both samples.

The schema factors discriminated well between non-clinical and clinical sample. Differences in all schema factors were statistically significant, except for Unrelenting Standards/Hypercriticalness,

Table 3. Pearson correlation coefficients between YSQ-S3 factors and DSM oriented ASR dimensions.

YSQ	Depressive Problems	Anxiety Problems	Avoidant Personality Problems	Antisocial Personality Problems	Impulsivity Subscale
Emotional Deprivation	0.43		0.43		
Abandonment	0.50	0.47	0.42		0.30
Mistrust/Abuse	0.36	0.34	0.41		
Social Isolation/Alienation	0.41		0.53	0.30	
Defectiveness/Shame	0.48		0.51	0.35	
Failure	0.48		0.43		
Dependence/Incompetence	0.51	0.32	0.43	0.35	0.30
Vulnerability to harm or illness	0.46	0.48	0.33	0.30	0.30
Enmeshment/Undeveloped self	0.44	0.34	0.38		
Subjugation	0.53	0.34	0.5		
Emotional Inhibition			0.47		
Entitlement/ Grandiosity				0.31	0.32
Insufficient Self-Control/ Self-discipline	0.37			0.36	0.40
Negativity/Pessimism	0.50	0.49	0.41		0.32
Total YSQ score	0.59	0.48	0.55		0.38

Entitlement and Approval-Seeking/Recognition-Seeking. This finding is consistent with previous studies on the discriminative validity of the YSQ. <sup>23,25</sup> Our student population resembles the sample of these studies; specific characteristics, such as high competitive, success oriented individuals, and narcissistic features of the new generation could explain the relatively high mean scores of the aforementioned EMSs.

An interesting finding is that the EMSs Emotional Deprivation, Vulnerability to Harm or Illness, Subjugation, Social Isolation/Alienation and Defectiveness/Shame had the highest effect sizes and discriminative ability between not only the clinical and non-clinical sample, but also between the non-clinical participants according to whether they had ever visited a mental health specialist. This may suggest that these EMSs are more sensitive and useful markers of psychological problems. Moreover, the EMSs Emotional Deprivation,

Abandonment, Mistrust/Abuse, Social Isolation/ Alienation had higher scores and better discriminated patients with comorbid personality diagnosis from patients with only Axis I diagnosis. This finding is consistent with Schema theory, as these EMSs are associated with earlier in life traumatic experiences and insecure attachment and lie in the core of personality pathology.<sup>1</sup>

The convergent validity analysis indicated that the 18 EMSs showed a reasonable pattern of associations and theoretically meaningful correlations, according to the literature between EMS and symptomatology, especially depression and anxiety<sup>11,18,19,24,25,27–29</sup> or personality problems,<sup>23,29–33</sup> as measured by the DSM-IV oriented subscales of the ASR.

The main strength of our study is the large sample size.

This study has also several limitations: (1) The cross-sectional design of the study did not allow the study of test-retest reliability. (2) The study of

**Table 4.** Results from multiple linear regression analyses for Depression and Anxiety problems with independent the variables presented the 18 EMSs.

	Depressive problems			Anxiety problems		
	β*	SE**	р	β*	SE	р
Emotional deprivation	0.20	0.15	0.174	-0.15	0.09	0.108
Abandonment	0.78	0.16	< 0.001	0.80	0.10	< 0.001
Mistrust/Abuse	-0.31	0.17	0.064	-0.08	0.10	0.453
Social isolation/Alienation	0.38	0.18	0.034	0.16	0.11	0.160
Defectiveness/Shame	0.52	0.24	0.028	-0.45	0.15	0.002
Failure	0.52	0.22	0.016	0.01	0.13	0.956
Dependence/Incompetence	0.38	0.24	0.109	0.11	0.15	0.437
Vulnerability to harm or illness	0.56	0.18	0.002	0.85	0.12	< 0.001
Enmeshment/Undeveloped self	0.38	0.17	0.030	0.12	0.11	0.269
Subjugation	0.73	0.20	< 0.001	-0.15	0.12	0.244
Self-Sacrifice	0.25	0.12	0.036	0.29	0.08	< 0.001
Emotional Inhibition	0.06	0.12	0.654	0.04	0.08	0.631
Unrelenting Standards/ Hypercriticalness	-0.18	0.15	0.248	0.33	0.10	0.001
Entitlement/Grandiosity	-0.19	0.16	0.246	-0.25	0.10	0.014
Insufficient Self-Control/Self-discipline	0.58	0.15	<0.001	0.04	0.09	0.673
Approval-Seeking/Recognition- Seeking	-0.31	0.13	0.020	-0.15	0.08	0.083
Negativity/Pessimism	0.75	0.18	< 0.001	0.65	0.11	< 0.001
Punitiveness	-0.44	0.15	0.004	-0.09	0.10	0.353

<sup>\*</sup>Regression coefficient; \*\*Standard Error

convergent validity was based on an inventory (ASR) which assess clinical syndromes in general, instead of personality traits, as YSQ does. (3) The clinical sample completed the YSQ-L3, from which we extracted the items of the YSQ-S3. This process may have influenced the results due to the group format of the items of each EMS in the YSQ-L3. (4) The cross-sectional character of our study did not allow the estimation of predictive validity in different time points. Nevertheless, we can assume that EMS, as personality traits, exist before the emergence of Anxiety or Depressive problems.

In conclusion, the greek version of the YSQ-S3 showed good internal consistency reliability and validity.

**Acknowledgments:** The authors did not get any financial support or funding for this study.

The study was approved by the Human Rights and Ethical Committee (84/5-3-2009) of the 1st Department of Psychiatry, Eginition Hospital, School of Medicine, University of Athens, Athens, Greece. No animals have been used in this study.

Preliminary data of this study were presented at The International Society of Schema Therapy (ISST) Congress in Istanbul, June 2014.

The authors would like to thank Professor loannis Zervas for his supervision on the whole project of validation of the greek version of the YSQ-S3 and for his precious comments on the method, the results and the discussion of this paper.

## Στάθμιση της εππηνικής έκδοσης του Young Schema Questionnaire-Short Form 3 (YSQ-S3): Αξιοπιστία εσωτερικής συνάφειας και εγκυρότητα

Ι.Α. Μαλογιάννης, 1,2 Αικ. Αγγελή, 2,3 Ντ. Γαρώνη, 1,2 Χ. Τζαβάρα, 1. Μιχόπουλος, Α. Πεχλιβανίδης, Α. Καλαντζή-Αζίζι, Γ.Ν. Παπαδημητρίου 1

<sup>1</sup>Α΄ Ψυχιατρική Κλινική, Αιγινήτειο Νοσοκομείο, Ιατρική Σχολή, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, <sup>2</sup>Ελληνική Εταιρεία Θεραπείας Σχημάτων, Αθήνα,

<sup>3</sup>Τμήμα Ψυχολογίας, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών,

<sup>4</sup>Κέντρο Μελετών Υπηρεσιών Υγείας, Τμήμα Υγιεινής, Επιδημιολογίας και Ιατρικής Στατιστικής, Ιατρική Σχολή, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών,

 $^5$ Β΄ Ψυχιατρική Κλινική, Αττικόν Νοσοκομείο, Ιατρική Σχολή, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, Αθήνα

Ψυχιατρική 2018, 29:220-230

Η Θεραπεία Σχημάτων είναι ένα συνδυαστικό μοντέλο ψυχοθεραπείας, το οποίο ενσωματώνει στοιχεία από τη γνωσιακή συμπεριφοριστική θεραπεία, τη θεωρία δεσμού, τη θεωρία των αντικειμενοτρόπων σχέσεων και από μοντέλα εστιασμένα στο συναίσθημα. Εμφανίζει σημαντική αποτελεσματικότητα στη θεραπεία των διαταραχών προσωπικότητας, καθώς και άλλων χρόνιων συναισθηματικών δυσκολιών. Κεντρική εννοιολογική δομή της Θεραπείας Σχημάτων αποτελούν τα Πρώιμα Δυσλειτουργικά Σχήματα (ΠΔΣ). Πρόκειται για αυτο-ηττώμενα πυρηνικά θέματα ή μοτίβα, τα οποία προκύπτουν ως αποτέλεσμα μη εκπλήρωσης πυρηνικών συναισθηματικών αναγκών της παιδικής ηλικίας. Έχουν περιγραφεί 18 ΠΔΣ, τα οποία ομαδοποιούνται σε 5 κατηγορίες. Τα ΠΔΣ αξιολογούνται με το Ερωτηματολόγιο Σχημάτων του Young στη σύντομη μορφή του [Young Schema Questionnaire Short form 3 (YSQ-S3)], αποτελούμενο από 90 ερωτήσεις, και στην εκτεταμένη μορφή του [Young Schema Questionnaire – Long form 3 (YSQ-L3)], αποτελούμενο από 232 ερωτήσεις. Σκοπός της παρούσας εργασίας ήταν η μελέτη της αξιοπιστίας εσωτερικής συνοχής και της εγκυρότητας της ελληνικής έκδοσης του YSQ-S3. Ένα μη κλινικό δείγμα 1.236 προπτυχιακών φοιτητών συμπλήρωσε το YSQ-S3 και 124 ασθενείς με διαγνώσεις στον Άξονα Ι, στον Άξονα ΙΙ ή και στους δύο, συμπλήρωσαν το YSQ-L3. Επιπλέον, και τα δυο δείγματα συμπλήρωσαν το δεύτερο μέρος της Κλίμακας Αυτοαναφοράς Ενηλίκων [Adults Self Report (ASR)]. Η αξιοπιστία της εσωτερικής συνοχής των σχημάτων ως παραγόντων ήταν ικανοποιητική, με τον συντελεστή Cronbach's alpha να κυμαίνεται από 0,70 και άνω για όλους τους παράγοντες τόσο στο δείγμα των σπουδαστών όσο και στο κλινικό δείγμα. Τα μεγέθη επίδρασης ήταν υψηλά για τις περισσότερες κλίμακες όσον αφορά στη διάκριση μεταξύ κλινικού δείγματος και σπουδαστών. Τα ΠΔΣ Συναισθηματική Στέρηση, Ευαλωτότητα σε Βλάβη ή Ασθένεια, Υποταγή, Κοινωνική Απομόνωση/ Αποξένωση και Μειονεξία/Ντροπή είχαν υψηλότερα μεγέθη επίδρασης τόσο στο κλινικό δείγμα όσο και στο δείγμα των σπουδαστών, ανάλογα με το αν είχαν επισκεφθεί ποτέ κάποιον επαγγελματία ψυχικής υγείας. Το γεγονός αυτό πιθανώς υποδεικνύει τα συγκεκριμένα ΠΔΣ ως πιο ευαίσθητους δείκτες ανίχνευσης ψυχολογικών προβλημάτων. Επιπρόσθετα, στο κλινικό δείγμα οι ασθενείς με διάγνωση στον Άξονα ΙΙ είχαν σημαντικά υψηλότερη βαθμολογία στα ΠΔΣ Συναισθηματική Στέρηση, Εγκατάλειψη, Κοινωνική Απομόνωση/Αποξένωση, Καχυποψία/Κακοποίηση σε σχέση με τους ασθενείς που είχαν διάγνωση μόνο στον Άξονα Ι. Το εύρημα αυτό είναι σύμφωνο με τη θεωρία σχημάτων, καθώς αυτά τα ΠΔΣ σχετίζονται κυρίως με πρώιμες τραυματικές εμπειρίες της παιδικής ηλικίας και δημιουργία ανασφαλούς δεσμού και αποτελούν το υπόβαθρο ανάπτυξης παθολογίας προσωπικότητας. Οι παράγοντες του YSQ-S3 συσχετίστηκαν σημαντικά με όλες τις διαστάσεις του ASR και η ανάλυση γραμμικής παλινδρόμησης έδειξε ότι συγκεκριμένα ΠΔΣ μπορούσαν να προβλέψουν προβλήματα Άγχους και Κατάθλιψης. Συνολικά, η ελληνική εκδοχή του YSQ-S3 έδειξε καλή αξιοπιστία και εγκυρότητα.

**Λέξεις ευρετηρίου**: Πρώιμο Δυσλειτουργικό Σχήμα, εγκυρότητα, αξιοπιστία εσωτερικής συνάφειας, Ερωτηματολόγιο Σχημάτων του Young.

#### References

- Young JE, Klosko JS, Weishaar ME. Schema therapy: A practitioner's guide. Guilford Press, New York, 2003
- Bamelis LL, Evers SM, Spinhoven P, Arntz A. Results of a multicenter randomized controlled trial of the clinical effectiveness of schema therapy for personality disorders. *Am J Psychiatry* 2014, 171:305–322, doi: 10.1176/appi.ajp.2013.12040518
- Farrell JM, Shaw IA, Webber MA. A schema-focused approach
  to group psychotherapy for outpatients with borderline personality disorder: a randomized controlled trial. *J Behav Ther Exp Psychiatry* 2009, 40:317–328, doi: 10.1016/j.jbtep.2009.01.002
- Giesen-Bloo J, van Dyck R, Spinhoven P, van Tilburg W, Dirksen C, van Asselt T, et al. Outpatient psychotherapy for borderline personality disorder: randomized trial of schema-focused therapy vs transference-focused psychotherapy. *Arch Gen Psychiatry* 2006, 63: 649–658, doi:10.1001/archpsyc.63.6.649
- Malogiannis IA, Arntz A, Spyropoulou A, Tsartsara E, Aggeli A, Karveli S, et al. Schema therapy for patients with chronic depression: A single case series study. J Behav Ther Exp Psychiatry 2014, 45:319–329, doi: 10.1016/j.jbtep.2014.02.003
- Nadort M, Arntz A, Smit JH, Giesen-Bloo J, Eikelenboom M, Spinhoven P et al. Implementation of outpatient schema therapy for borderline personality disorder with versus without crisis support by the therapist outside office hours: A randomized trial. *Behav Res Ther* 2009, 47:961–973, doi:10.1016/j. brat.2009.07.013
- Young JE. Cognitive therapy for personality disorders: A schemafocused approach. Professional Resource Exchange, Florida, 1990
- 8. Bowlby J. A secure base: Parent-child attachment and healthy human development. Basic Books, New York, 1988
- Beck AT, Rush AJ, Shaw BF, Emery G. Cognitive therapy of depression. Guildford Press, New York, 1979
- Young JE, Brown G. Young schema questionnaire. In: Young JE (ed) Cognitive therapy for personality disorders: A schemafocused approach (2nd ed) Professional Resource Exchange, Florida, 1994
- Schmidt NB, Joiner TE, Young JE, Telch MJ. The Schema Questionnaire: Investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. Cognit Ther Research 1995, 19:295–321, doi:10.1007/ BF02230402
- Lee CW, Taylor G, Dunn J. Factor structure of the Schema Questionnaire in a large clinical sample. Cognit Ther Research 1999, 23:441-451, doi:10.1023/A:1018712202933

- Young JE. Young schema questionnaire short form. New York: Cognitive Therapy Center, New York, 1998
- 14. Stopa L, Thorne P, Waters A, Preston J. Are the short and long forms of the young schema questionnaire comparable and how well does each version predict psycho- pathology scores? J Cognit Psychother Intern Quarterly 2001,125:253–272
- Waller G, Meyer C, Ohanian V. Psychometric properties of the long and short versions of the Young Schema-Questionnaire: Core beliefs among bulimic and comparison women. *Cognit Ther Research* 2001, 25:137–147, doi:10.1023/A:1026487018110
- Hoffart A, Sexton H, Hedley LM, Wang CE, Holthe H, Haugum JA et al. The structure of maladaptive schemas: A confirmatory factor analysis and a psychometric evaluation of factor-derived scales. *Cognit Ther Research* 2005, 29:627–644, doi:10.1007/ s10608-005-9630-0
- Rijkeboer MM, van den Bergh H. Multiple group confirmatory factor analysis of the Young Schema-Questionnaire in a Dutch clinical versus non-clinical population. *Cognit Ther Research* 2006, 30:263–278, doi: 10.1007/s10608-006-9051-8
- Baranoff J, Oei TPS, Kwon SM, Cho S. Factor structure and internal consistency of the young schema questionnaire (short form). J Affect Disord 2006, 93:133–140, doi: 10.1016/j.jad. 2006.03.003
- Calvete E, Estevez A, Lopez de Arroyabe E, Ruiz P.The Schema Questionnaire-Short Form; structure and relationship with automatic thoughts and symptoms of affective disorders. *Eur J Psychologic Assessm* 2005, 21:90–99, doi: 10.1027/1015-5759.21.2.90
- Young JE, Brown G. Young Schema Questionnaire Long Form 3 (YSQ-L3). Schema Therapy Institute, New York, 2003
- Young JE. Young Schema Questionnaire Short Form (YSQ-S3)
   3rd ed. Schema Therapy Institute, New York, 2005
- Oei TP, Baranoff J. Young Schema Questionnaire: Review of psychometric and measurement issues. *Austr J Psychol* 2007, 59:78–86, doi: 10.1080/00049530601148397
- Saariaho T, Saariaho A, Karila I, Joukamaa M. The psychometric properties of the Finnish Young Schema Questionnaire in chronic pain patients and a non-clinical sample. *J Behav Ther Exp Psychiatry* 2009, 40:158–168, doi: 10.1016/j.jbtep.2008.07.005
- Hawke LD, Provencher MD. The Canadian French Young Schema Questionnaire: Confirmatory factor analysis and validation in clinical and nonclinical samples. Can J Behaviour Sci 2012, 44:40–49, doi: 10.1037/a0026197
- Soygut G, Karaosmanoglu A, Cakir Z. Assessment of early maladaptive schemas: A psychometric study of the Turkish

- Young Schema Questionnaire-Short Form-3. *Turk J Psychiatry* 2009, 20:75–84, PMID: 19306129
- Rijkeboer MM, van den Bergh H, van den Bout J. Stability and discriminative power of the Young Schema-Questionnaire in a Dutch clinical versus non-clinical population. *J Behav Ther Exp Psychiatry* 2005, 36:129–144, doi.org/10.1016/j.jbtep. 2004.08.005
- Welburn K, Coristine M, Dagg P, Pontefract A, Jordan S. The Schema Questionnaire Short Form: Factor analysis and relationship between schemas and symptoms. *Cognit Ther Research* 2002, 26:519–530, doi: 10.1023/A:1016231902020
- Harris AE, Curtin L. Parental perceptions, early maladaptive schemas, and depressive symptoms in young adults. Cognit Ther Research 2002, 26:405–416, doi:10.1023/A:1016085112981
- Glaser B, Campbell LF, Calhoun GB, Bates JM, Petrocelli JV.
   The Early Maladaptive Schema Questionnaire-Short Form: A construct validity study. Measurem Evaluat Counsell Developm 2002, 35:2–13
- Kriston L, Schafer J, von Wolff A, Harter M, Holzel, LP. The latent factor structure of Young's early maladaptive schemas: are schemas organized into domains? *J Clin Psychol* 2012, 68:684–698, doi: 10.1002/jclp.21846
- Ball SA, Cecero J J. Addicted patients with personality disorders: traits, schemas, and presenting problems. *J Pers Disord* 2001, 15:72–83, doi: 10.1521/pedi.15.1.72.18642
- Nordahl HM, Nysaeter TE. Schema therapy for patients with borderline personality disorder: a single case series. J Behav Ther Exp Psychiatry 2005, 36:254–264, doi: 10.1016/j. jbtep.2005.05.007
- Petrocelli JV, Glaser BA, Calhoun GB, Campbell LF. Early maladaptive schemas of personality disorder subtypes. J Pers Disord 2001, 15:546–559, doi:10.1521/pedi.15.6.546.19189
- Thimm JC. Mediation of early maladaptive schemas between perceptions of parental rearing style and personality disorder symptoms. J Behav Ther Exp Psychiatry 2010, 41:52–59, doi: 10.1016/j.jbtep.2009.10.001

- 35. Leung N, Waller G, Thomas G. Core beliefs in anorexic and bulimic women. *J Nerv Ment Dis* 1999, 187:736–741, doi: 10.1097/00005053-199912000-00005
- Waller G, Ohanian V, Meyer C, Osman S. Cognitive content among bulimic women: The role of core beliefs. *Intern J Eat Disord* 2000, 28:235–241, doi: 10.1002/1098-108X(200009)28:2<235:AID-EAT15>3.0.CO:2-1
- Waller G, Shah R, Ohanian V, Elliott P. Core beliefs in bulimia nervosa and depression:The discriminant validity of Young's Schema-Questionnaire. *Behav Ther* 2001, 32:139–153, doi: 10.1016/S0005-7894(01)80049-6
- 38. Malogiannis I, Aggeli Aik, Garoni D, Tzavara Ch, Michopoulos I, Pehlivanidis A et al. Confirmatory Factor Analysis of the Young Schema Questionnaire-Short Form 3 (YSQ-S3) in a clinical and a large non-clinical sample. Manuscript under preparation, 2017
- Achenbach TM, Rescorla LA. Manual for the ASEBA Adult Forms & Profiles. Burlinghton, University of Vermont Research Center for Children, Youth, and Families, 2003
- 40. Tsaousis I. Factor Structure and Psychometric Properties of the ASEBA Adult Self-Report Form for Ages 18–59 in the Greek Language. Paper presented at 16th European Congress on Personality, 10–14 July 2010, Trieste
- 41. DeVellis RF. Scale development: Theory and applications. 4th ed. Thousand Oaks, CA: Sage Publications, 2017:96

Corresponding author: I.A. Malogiannis, 18 Panos street, GR-105 55 Athens, Greece, Tel: (+30) 6945 898 082 e-mail: ioannis.malogiannis@gmail.com