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Factor structure and psychometric properties of the Greek version of Saving Inventory-Revised (SI-R) in a non-clinical sample

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Hoarding disorder is a debilitating condition that results from difficulty or inability to discard possessions and the need to save items and leads to cluttered living space. It impedes normal everyday functioning and causes significant distress and dysfunction. The aim of the current study was to validate the Greek version of the Saving Inventory-Revised (SI-R) in a non-clinical sample of 554 Greek adults. Factor structure and psychometric properties were investigated. Common exploratory (EFA) and confirmatory factor analysis (CFA) were used to explore the factor structure of the data. A three-factor solution was emerged for the Greek SI-R Which appears to cover the clinical dimensions of the phenomenon and consists of clutter, difficulty discarding and acquisition dimensions. This finding is in accordance with the original English version as well as other adaptations of the instrument in other languages. Some items cross loaded but such findings of cross loading items are also reported in related literature. The Greek version of the SI-R exhibits satisfactory internal consistency and good test retest reliability (stability). The current study also aimed to gather evidence towards the convergent and discriminant validity of Greek SI-R. Findings showed no correlation with measurements of different constructs such as anxiety, depression and non-hoarding obsessive compulsive symptoms but also only partial correlation with measurements of relative clinical constructs, such as hoarding items in obsessive compulsive inventories. Current findings suggest that the Greek SI-R can be a useful tool in the detection and evaluation of hoarding symptoms in Greek population.

Key words: Hoarding disorder, acquisition, discarding, clutter, Saving Inventory-Revised, reliability, validity.

Introduction

Hoarding disorder (HD) is a chronic clinical condition which is estimated to affect 2% to 6% of the general population.¹ It is characterized by the difficulty discarding and the need to save possessions, regardless of their actual value, which leads to cluttered living areas and causes significant distress or impairment.² It is a serious psychiatric problem with multiple negative consequences on different aspects of life. Hoarding is related to poorer quality of life.³ In its severe form it constitutes a serious barrier in everyday functioning at work⁴ and at home⁵ preventing proper use of living space and basic daily activities completion. It has been associated to higher risk for fire and falling, poor sanitation and illness.⁶⁻⁸ It can put not only sufferers' life and health at direct threat but also those living with or near them.^{9,10} Its negative impact on family and social life has been repeatedly reported^{11,12} along with its direct and indirect economic burden for the individual as well as the community.⁹

The Saving Inventory-Revised¹³ (SI-R) is a hoarding-specific measure widely used for the evaluation of the disorder. It estimates the clinical features of the condition and also evaluates associated distress and impairment related to its clinical aspects without referring to specific idiosyncratic characteristics such as specific hoarding beliefs, which can be evaluated separately,¹⁴ or specific types of possessions in order not to narrow its applicability to the wide, idiosyncratic range of the possessions gathered.¹³

In its original English version, a three factors structure has been emerged covering the three main clinical domains of hoarding, namely clutter, difficulty discarding and acquisition.¹³ The English version demonstrates satisfactory internal consistency for the complete scale as well as of each subscale separately. In terms of convergent validity, it correlates strongly to other measurements of hoarding, such as self and observed home clutter ratings, and activity dysfunction^{4,13,15} Discriminant validity of SI-R is shown by weaker correlations with non-hoarding constructs such as anxiety and negative affect.¹³

The SI-R has been adapted and validated in a number of languages including German,¹⁶ Spanish,¹⁷ Portuguese,¹⁸ Farsi,¹⁹ and Italian,²⁰ showing high applicability in different cultural contexts.

Despite the above-mentioned noteworthy prevalence of hoarding, its negative impact in numerous life domains and high research interest on the development of specialized measures for the detection and evaluation of the phenomenon,²¹ to our knowledge, no specialized instrument has been adapted for use in Greek. The purpose of this study was to translate, validate and examine the psychometric properties of the Greek version of the SI-R.

Material and method

Participants

The data were obtained by 554 individuals who voluntarily agreed to participate anonymously to a psychological study conducted by the First Department of Psychiatry of Athens University Medical School. To meet inclusion criteria the participants had to be 18 years old or more, to possess at least primary school education and not been treated for any psychiatric disorder. The participants were informed about the procedures and written consent was obtained before proceeding to the participation.

The SI-R was also re-administered in a random subgroup of 54 individuals in order to assess the test-retest reliability of the scale with one month between-assessments interval. Also, the scale was administered along with other measures, which are reported in detail below, to obtain evidence towards validity.

Saving Inventory-Revised (SI-R) (13)

The SI-R is a 23 item self-report questionnaire with a 5- point Likert scale ranging from 0 (strongly agree) to 4 (strongly disagree). It assesses difficulty discarding, excessive clutter in the living areas and excessive acquisition of items as well as the associated distress and impairment.

Two versions of the instrument in Greek were created independently and after their comparison a final one was formed. This version was back translated to English by an independent to the study bilingual psychologist, unfamiliar with the original version.

Few differences were detected and phrasing was adapted accordingly. The final version was administered to 16 people who were debriefed after completing the inventory in order to check for clarity and comprehensibility of the items.

The following scales were also administered in order to examine the validity of the Greek version of SI-R, namely:

The Stait – Trait Anxiety Inventory (STAI)²² is a self-report measure assessing anxiety as a state condition and anxiety as a trait characteristic that consists of 40 questions on a 4-point Likert Scale. The STAI Greek version has good psychometric qualities and is widely used.²³

The Beck Depression Inventory (BDI)²⁴ is a self-report scale which consists of 21 items on a scale value of 0 to 3 used to measure depressive symptoms and their severity. It is widely used in clinical and research contexts. The Greek version has adequate validity and reliability.²⁵

The Symptom Checklist 90-R (SCL-90-R),²⁶ is a self-report measure of present psychopathology. The 10 items of the obsessive-compulsive traits (OCD dimension) of the Greek version of SCL-90-R were used.²⁷

The Vancouver Obsessive Compulsive Inventory (VOCI)²⁸ is a questionnaire that assesses a variety of symptoms and characteristics of the obsessive-compulsive disorder. It consists of 6 subscales (contamination, checking obsessions, hoarding, just-rightness, and indecisiveness) and exhibits good psychometric properties both in clinical and student samples. The hoarding subscale of VOCI was translated-back translated and then administered along with the rest of the questionnaires.

The Obsessive Compulsive Inventory –Revised (OCI-R)²⁹ is an 18-item questionnaire that assesses distress associated with obsessive compulsive symptoms on a 0 to 4 Likert type scale. It consists of six subscales (washing, checking, ordering, obsessing, hoarding, and neutralizing). The hoarding subscale of OCI-R was also translated-back translated and then administered along with the rest of the inventories.

Statistical analysis

As the ordinal rating scale had 5 points and no floor or ceiling effects were present, we used the common factor models exploratory (EFA) and confirmatory factor analysis (CFA) to explore the factor structure of the data. To evaluate measurement invariance, we used the multiple indicators-multiple causes (MIMIC) model and multiple group CFA analysis. The suitability of the data to be factor analysed was evaluated using the Kaiser-Meyer-Olkin (KMO) measure along with the item specific measures of sampling adequacy (MSA),³⁰ and the Bartlett's test of sphericity.^{31,32} For model selection, we consider information derived from the scree plot, Kaiser's criterion,³³ the total variance explained, the loading's magnitude, and the following absolute and relative measures of fit: the relative chi-square (rel χ^2 : values close to 2 indicate close fit),³⁴ the Root Mean Square Error of Approximation (RMSEA, values less than 0.8 are required for adequate fit),³⁵ the Tucker-Lewis Index (TLI, values higher than 0.9 are required for close fit)³⁶ and the Comparative Fit Index (CFI, values higher than 0.9 are required for close fit).³⁷

Cronbach's alpha coefficient α ,³⁸ the item-total and inter-item correlations³⁹ were used to evaluate the internal consistency of the scale. Cohen's weighted kappa k_w ⁴⁰ was used to estimate the test retest reliability on item level and the intraclass correlation coefficient (ICC)⁴¹ was used to estimate agreement in the factor and total scores (two way mixed-absolute agreement).⁴²

Parametric (t-tests, ANOVA, Pearson correlation coefficient) and non-parametric tests (Mann-Whitney U) were employed for hypothesis testing, dependent upon the distribution of the data (symmetrical or not, respectively). Pearson's chi-square test was used to estimate associations between categorical variables.

Results

Demographic characteristics of the sample

The demographic characteristics of the sample are presented in table 1. There were no differences in the proportions of men and women in the sample. The mean age was 36.4 (± 11.9) years

Table 1. Demographic characteristics of the sample.

Gender	Male: 246 (44.4%)		Female: 307 (55.4 %)		Missing: 1 (0.5%)
Marital status	Single: 152 (27.4%)	Living with partner: 231 (41.7%)	In a relationship: 135 (24.4%)	Divorced or widowed: 35 (6.3%)	Missing: 1 (0.2%)
Living with	Alone: 90 (21%)	Sharing: 345 (79%)			Missing: 3 (1%)
Profession	Public sector: 110 (19.9%)	Private sector: 168 (30.3%)	Self employed: 61 (11%)	Non-employed: 201 (36.3%)	Missing: 14 (2.5%)
				Pensioners: 27 (4.9%)	
				Students: 99 (17.9%)	
				Unemployed: 75 (13.5%)	
Education	Primary: 27 (5%)	Secondary: 165 (30%)	Higher: 362 (65.3%)		
	Up to 1000€: 218 (39.4%)	1001-1500€: 101 (18.2%)	1501-2500€: 102 (21.8%)	2501+ : 98 (17.7%)	Missing: 16 (2.9%)

old (range 18–67) with no statistically significant age differences between the two genders (Mann-Whitney test: $z=-1.058$, $p=0.290$). Women reported more often than men (70% versus 59%) a Bachelors or a post graduate degree ($\chi^2=8.4$, $df=23$, $p\text{-value}=0.015$). Women worked more often than men in the public sector (24.5% versus 15.4%, $\chi^2=10.5$, $df=3$, $p\text{-value}=0.015$); no other gender differences were found with respect to the other professions. There was no gender gap with respect to the income ($\chi^2=1.09$, $df=3$, $p\text{-value}=0.781$) and no differences with respect to living alone or not ($\chi^2=2.5$, $df=1$, $p=0.117$).

Factor analysis

The initial sample was randomly divided into two spit-halves, using a random number generating algorithm in SPSS.⁴³ This approach ensures that the two samples do not have significant differences in terms of the clinical and demographic characteristics. The first spilt-half was used to perform exploratory factor analysis and the second was used in confirmatory factor analysis. EFA was conducted using the SPSS 25 (IBM, 2017) and CFA was conducted in Amos 23.⁴⁴

Exploratory factor analysis

Bartlett's test of sphericity was statistically significant (approximate $\chi^2=3167.1$, $df=253$, $p<0.001$), the KMO was 0.92, and the MSA per item varied between 0.85 and 0.95. These diagnostic tests indicate that there are sufficient associations among the items that can potentially be attributed to common latent cause(s).

EFA using the principal axes factoring method for factor extraction and Promax oblique rotation was used. Three eigenvalues of the sample correlation matrix were higher than 1 (9.1, 2.25, 1.8) advising according to Kaiser's criterion that that up to three factors could be extracted. The three factors explained 58% of the items' total variance. The 3-factor model extracted by EFA replicated to a great extent the Frost et al (2014) 3-factor solution: (a) Clutter (CL: items 3,6,7,12,13,14,18,20, 21), (b) Discarding (DD: items 1, 2, 4, 11,16,17, 23), and (c) Acquisition (AC: items 5, 8, 9, 10, 15, 19, 22). Table 2 presents the loadings of the items to the three fac-

Table 2. EFA loadings (EFA sample) and CFA loadings within brackets (CFA sample) – Cohen's weighted kappa for the agreement between time points.

Item	Statement	Factor loadings			Stability	
		Clutter	Discarding	Acquisition	kw (95% CI)	(%) agreement
CL18	Difficulty in navigating through living spaces	0.83 (0.59)			0.8 (0.7, 1.0)	94.7
CL14	Difficulty in inviting people due to clutter	0.75 (0.60)			0.6 (0.4, 0.9)	95.8
CL20	Difficulty in using spaces due to clutter	0.75 (0.80)			0.5 (0.3, 0.8)	96.1
CL12	Clutter prevents using home spaces	0.72 (0.72)			0.5 (0.2, 0.9)	89.8
CL21	Inability of control over clutter	0.69 (0.75)			0.5 (0.2, 0.8)	95.6
CL7	Dysfunction due to clutter	0.67 (0.63)			0.6 (0.4, 0.9)	94.3
CL6	Cluttered living spaces	0.58 (0.64)			0.7 (0.6, 0.9)	95.5
CL13	Distress due to clutter	0.49 (0.59)			0.6 (0.4, 0.8)	95.5
CL3	Amount of clutter	0.41 (0.56)	0.47		0.7 (0.4, 0.9)	96.8
DD1	Difficulty throwing things		0.93 (0.77)		0.5 (0.3, 0.6)	85.2
DD2	Distress discarding		0.88 (0.77)		0.7 (0.4, 0.9)	97.1
DD4	Avoid discarding		0.80 (0.67)		0.6 (0.4, 0.8)	97.1
DD11	Frequency of saving things not needed		0.67 (0.68)		0.6 (0.4, 0.8)	92
DD23	Inability to discard possessions		0.66 (0.71)		0.7 (0.6, 0.9)	94.8
DD16	Need/urge to save items of no apparent use		0.43 (0.66)	0.32	0.6 (0.4, 0.8)	94.9
DD17	Control over urge to save		0.41 (0.72)	0.3	0.6 (0.3, 0.8)	96.3
AC10	Control over need/urge to acquire items			0.83 (0.68)		
AC9	Strength of need/ urge to acquire			0.82 (0.78)	0.4 (0.3, 0.6)	94.2
AC15	Buying unneeded items			0.78 (0.66)	0.6 (0.5, 0.8)	92.8
AC8	Compelled to acquire			0.76 (0.72)	0.5 (0.3, 0.7)	95.3
AC22	Financial difficulties due to saving or buying			0.49 (0.43)	0.5 (0.3, 0.8)	96.9
AC5	Discomfort of not acquiring			0.47 (0.49)	0.8 (0.7, 0.9)	95.7
AC19	Distress over acquiring habits	0.54		0.27 (0.50)	0.7 (0.5, 0.9)	97.5

tors. All items load to the factors suggested by Frost et al (2004). However, there were some items which cross-loaded to a second factor as well. In particular, item 3 ("amount of clutter") loaded also to factor DD, the items 16 ("need/ urge to save items of no apparent use") and 17 ("control over urge to save") loaded also on AC, and item 19 ("Distress over acquiring habits") loaded also on factor CL.

Confirmatory factor analysis

CFA was used in the second sub sample. Three models were evaluated, namely: M_1 : the one-factor model which assumes unidimensionality, M_2 : the 3-factor model suggested by Frost et al,¹³ and M_3 : the 3-factor model which was suggested for our data using EFA.

According to the goodness of fit indices, the one factor solution did not fit our data (rel $\chi^2= 4.8$, RMSEA=0.117, TLI= 0.65, CFI=0.68). The fit was substantially improved for the 3 factors model (rel $\chi^2= 2.8$, RMSEA=0.08, TLI= 0.84, CFI= 0.85). The fit was slightly further improved by adding the cross loadings suggested by EFA (rel $\chi^2= 2.4$, RMSEA= 0.071, TLI= 0.87, CFI= 0.89).

Based on the CFA and EFA results, we can conclude that the scale is not unidimensional for the Greek population either. Even though some cross loadings might exist, we conclude that the Frost et al¹³ model is adequate for our data. In the following we consider only the M_2 model for all subsequent analysis.

Measurement invariance

The MIMIC model was used to evaluate potential measurement non-invariance due to age. No statistically significant direct effect was found between age and any of the items. Multiple group CFA was used to evaluate the effect of gender on the measurement model. The configural model fitted well in our data ($\chi^2=3.5$, RMSEA=0.07, TLI=0.8, CFI=0.8) and therefore Frost et al¹³ model can be used in both genders. According to the chi-square test (diff test $\chi^2=28.3$, $df=20$, $p=0.103$) no loadings were found to differ between genders. Therefore, we may conclude that no bias due to age or gender is expected in the responses of the scale.

Reliability

Internal consistency

Cronbach's alpha coefficient was satisfactory for the total SI-R ($\alpha= 0.92$) and all factors (Clutter $\alpha=0.85$, Acquisition $\alpha=0.82$, and Discarding $\alpha=0.88$). The inter-item correlations within the factors were lower than 0.75 and higher than 0.3, and the inter-total correlations varied between 0.32 and 0.71. The alpha if item deleted was also computed for each item and there was no item that reduced the reliability. Therefore, there were no problematic items with respect to internal consistency and the scale can be considered sufficiently reliable.

Test-retest reliability (stability in time)

For the evaluation of the test-retest reliability the scale was re-administered to 54 items within two weeks' time. Cohen's weighted kappa coefficient and the percentage of agreement of the responses between the two time-points for each item separately, indicate fair to high agreement, with no problematic items emerging according to Landis and Koch (1977) criteria. Satisfactory was also the ICC for each factor: Clutter ICC=0.9 (0.8, 0.9), Acquisition ICC=0.8 (0.7, 0.9), Discarding ICC=0.9 (0.8, 0.9), and Total score ICC=0.9 (0.8, 0.9). Therefore, we conclude that the scale is substantially stable in time.

Scores, associations, and evidence towards validity

The descriptive indices of the three factors (per gender and in total) are presented in table 3. There were no significant differences between men and women. According to one-way ANOVA there were no significant differences in the HS total scores with respect to work status ($F(551,2)=1.381$, $p=0.252$), educational level ($F(536,3)=2.181$, $p=0.089$), income levels ($F(419,3)=0.074$, $p=0.974$) and living status (living alone yes versus no ($t=-1.390$, $df=548$, $p=0.165$)). There were however significant differences with respect to marital status. There were significant differences in the mean Clutter scores (mmeand diff=1.7, $se=0.4$) between those who were single versus those who not ($t: 3.148$, $df=381$, $p=0.002$).

The factor intercorrelations and the correlations with age are presented in table 4. There were moderate to high factor intercorrelations (range 0.5 - 0.9),

Table 3. Descriptive indices and gender differences.

	Men (N=307)		Women (N=246)		Total (N=553)		Independent samples t-test
	Mean (sd)	Median (min-max)	Mean (sd)	Median (min-max)	Mean (sd)	Median (min-max)	
Clutter	6.8 (5.3)	5 (0–28)	7.2 (5.5)	6 (0–27)	7 (5.4)	6 (0–28)	t=-0.956, p=0.340
Discarding	9.5 (5.4)	9 (0–25)	9.3 (5.2)	9 (0–28)	9.4 (5.3)	9 (0–28)	t=0.368, p=0.713
Acquisition	5.3 (4)	5 (0–20)	5.0 (3.9)	4 (0–21)	5.2 (4)	4 (0–21)	t=0.899, p=0.369
Total score	21.6 (12.2)	19 (1–65)	21.6 (12.7)	19 (0–73)	21.6 (12.4)	19 (0–73)	t=0.032, p=0.975

Table 4. Pearson’s correlation coefficients between HS scores and other measures.

	Clutter		Acquisition		Discarding		Total score	
	r	p	r	p	r	p	r	P
Age	-0.1	0.003	-0.2	<0.001	-0.1	0.028	-0.2	0.001
Clutter			0.65	<0.001	0.59	<0.001	0.89	<0.001
Acquisition					0.50	<0.001	0.81	<0.001
Discarding							0.84	<0.001
SCL-9-R (OCD)	0.2	0.226	0.2	0.094	0.2	0.105	0.2	0.069
STAI (state)	-0.1	0.697	0.1	0.588	-0.2	0.237	-0.1	0.640
STAI (trait)	0.1	0.460	0.1	0.449	0.0	0.938	0.1	0.431
BDI	0.1	0.623	0.2	0.240	0.1	0.261	0.2	0.150
VOCI	0.3	0.028	0.4	0.005	0.3	0.014	0.4	0.005
OCI 1 (save)	0.1	0.628	0.2	0.227	0.0	0.775	0.1	0.553
OCI 2 (collect)	0.1	0.319	0.2	0.124	0.2	0.236	0.2	0.236
OCI 3 (avoid throwing)	0.1	0.451	0.3	0.023	0.2	0.142	0.2	0.15

whilst very low negative correlations emerged between age and all scores. With respect to the correlation coefficients between the HS scores and other measures, only the correlations with VOCI were significant, yet low to moderate (table 4).

Discussion

In the present study, the Greek version of the SI-R was tested on a large general population sample. The SI-R had satisfactory internal consistency; Cronbach’s

α value was 0.92 for the total scale and ranging between 0.82 to 0.88 for the factors. The three-factor structure¹³ was replicated in our data, namely the Clutter, Acquisition and Discarding dimensions. The three dimensions of the SIR showed high correlations with each other and the total scale.

The psychometric properties of the Greek version of the SIR are well comparable with those of other versions in non-clinical sample literature. Most studies support the three-factor structure of the SIR as well.^{15,13,16–18,20}

In our data, the items loaded to their originally designed factor. There were a few exceptions such as items 16 and 17 which cross-loaded to another factor as well, with higher target loading to the appropriate one, though. Item 3 loaded almost the same to two factors, including the expected one whereas item 19 cross loaded higher to another factor besides the expected one. Findings of cross loading are reported in other versions such as the Spanish version with three items not loading to the original factor¹⁷ and the Italian, with one item cross loading to another factor yet lower than target loading.²⁰ Possibly, as stated by Frost et al¹³ that differences in participants samples may explain the variation in factor structure of each version.

The Greek version of the SI-R had a high internal consistency with no problematic items to be reported. Cronbach's α values ranged from 0.820 to 0.880 for all factors of the scale and 0.92 for the whole scale. The item-subscale correlations were moderate to high; from 0.3 to 0.75. The related literature report Cronbach's α ranging from 0.63 to 0.94 for the total as well as each factor.^{15,13,17,18,20} Thus, our results are comparable to the ones reported in the corresponding literature.

The Greek SI-R showed satisfactory stability in time, for all factors and the total score (ICC=0.9), but also as independent factors; Clutter (ICC=0.9), Acquisition (ICC=0.8) and Discarding (ICC=0.9). Even though in community samples studies, such as the Brazilian version, the SI-R showed lower test retest reliability than the one in clinical samples¹⁸ our findings are among the highest in the corresponding literature.

There were no significant differences in scoring SI-R between males and females, different education levels, family status, occupation and age. Mixed findings are reported in other studies with community samples. Some exhibit similar findings in terms of gender, age and marital status,^{17,20} whereas others find positive correlation with age.¹⁸ It remains to be seen whether relations with demographic characteristics would be different in a clinical sample.

The three factors of the SI-R correlated strongly with each other and with the total scale. The correlations with the other scales that were used as

standards were not significant or were low to moderate. The SI-R did not show correlations with BDI, STAI and OCD subscales from SCL-90, which is an indication of divergent validity, since they measure different constructs than SI-R (depression, anxiety and non-hoarding OCD symptoms, respectively). Even though the VOI and OCI subscales were used as similar construct measures our findings showed moderate correlations only with the VOI. This could be attributed to the fact that the study sample was not clinical. Furthermore, to the way these instruments were used here, since similar construct questionnaires were not standardized for Greek population. Nonetheless the direction of these findings could be considered in accordance with other studies showing that the SI-R tends to correlate more with hoarding than non-hoarding related instruments.²⁰

There are some limitations in our study. Our sample was based to volunteers, introducing possible bias. The sample did not include clinical cases, because there were no large numbers of patients available. External validity was not assessed in this study, as there were no reliable measures for the Greek population at the time of the study.

Conclusion

The findings of the present study suggest that the Greek version of the SI-R had satisfactory psychometric properties (reliability, validity and structural validity). In nonclinical samples the SI-R shows good psychometric properties with respect to factor structure and internal consistency of the subscales. It can be used in psychiatric practice and help identify clinical cases of Hoarding Disorder. Replication of our findings in a larger sample, including clinical cases, would strengthen the SI-R's properties in Greek language.

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APPENDIX

Saving Inventory-Revised (SI-R)

Ερωτηματολόγιο Αποθήκευσης

Παρακαλώ κυκλώστε την απάντηση που σας φαίνεται πιο κατάλληλη.

- | | |
|--|--|
| <p>1. Πόσο δυσκολεύεστε να πετάξετε πράγματα που έχετε στην κατοχή σας;</p> <p>0=καθόλου
1=λίγο
2=μέτρια
3=πολύ
4=πάρα πολύ</p> <p>2. Πόσο δυσάρεστο σάς είναι να πετάξετε πράγματα που έχετε στην κατοχή σας;</p> <p>0=καθόλου δυσάρεστο
1=λίγο δυσάρεστο
2=μέτρια δυσάρεστο
3=πολύ δυσάρεστο
4=πάρα πολύ δυσάρεστο</p> <p>3. Σε ποιον βαθμό έχετε συσσωρεύσει τόσα πράγματα ώστε να έχουν κατακλυστεί δωμάτια του σπιτιού σας;</p> <p>0=καθόλου
1=λίγο
2=μέτρια
3=πολύ
4=πάρα πολύ</p> <p>4. Πόσο συχνά αποφεύγετε την προσπάθεια να πετάξετε πράγματά σας γιατί αυτό σας προκαλεί δυσφορία ή είναι χρονοβόρο;</p> <p>0=ποτέ δεν αποφεύγω, εύκολα πετάω πράγματα
1=σπάνια αποφεύγω, μπορώ να πετάξω πράγματα με μικρή δυσκολία
2=μερικές φορές το αποφεύγω
3=συχνά το αποφεύγω, πότε-πότε μπορώ να πετάξω πράγματα
4=σχεδόν πάντοτε το αποφεύγω, σπανίως μπορώ να πετάξω πράγματα</p> <p>5. Πόσο δυσάρεστα θα νιώθατε αν δεν μπορούσατε να αποκτήσετε κάτι που θα θέλατε;</p> <p>0=καθόλου
1=λίγο, ελάχιστο άγχος
2=μέτρια, θα βίωνα κάποια δυσφορία αλλά θα μπορούσα να τη χειριστώ</p> | <p>3=πολύ, θα βίωνα σημαντική ενόχληση και δυσφορία</p> <p>4=πάρα πολύ, δεν θα μπορούσα να αντέξω τη δυσφορία</p> <p>6. Πόση έκταση των χώρων του σπιτιού καταλαμβάνουν τα αντικείμενα που έχετε συσσωρεύσει; (αναλογιστείτε τον βαθμό συγκέντρωσης πραγμάτων στη κουζίνα, το υπνοδωμάτιο, το σαλόνι, την τραπεζαρία, τον διάδρομο, το λουτρό ή άλλα δωμάτια)</p> <p>0=κανένας χώρος διαβίωσης δεν είναι κατειλημμένος
1=κάποιοι από τους χώρους διαβίωσης είναι κατειλημμένοι
2=μεγάλο μέρος των χώρων διαβίωσης είναι κατειλημμένοι
3=το μεγαλύτερο μέρος των χώρων διαβίωσης είναι κατειλημμένοι
4=όλοι ή σχεδόν όλοι οι χώροι διαβίωσης είναι κατειλημμένοι</p> <p>7. Κατά πόσο η συσσώρευση πραγμάτων παρεμβαίνει στο πώς λειτουργείτε στην κοινωνική, στην επαγγελματική σας ζωή ή στην καθημερινότητά σας; Σκεφτείτε τι δεν μπορείτε να κάνετε εξαιτίας της συσσώρευσης πραγμάτων.</p> <p>0=καθόλου
1=λίγο, μικρή παρέμβαση που όμως δεν επηρεάζει το πώς λειτουργώ στην καθημερινή ζωή
2=μέτρια, σίγουρα παρεμβαίνει, όμως σε βαθμό που μπορώ να το διαχειριστώ
3=πολύ, παρεμβαίνει σε σημαντικό βαθμό
4=πάρα πολύ, αδύνατον να το διαχειριστώ</p> <p>8. Πόσο συχνά νιώθετε εξαναγκασμένος να αποκτήσετε κάτι που βλέπετε; (π.χ. όταν ψωνίζετε ή όταν σας προσφέρουν κάτι δωρεάν)</p> <p>0=ποτέ δεν νιώθω εξαναγκασμό
1=σπάνια νιώθω εξαναγκασμό
2=μερικές φορές νιώθω εξαναγκασμό
3=συχνά νιώθω εξαναγκασμό
4=σχεδόν πάντοτε νιώθω εξαναγκασμό</p> <p>9. Πόσο έντονη είναι η τάση (επιθυμία) να αγοράσετε ή να αποκτήσετε δωρεάν πράγματα τα οποία δεν σας χρειάζονται άμεσα;</p> |
|--|--|

- 0=η τάση δεν είναι καθόλου έντονη/ δεν υπάρχει τέτοια τάση
 1=ήπια τάση
 2=μέτρια τάση
 3=ισχυρή τάση
 4=πολύ ισχυρή τάση
10. Πόσο ελέγχετε αυτήν την τάση (επιθυμία) να αποκτήσετε πράγματα;
 0=πλήρης έλεγχος
 1=αρκετός έλεγχος, συνήθως είμαι σε θέση να ελέγξω την τάση για απόκτηση
 2=μέτριος έλεγχος, μπορώ να συγκρατήσω την τάση αλλά μόνο με προσπάθεια
 3=μικρός έλεγχος, μπορώ μόνο να καθυστερήσω την τάση για απόκτηση αλλά με μεγάλη δυσκολία
 4=κανένας έλεγχος, αδύνατον να σταματήσω την τάση να αποκτήσω κάτι
11. Πόσο συχνά αποφασίζετε να κρατήσετε πράγματα που δεν χρειάζεστε και που δεν έχετε χώρο να αποθηκεύσετε;
 0=ποτέ δεν κρατάω τέτοια πράγματα
 1=σπάνια κρατάω τέτοια πράγματα
 2=περιστασιακά κρατάω τέτοια πράγματα
 3=συχνά κρατάω τέτοια πράγματα
 4=σχεδόν πάντοτε κρατάω τέτοια πράγματα
12. Σε ποιον βαθμό η συσσώρευση πραγμάτων σας εμποδίζει να χρησιμοποιήσετε χώρους του σπιτιού σας;
 0=όλα τα μέρη του σπιτιού χρησιμοποιούνται
 1=λίγα τμήματα του σπιτιού δεν μπορούν να χρησιμοποιηθούν
 2=μερικά τμήματα του σπιτιού δεν μπορούν να χρησιμοποιηθούν
 3=αρκετά τμήματα του σπιτιού δεν μπορούν να χρησιμοποιηθούν
 4=σχεδόν όλα τα τμήματα του σπιτιού δεν μπορούν να χρησιμοποιηθούν
13. Σε ποιον βαθμό η συσσώρευση πραγμάτων στους χώρους του σπιτιού σας προκαλεί δυσφορία;
 0=καμία δυσφορία
 1=λίγη δυσφορία
 2=μέτριου βαθμού δυσφορία
 3=σημαντική δυσφορία
 4=πάρα πολλή δυσφορία
14. Πόσο συχνά η συσσώρευση πραγμάτων στο σπίτι σας εμποδίζει να προσκαλέσετε επισκέπτες;
 0=καθόλου
 1=σπάνια
 2=μερικές φορές
 3=συχνά
 4=πολύ συχνά ή σχεδόν πάντοτε
15. Πόσο συχνά αγοράζετε (ή αποκτάτε δωρεάν) πράγματα που δεν χρειάζεστε άμεσα ή καθόλου;
 0=ποτέ
 1=σπάνια
 2=μερικές φορές
 3=συχνά
 4=σχεδόν πάντοτε
16. Πόσο έντονη είναι η τάση (επιθυμία) να κρατήσετε κάτι που γνωρίζετε ότι μπορεί να μην το χρησιμοποιήσετε ποτέ;
 0=καθόλου έντονη τάση (επιθυμία)
 1=λίγη τάση (επιθυμία)
 2=μέτρια τάση (επιθυμία)
 3=έντονη τάση (επιθυμία)
 4=πολύ έντονη τάση (επιθυμία)
17. Πόσο ελέγχετε την τάση (επιθυμία) να φυλάξετε πράγματα;
 0=πλήρης έλεγχος
 1=αρκετός έλεγχος, συνήθως είμαι σε θέση να ελέγξω την τάση (επιθυμία) να μαζέψω πράγματα
 2=μέτριος έλεγχος, μπορώ να ελέγξω την τάση (επιθυμία) να κρατήσω πράγματα αλλά με δυσκολία
 3=μικρός έλεγχος, μπορώ να ελέγξω την τάση (επιθυμία) να κρατήσω πράγματα αλλά με πολύ μεγάλη δυσκολία
 4=κανένας έλεγχος, αδύνατον να σταματήσω την τάση (επιθυμία) να μαζέψω πράγματα
18. Σε πόσα μέρη του σπιτιού σας είναι δύσκολο να βαδίσετε εξαιτίας της συσσώρευσης πραγμάτων;
 0=σε κανένα
 1=σε μερικά μέρη είναι δύσκολο να βαδίσει κανείς
 2=σε πολλά μέρη είναι δύσκολο να βαδίσει κανείς
 3=στα περισσότερα μέρη είναι δύσκολο να βαδίσει κανείς
 4=σε όλα ή σχεδόν σε όλα τα μέρη είναι δύσκολο να βαδίσει κανείς
19. Πόση δυσφορία σας προκαλούν οι συνήθειές σας σχετικά με την απόκτηση πραγμάτων;

- 0=καθόλου
1=με ενοχλούν λίγο
2=με ενοχλούν μέτρια
3=με ενοχλούν πολύ
4=με ενοχλούν πάρα πολύ
20. Σε ποιον βαθμό η συσσώρευση πραγμάτων στο σπίτι σας εμποδίζει να χρησιμοποιήσετε τμήματά του για τους σκοπούς για τους οποίους προορίζονται; (π.χ. μαγείρεμα, να πλύνετε τα πιάτα, να καθαρίσετε, να χρησιμοποιήσετε έπιπλα κ.λπ.)
0=καθόλου δεν με εμποδίζει
1=σπάνια με εμποδίζει
2=μερικές φορές με εμποδίζει
3=συχνά με εμποδίζει
4= σχεδόν πάντα με εμποδίζει
21. Σε ποιον βαθμό αισθάνεστε αδύναμος να ελέγξετε τη συσσώρευση πραγμάτων στο σπίτι σας;
0=καθόλου αδύναμος
1=σε μικρό βαθμό
2=σε μέτριο βαθμό
3=σε σημαντικό βαθμό
4=σε πολύ μεγάλο βαθμό
22. Σε ποιον βαθμό η φύλαξη ή η αναγκαστική αγορά πραγμάτων σας έχει προκαλέσει οικονομικές δυσκολίες;
0=καθόλου, δεν μου έχει προκαλέσει οικονομικές δυσκολίες
1=μου έχει προκαλέσει μικρές οικονομικές δυσκολίες
2=μου έχει προκαλέσει κάποιες οικονομικές δυσκολίες
3=μου έχει προκαλέσει αρκετά πολλές οικονομικές δυσκολίες
4=μου έχει προκαλέσει μεγάλες οικονομικές δυσκολίες (σε υπερβολικό βαθμό)
23. Πόσο συχνά νιώθετε αδυναμία να πετάξετε πράγματα που έχετε στην κατοχή σας και από τα οποία θα θέλετε να απαλλαγείτε;
0=ποτέ δεν είχα πρόβλημα να πετάξω πράγματά μου
1=σπάνια
2=ευκαιριακά
3=συχνά
4=πολύ συχνά, σχεδόν πάντα δεν μπορώ να πετάξω πράγματά μου.

Παραγοντική ανάλυση και ψυχομετρικές ιδιότητες της ελληνικής εκδοχής της κλίμακας Saving Inventory-Revised (SI-R) σε δείγμα μη κλινικού ελληνικού πληθυσμού

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ρινή λειτουργία του ατόμου σε πολλούς τομείς και συνδέεται με σημαντική δυσφορία. Ο σκοπός της παρούσας έρευνας ήταν η στάθμιση της ελληνικής εκδοχής της κλίμακας Saving Inventory – Revised (SI-R) (Ερωτηματολόγιο Αποθήκευσης) σε μη κλινικό δείγμα 554 Ελλήνων ενηλίκων. Διερευνήθηκε η παραγοντική ανάλυση και οι ψυχομετρικές της ιδιότητες. Εκτελέστηκε διερευνητική και επιβεβαιωτική παραγοντική ανάλυση οι οποίες ανέδειξαν τρεις παράγοντες, άτακτη συσσώρευση (clutter), δυσκολία απόρριψης (difficulty discarding) και απόκτηση (acquisition) δεδομένο που συμφωνεί με την αρχική λύση των ερευνητών του πρωτότυπου αγγλικού εργαλείου καθώς και με τις προσαρμογές του σε άλλες γλώσσες. Παρατηρήθηκε διπλή φόρτιση σε τρία λήμματα, κάτι που αναφέρεται και σε άλλες σχετικές μελέτες για το εργαλείο. Επίσης η ελληνική εκδοχή του SI-R επιδεικνύει υψηλή εσωτερική εγκυρότητα καθώς επίσης και αξιοπιστία επαναληπτικών μετρήσεων. Στην παρούσα μελέτη επιχειρήθηκε η διερεύνηση της συγκλίνουσας και αποκλίνουσας εγκυρότητας της ελληνικής εκδοχής. Τα αποτελέσματα έδειξαν πως το ελληνικό SI-R δεν συσχετίζεται με άλλα εργαλεία μέτρησης μη συγγενικών κλινικών θεωρητικών κατασκευών, όπως άγχος, κατάθλιψη και μη παρασυσσωρευτικά ιδεοψυχαναγκαστικά συμπτώματα, ενώ φάνηκε να συσχετίζεται μερικώς με λήμματα που μετρούν παρασυσσωρευτική συμπτωματολογία σε άλλα εργαλεία ψυχαναγκαστικότητας. Γενικά τα παρόντα ευρήματα δείχνουν ότι η παρούσα ελληνική εκδοχή του SI-R μπορεί να θεωρηθεί ένα χρήσιμο κλινικό εργαλείο για την ανίχνευση και την εκτίμηση της βαρύτητας των παρασυσσωρευτικών συμπτωμάτων σε ελληνικό πληθυσμό.

Λέξεις ευρετηρίου: Διαταραχή παρασυσώρευσης, απόκτηση, απόρριψη, αταξία, Ερωτηματολόγιο Αποθήκευσης, αξιοπιστία, εγκυρότητα.

References

1. Steketee G, Frost RO. Phenomenology of Hoarding. In: Frost RO & Steketee G (ed) *Handbook of Hoarding and Acquiring*. Oxford University Press, New York, NY, 2014:19–32
2. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 5th ed. American Psychiatric Publishing, Arlington, VA, 2013
3. Saxena S, Ayers CR, Maidment KM, Vapnik T, Wetherell JL, Bystritsky A. Quality of life and functional impairment in compulsive hoarding. *J Psychiatr Res* 2011, 45:475–480, doi: 10.1016/j.jpsychires.2010.08.007
4. Tolin DF, Frost RO, Steketee G. An open trial of cognitive-behavioral therapy for compulsive hoarding. *Behav Res Ther* 2007, 45:1461–1470, doi: 10.1016/j.brat.2007.01.001
5. Frost RO, Hartl TL. A cognitive-behavioral model of compulsive hoarding. *Behav Res Ther* 1996, 34:341–50, doi: 10.1016/0005-7967(95)00071-2
6. Frost RO, Steketee G, Williams L. Hoarding: a community health problem. *Health Soc Care Community* 2000, 8:229–234, doi: 10.1046/j.1365-2524.2000.00245.x
7. Frost RO, Hristova V, Steketee G, Tolin DF. Activities of Daily Living in Hoarding Disorder (ADL-H) *J Obsess Compuls Relat Disord* 2013, 2:85–90, doi: 10.1016/j.jocrd.2012.12.004
8. Kim HJ, Steketee G, Frost RO. Hoarding by elderly people. *Health Soc Work* 2001, 26:176–184, doi: 10.1093/hsw/26.3.176
9. Tolin DF, Frost RO, Steketee G, Gray KD, Fitch KE. The economic and social burden of compulsive hoarding. *Psychiatry Res* 2008, 160:200–211, doi: 10.1016/j.psychres.2007.08.008
10. Frost RO, Gross RC. The hoarding of possessions. *Behav Res Ther* 1993, 31:367–381, doi: 10.1016/0005-7967(93)90094-b
11. Tolin DF, Frost RO, Steketee G, Fitch KE. Family burden of compulsive hoarding: Results of an Internet survey. *Behav Res Ther* 2008, 46:334–344, doi: 10.1016/j.brat.2007.12.008
12. Tompkins MA. Working with families of people who hoard: a harm reduction approach. *J Clin Psychol* 2011, 67:497–506, doi: 10.1002/jclp.20797
13. Frost RO, Steketee G, Grisham J. Measurement of compulsive hoarding: Saving inventory-revised. *Behav Res Ther* 2004, 42:1163–1182, doi: 10.1016/j.brat.2003.07.006
14. Steketee G., Frost RO, Kyrios, M. Cognitive aspects of compulsive hoarding. *Cognitive Ther Res* 2003, 27:463–479, doi: 10.1023/A:1025428631552
15. Coles ME, Frost RO, Heimberg RG, Steketee, G. Hoarding behaviors in a large college sample. *Behav Res Ther* 2003, 41:179–194, doi: 10.1016/s0005-7967(01)00136-x
16. Mueller A, Crosby RD, Frost RO, Leidel B, Bleich S, Glaesmer H et al. Fragebogen zum zwanghaften Horten (FZH)- Validierung der deutschen version des Saving Inventory-Revised. *Verhaltenstherapie* 2009, 19:243–250, doi: 10.1159/000253877
17. Tortella-Feliu M, Fullana M, Caseras X, Andi6n, Σ, Torrubia R, Mataix-Cols D. Spanish version of the Saving Inventory- Revised (SI-R): Adaptation, psychometric properties, and relationship to personality variables. *Behavior Modification* 2006, 30:693–712, doi: 10.1177/0145445505278326
18. Fontenelle I, Prazeres A, Borges M, Rang6 B, Versiani M, Fontenelle L. The Brazilian Portuguese version of the Saving Inventory-Revised (SI-R): Internal consistency, test-retest reliability, and validity of a questionnaire to assess hoarding. *Psychologic Report* 2010, 106:279–296, doi: 10.2466/PRO.106.1.279-296

19. Mohammadzadeh, A. Validation of Saving Inventory-Revised (SI-R): Compulsive hoarding measure. *IJPCP* 2009, 15:33–41
20. Melli G, Chiorri C, Smurra R, Frost RO. Psychometric Properties of the Paper-and-Pencil and Online Versions of the Italian Saving Inventory-Revised in Nonclinical Samples. *Intern J Cognit Ther* 2013, 6: 40–56, doi: 10.1521/ijct.2013.6.1.40
21. Frost RO, Hristova V. The assessment of hoarding. *J Clin Psychol* 2011, 67:456–466, doi: 10.1002/jclp.20790
22. Spielberger CD, Gorsuch RL, Lushene RE, Vagg PR, Jacobs GA. *The State-Trait Anxiety Inventory of Adults (STAIT)*. Manual. Palo Alto, CA: Mind Garden; 1983, doi: 10.1037/t06496-000
23. Fountoulakis KN, Papadopoulou M, Kleanthous S, Papadopoulou A, Bizeli V, Nimatoudis I et al. Reliability and psychometric properties of the Greek translation of the State-Trait Anxiety Inventory form Y: Preliminary data. *Ann Gen Psychiatry* 2006, 5:2, doi: 10.1186/1744-859X-5-2
24. Beck AT, Steer RA, Brown GK. *Manual for the Beck Depression Inventory-II*. TX: Psychological Corporation, San Antonio, 1996
25. Giannakou M. *Psychometric properties of a depression scale in greek population*. MSc Thesis, Aristotle University of Thessaloniki, Thessaloniki 2009 (in Greek)
26. Derogatis LR. *The SCL-90-R Manual I. Scoring, Administration and Procedures for the SCL-90*. Baltimore, MD: John Hopkins University School of Medicine, Clinical Psychometrics Unit, Baltimore, 1977
27. Donias S, Karastergiou A, Manos N. Standardization of the symptom checklist-90-R rating scale in a Greek population. *Psychiatriki* 1991, 2:42–48 (in Greek)
28. Thordarson DS, Radomsky AS, Rachman S, Shafran R, Sawchuk CN, Hakstian AR. The Vancouver Obsessional Compulsive Inventory (VOCI). *Behav Res Ther* 2004, 42: 1289–1314, doi: 10.1016/j.brat.2003.08.007
29. Foa EB, Huppert JD, Leiberg S, Langner R, Kichic R, Hajcak G et al. The Obsessive-Compulsive Inventory: development and validation of a short version. *Psychol Assess* 2002, 14: 485–96, doi: 10.1037/1040-3590.14.4.485
30. Kaiser HF, Rice J. Little Jiffy, Mark IV. *Educ Psychol Meas* 1974, 34:111–117, doi: 10.1177/001316447403400115
31. Snedecor GW, Cochran WG. *Statistical Methods*. Eighth Edition. Iowa State University Press, Iowa, 1989
32. Bartlett MS. Properties of sufficiency and statistical tests. *J R Stat Soc Ser A Stat Soc* 1937, 160: 268–282, doi: 10.1098/rspa.1937.0109
33. Kaiser HF. The application of electronic computers to factor analysis. *Educ Psychol Meas* 1960, 20:141–151, doi: 10.1177/001316446002000116
34. Hoelter JW. The analysis of covariance structures: Goodness-of-fit indices. *Sociol Methods Res* 1983, 11325–344, doi: 10.1177/0049124183011003003
35. Browne M, Cudeck R. Alternative ways of assessing model fit. In: Bollen K & Long J (ed) *Testing structural equation models*. Sage, Newbury Park, 1993
36. Bentler PM, Bonett DG. Significance tests and goodness of fit in the analysis of covariance structures. *Psychol Bull* 1980, 88: 588–606, doi: 10.1037/0033-2909.88.3.588
37. Bentler PM. Comparative fit indexes in structural models. *Psychol Bull* 1990, 107:238–246, doi: 10.1037/0033-2909.107.2.238
38. Cronbach LJ. Coefficient alpha and the internal structure of tests. *Psychometrika* 1951, 16:297–334, doi: 10.1007/BF02310555
39. Nunnally JC, Bernstein IH. *Psychometric theory*. 3rd ed. NY: McGraw-Hill Inc, New York, 1994
40. Cohen J. Weighed kappa: Nominal scale agreement with provision for scaled disagreement or partial credit. *Psychol Bull* 1968, 70:213–220, doi: 10.1037/h0026256
41. Koch G, Gary G. Intraclass correlation coefficient. In: Kotz S & Johnson NL (ed) *Encyclopedia of Statistical Sciences*. V. 4. John Wiley & Sons, New York, 1982
42. Landis JR, Koch GG. The Measurement of Observer Agreement for Categorical Data. *Biometrics* 1977, 33:159–174, doi: 10.2307/2529310
43. IBM Corporation. Released 2017. *IBM SPSS Statistics for Windows*, Version 25.0. Armonk, NY: IBM Corp., New York, 2017
44. Arbuckle JL. *Amos 23.0 User's Guide*. IBM SPSS, Chicago, 2014

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