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Research article

Factor structure and psychometric properties of a new 39-item version of the Criteria for Recovery from Eating Disorders questionnaire (CRED-39)

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ABSTRACT

Eating disorders (ED) are a group of mental disorders, which are quite difficult to treat. In studies on the recovery process of ED, patients' experience is rarely been taken into account. In addition, there seems to be a gap between patients' objective improvement, as assessed by clinicians, and patients' own subjective evaluation of their recovery. Criteria for Recovery from Eating Disorders (CRED) is a questionnaire used to investigate recovery criteria which are considered important from the patients' perspective. The purpose of the present study was to examine the factorial structure of CRED and to evaluate its psychometric properties. A sample of 138 patients in ED treatment were asked to complete the CRED along with the WHO questionnaire on quality of life (WHOQoL-BREF) and the eating disorders questionnaire (EDE-Q). Exploratory factor analysis (EFA) was used to explore the factor structure of the CRED. Internal consistency assessment was based on Cronbach's α. Convergent validity was assessed through correlations of CRED with WHOQoL-BREF and EDE-Q. The EFA led to the removal of 13 items of the original CRED and yielded a conceptually justifiable seven factor model: Body Experience, Psychological Well-being, Social Relationships, Gastrointestinal Symptoms, Bodily Functions, Eating Behaviours, and Compensatory Behaviours. Cronbach's alphas of the total questionnaire and all seven factors ranged from 0.77 to 0.88. Convergent validity to WHOQoL-BREF and EDE-Q total scores and subscales were found to be quite satisfactory. Our analysis has, thus, led us to propose the CRED-39, a 39-item version of the CRED questionnaire, which seems to be a valid and reliable tool in assessing ED patients' own view of their recovery process. CRED-39 can be used in clinical practice to address personal needs and to direct individualised interventions.

KEYWORDS: Eating disorders, patient perspective, validity, reliability, factor analysis.

Introduction

Eating disorders (ED) are a group of mental disorders, which are quite difficult to treat, as they manifest through several unique characteristics and set a number of clinical challenges. For example, several patients suffering from anorexia nervosa (AN) lack insight on their body image and express relevant delusional beliefs.[1] The diagnosis of ED often does not remain stable over the years, shifting between AN and Bulimia Nervosa (BN), a fact that has led a number of researchers to suggest a "transdiagnostic" approach to ED classification and therapy.[2,3]

Although psychotherapy is the first line treatment for ED,[4] its effectiveness is limited, especially when symptoms are severe and the duration of illness is long.[5] Moreover, a considerable number of patients, particularly those suffering from AN, drop out of therapy for a variety of reasons.[6] In many cases, patients with ED need several years to recover (average 12–18 years in AN)

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and a substantial number of them do not recover fully, if at all (approximately 50% for AN).[5,7] It is alarming that specialised psychotherapeutic interventions have been found only equally or less effective than nonspecific supportive clinical management for the disorder, which is not considered sufficient in ED treatment.[8] Overall, these points stress the necessity for improving the available therapeutic interventions.

On the other hand, in studies on the recovery process of ED, patient experience has rarely been taken into account. Our knowledge on the effectiveness of ED psychotherapeutic interventions is mainly based on open follow-up studies,[9] where the effectiveness of psychotherapy is assessed based on the diagnostic criteria of the EDs, such as weight restoration, reduction or elimination of bulimic episodes, reduction of excessive fear of obesity and restoration of menstruation. Research on the treatment of EDs is aimed primarily at reducing the physical symptoms such as nutrition restoration, normalization of body weight and absence of purging behaviours. In a study, 79% of patients with AN were considered to have recovered, based on the above criteria, but when psychological criteria (such as mental state, body image and insight) were also taken into account, the recovery rate decreased to 49%.[10] This led clinicians and researchers to differentiate full ED remission from just weight recovery. Moreover, a common observation in clinical practice is that when some patients "recover" from ED symptomatology, they become extremely anxious, distressed or even depressed and in some cases, they start weight-reducing behaviours again.[11] Clearly, there is a gap between objective improvement, as measured by the researchers, and patients' own subjective sense of their recovery.

Patients who have recovered from an ED or have received long-term treatment, report only a small improvement in their quality of life (QoL)[12] and it appears that, in most cases, their QoL index remains poorer than that of controls.[13,14] According to ED patients the most affected areas of their QoL is self-image and well-being.[14] Patients mention that a sense of belonging, having a job or being a student, good physical health, and a general sense of well-being are the most important elements of good QoL.[14]

Lately, it has been suggested that patients' view on their therapy is very important in order to improve existing treatment practices and to achieve better therapeutic outcomes.[15] There are a limited number of questionnaires assessing patient view in Eds.[16–18] Noordenbos and Seubring[18] have created the most extended of those, the Criteria for Recovery from Eating Disorders (CRED) questionnaire, by selecting criteria which were considered important by patients and therapists. They first created a list of the core characteristics and consequences of EDs based on the literature and on the criteria for recovery mentioned in effectiveness and follow-up studies. Patients rated a number of these criteria as very important for their recovery, including eating behaviour, body experience, physical concerns, as well as psychological, emotional and social recovery; therapists on the other hand, rated only three criteria as the most important in assessing recovery of their patients, all of which were related to physical recovery.[18] Noordenbos and Seubring reached the conclusion that beyond eating behaviour and weight restoration, one should take into account psychological, emotional and social recovery, in order to prevent dropout, high relapse rate and to achieve full remission of ED symptomatology.[18]

Since the psychometric properties of CRED have not been published yet by the authors,[18] the purpose of the present study was to examine the factorial structure of the questionnaire and to evaluate its validity and reliability for use in research and clinical practice.

Material and Method

Procedure

Researchers contacted Dr Greta Noordenbos, the CRED developer, and received permission to translate and to use the questionnaire in a research setting. The CRED questionnaire was translated to Greek by independent Greek and English native speakers, following a forward-backward-forward procedure, according to the instructions of the World Health Organization (WHO) for the translation of self-report questionnaires.[19] In addition, the instrument was split translated using a committee-based approach. Any discrepancies that emerged from the comparison of the two approaches were discussed and a few minor adjustments were applied.

The administration of the questionnaire took place in two contributing centres, the Eating Disorders Outpatient Clinic of the First Department of Psychiatry of the National and Kapodistrian University of Athens and the Day Care Centre for Eating Disorders of the NGO "ANASA". Participants, according to the Helsinki declaration, were informed in written on the purpose of the study, their ensured anonymity and data protection, the possibility of non-participation without any implications for the treatment they were receiving, and the researchers' contact details.

Participants

Participants were consecutive admissions to the outpatient services of the contributing centres with an ED diagnosis (AN, BN or ED Not Otherwise Specified -

EDNOS), who were in treatment for ED at least for the past 3 months. ED diagnosis was made by a psychiatrist in the initial assessment of the patient, according to DSM-5[20] criteria. Exclusion criteria were age less than 18 years, severe mental retardation, psychosis or lack of Greek language comprehension. Recorded demographics included gender and age. Body Mass Index (BMI) and menstruation status (MS; normal menstruation or loss of any menstrual cycle in the last four months) were derived from corresponding questions of the EDE-Q.

Measures

Criteria for Recovery from Eating Disorders Questionnaire (CRED)

Noordenbos and Seubring[18] categorised the questionnaire's items into six groups representing behavioural, body experience, somatic, psychological, emotional, and social factors. This procedure resulted in a list of 52 recovery criteria: 9 items on eating behaviour, 5 items on body attitude, 16 items on physical recovery, 8 items on psychological well-being, 9 items on emotional state and 5 items on social adjustment. Each item is rated on a 5-point Likert type scale, with higher scores indicating higher levels of recovery.

World Health Organization Quality of Life Brief questionnaire (WHOQoL-BREF)

The WHOQoL-BREF questionnaire is a self-report inventory of QoL with 26 original items[21] and 4 additional items (nutrition, work satisfaction, home-life and social life), derived from the validation of the questionnaire within Greek populations.[22] The items fall into four domains: physical health, psychological health, social relationships, and environment. Higher scores indicate better QoL. The Greek version of the WHOQoL-BREF by Ginieri-Coccossis et al.[22] has demonstrated good internal consistency, with Cronbach's α ranging from 0.67 to 0.81 across the four domains.

Eating Disorders Examination Questionnaire (EDE-Q) 6.0

The EDE-Q is a self-report questionnaire developed by Fairburn and Wilson,[23] which measures the severity of ED symptomatology. It consists of 28 questions on eating behaviour, clustered in four subscales: restraint eating, eating concern, shape concern and weight concern. Each question is rated on a 6-point Likert type scale and addresses the patient's last 28 days. When appropriate, respondents are requested to provide a frequency count. Each subscale score is presented as a mean score, and Global EDE-Q score is calculated as the mean score of all the four subscales. In a recent study by Giovazolias et al,[24] the validity of the Greek version of EDE-Q was investigated and the results supported both the internal consistency, as well as the concurrent, convergent and discriminant validity of the EDE-Q and its subscales, with Cronbach's alpha ranging from 0.74 to 0.91.

Statistical analysis

An Exploratory Factor Analysis (EFA) was conducted in order to investigate the construct validity of the CRED questionnaire and of its factors, using principal components analysis with varimax rotation.[25] For the EFA, the adequacy of the sample was assessed by the Kaiser-Meyer-Olkin test (KMO) and a Bartlett's test of sphericity. Cronbach's alpha was calculated to reflect the internal consistency of each factor, which was produced by the EFA, separately and of the entire questionnaire. Differential validity among diagnoses (AN, BN, EDNOS) was assessed for each factor, based on the non-parametric Kruskal-Wallis test. Convergent validity was assessed through correlations with WHOQoL-BREF and EDE-Q. Statistical significance level was set at 0.05; analyses were conducted using SPSS version 26.

Results

Sample characteristics

The ED diagnoses for the 138 participants were AN (N=48), BN (N=53) and EDNOS (N=37). Mean age was 27.38 (Std 8.73) years, females N=132 (95.7%), mean BMI 21.52 (Std 6.23) kg/m^2. The EDE-Q and WHOQoL-BREF total and subscales mean scores are presented in table 1.

Table 1. Descriptive statistics for EDE-Q and WHOQoL-BREF.

	Mean	SD
EDE-Q subscales and Global score		
Global EDE-Q score	2.76	1.44
Eating Concern	2.18	1.50
Restraint	2.42	1.67
Shape Concern	3.35	1.65
Weight Concern	3.09	1.63
WHOQoL-BREF subscales		
Overall Quality of Life	13.30	3.93
General Health	13.10	3.92
Physical Domain	13.15	2.63
Psychological Domain	11.43	3.03
Social Relationships	12.10	3.38
Environment Domain	13.61	2.43

EDE-Q: Eating Disorders Examination Questionnaire; SD: Standard Deviation; WHOQoL-BREF: World Health Organization Quality of Life Brief questionnaire

Factorial structure

The EFA results indicated a low fit between the data and the original Noordenbos & Seubring six-group model. The EFA yielded a seven-factor solution (based on scree-plots and eigenvalues≥1.00) with a KMO coefficient equal to 0.74 and a Barlett chi-square value equal to 4512.14 ($p<0.001$). Seven unique pairs of correlations with an absolute value greater than 0.8 were detected by a Spearman's bivariate correlation of each item to all other items. Thus, one item from each of these pairs was removed, based on a qualitative analysis .[26] Since there were overlapping items in the seven pairs, four items were removed, leaving 48 items in total. A further five items were removed, as they either cross-loaded on more than one factor at more than 75% or had a highest loading of less than 0.4 on any factor. Four additional items were excluded, because their removal improved Cronbach's alpha for the factor they belonged to.

The seven emerging factors were identified as Body Experience, Psychological Well-being, Social Relationships, Gastrointestinal (GI) Symptoms, Bodily Functions, Eating Behaviours and Compensatory Behaviours. Of the 13 items of the Noordenbos & Seubring questionnaire which were left out of the final solution, seven belonged to physical recovery criteria, three to eating behaviour criteria, one each to body attitude, psychological well-being and emotional state criteria. Thus, of our solution's 39 items six came from eating behaviour, four from body attitude, nine from physical recovery, seven from psychological well-being, eight from emotional state and five from social adjustment. The final items which constitute the seven factors and their origin from the Noordenbos & Seubring questionnaire are presented in table 2. Thus, the analysis we conducted resulted in a seven-factor model with 39 items, leading to the proposal for a shorter, 39-items CRED questionnaire (CRED-39), with seven subscales. The final model showed a KMO coefficient equal to 0.76 and a Barlett chi-square value equal to 2783.8 ($p<0.001$). The proportion of total variance explained was 58.58%. Factor loadings based on the EFA of the 39 items are presented also in table 2.

Internal consistency and reliability

Cronbach's alpha (reflecting internal consistency) for the total CRED-39 questionnaire was 0.87 and for all subscales (factors) it ranged from 0.77 to 0.88 (table 3). Intercorrelations between the seven subscales are presented in table 4; the average of between subscales correlation coefficients is 0,17. The one-way non-parametric ANOVA (Kruskal-Wallis test), assessing differential validity based on diagnosis, did not show any statistically significant results for any CRED-39 subscales.

Correlations between CRED subscales and external validators

Convergent validity coefficients were examined by non-parametric test (Spearman's correlations) due to non-normal distribution in some of the CRED-39 subscales. The correlation coefficients showed significant association with at least one of the WHOQoL-BREF subscales for all CRED subscales (table 5), except for GI Symptoms. The subscales Body Experience, Psychological Well-being, and Eating Behaviours were negatively correlated with all EDE-Q subscales (table 6), whereas Social Relationships and Bodily Functions subscales were negatively correlated with the Eating and Shape Concern EDE-Q subscales. GI Symptoms and Compensatory Behaviours subscales were weakly negatively correlated with presence of normal menstrual cycles (table 6).

Discussion

The main purpose of the present study was to evaluate the psychometric properties and factorial structure of the CRED questionnaire.[18] Our results did not support the original structure of 52 items for the questionnaire. In the seven subscales solution, suggested by our results, the items of the original emotional state group loaded on Psychological Well-being and Social Relationships. Items reflecting better emotional management (e.g., "I am not depressed"), as well as items reflecting better psychological interaction (e.g., "I dare to express a different opinion") loaded on the Psychological Well-being and Social Relationships, accordingly. The original physical recovery criteria created two distinct subscales, separating Bodily Functions (e.g., "My body temperature is normal") from more specific health recovery criteria related to gastrointestinal problems (e.g., "I have no stomach complaints"). It is known that ED patients experience and focus more on health disturbances related to the gastrointestinal system[27] and this may have led to the creation of a specific subscale for GI Symptoms. Three more of the original physical recovery criteria loaded on the Body Experience subscale. Finally, the new Compensatory Behaviours subscale was created from items of the original eating behaviour group. It seems that healthy eating behaviours (e.g., "I eat three meals a day") are not identical with recovery from eating disorder compensatory behaviours (e.g. "I do not vomit after food intake"). All of these subscale's combinations can be considered conceptually justifiable. Thus, our analysis has led to proposing the CRED-39, a 39-items version

Table 2. Final factor loadings based on the results of exploratory factor analysis.

		Solution Factors**						
Item number*	Item	1	2	3	4	5	6	7
B2	I have a more positive body experience	0.775						
B3	I can accept my appearance and figure	0.763						
C15	I have enough energy	0.700				0.337		
D1	I have adequate self-esteem	0.678						
D3	I am sufficiently assertive	0.658	0.325					
C14	I am not often tired	0.655						
C13	My sleep is normal	0.604						
E9	I can cope with stress in a healthy way	0.530						
D5	I can concentrate well	0.504						
E6	I am not very dependent on the opinions of others		0.753					
E5	I am not too often trying to please others		0.741					
D4	I do not criticise myself very often		0.717					
D7	I have no strong fear of failure		0.715					
D2	My self-esteem is no longer dependent on weight		0.661					
B5	I am not obsessed by food and weight		0.612					
E1	I am not depressed		0.562				0.375	
D6	I am not extremely perfectionistic		0.544					
B4	I do not feel the need to diet	0.326	0.500					
E7	I dare to express a different opinion			0.730				
F3	I am able to initiate contact with others			0.706		0.315		
E8	I am able to handle conflicts			0.646				
F5	I dare to talk about personal experiences			0.625				
F4	I have some good friends			0.602				
E4	I am able to express positive emotions	0.339		0.594				
F1	I am not isolated			0.557				
F2	I participate in social activities			0.465				
E3	I am able to express negative emotions			0.458				
C10	I have no stomach complaints				0.834			
C9	I have no intestinal disturbances				0.819			
C8	I have no constipation				0.698			
C7	My blood pressure is normal					0.855		
C6	My heartbeat is normal					0.805		
C5	My body temperature is normal					0.644		
A2	I eat three meals a day						0.819	
A1	My eating behaviour is healthy and regular	0.321					0.769	
A3	The amount of calories I consume is normal						0.735	
A7	I do not use diuretics							0.864
A5	I do not vomit after food intake							0.841
A9	I do not exercise excessively							0.809

*Item numbers from the original Noordenbos & Seubring questionnaire;[18] the letter refers to Noordenbos & Seubring criteria for recovery (A=eating behaviour, B=body attitude, C=physical recovery, D=psychological recovery, E=emotional state, F=social adjustment)

**The seven factors produced by the solution are: 1 Body Experience, 2 Psychological Well-being, 3 Social Relationships, 4 Gastrointestinal Symptoms, 5 Bodily Functions, 6 Eating Behaviours, 7 Compensatory Behaviours; the loadings to each factor are presented if they exceed 0,3

Table 3. Descriptive statistics for and internal consistencies of the CRED–39 subscales.

CRED–39 subscales	Number of items	Mean Score* (SD)	Median	Skewness (SE)	Kurtosis (SE)	Mean Inter–item correlation	Cronbach's alpha
Body Experience	8	3.03 (0.797)	3.13	–0.107 (0.206)	–0.164 (0.410)	0.266	0.881
Psychological Well–being	9	2.88 (0.810)	3,00	–0.057 (0.206)	–0.143 (0.410)	0.154	0.850
Social Relationships	9	3.75 (0.657)	3.78	–0.197 (0.206)	–0.226 (0.410)	0.218	0.806
GI Symptoms	3	3.05 (1.151)	3.33	–0.167 (0.206)	–0.982 (0.410)	0.091	0.823
Bodily Functions	3	3.88 (0.899)	4,00	–0.584 (0.206)	–0.232 (0.410)	0.176	0.774
Eating Behaviours	3	3.21 (1.014)	3.33	–0.239 (0.206)	–0.768 (0.410)	0.201	0.843
Compensatory Behaviours	3	3.05 (1.500)	3.33	–0.034 (0.206)	–1.650 (0.410)	0.081	0.846

CRED–39: Criteria for Recovery from Eating Disorders – 39 items version; GI: Gastrointestinal
*Each item is rated on a 5–point Likert scale in response to the question "Do you agree with the following statement?" (1=not at all, 2=no, 3=somewhat, 4=yes, 5=strongly), after Noordenbos & Seubring[18]

Table 4. Intercorrelations between CRED-39 subscales (values are Spearman's r coefficients).

CRED-39 subscales	Body Experience	Psychological Well-being	Social Relationships	GI Symptoms	Bodily Functions	Eating Behaviours	Compensatory Behaviours
Body Experience	1.000						
Psychological Well-being	0.441	1.000					
Social Relationships	0.422	0.153	1.000				
GI Symptoms	0.022	0.084	0.016	1.000			
Bodily Functions	0.307	0.087	0.269	0.064	1.000		
Eating Behaviours	0.405	0.228	0.280	0.087	0.215	1.000	
Compensatory Behaviours	0.000	–0.067	0.170	0.273	0.115	–0.007	1.000

CRED-39: Criteria for Recovery from Eating Disorders – 39 items version; GI: Gastrointestinal

Table 5. Correlation between CRED-39 subscales and WHOQoL-BREF (values are Spearman's r coefficients).

	WHOQoL-BREF subscales					
CRED-39 subscales	Overall Quality	General Health	Physical Domain	Psychological Domain	Social Relationships Domain	Environment Domain
Body Experience	0.477**	0.461**	0.687**	0.795**	0.511**	0.252**
Psychological Well-being	0.125	0.033	0.217**	0.337**	0.180*	–0.036
Social Relationships	0.471**	0.206**	0.424**	0.481**	0.681**	0.383**
GI Symptoms	0.035	–0.009	–0.059	–0.076	–0.114	–0.059
Bodily Functions	0.134	0.399**	0.246**	0.227**	0.205**	0.087
Eating Behaviours	0.388**	0.264**	0.415**	0.377**	0.229**	0.235**
Compensatory Behaviours	–0.189*	–0.109	–0.090	–0.042	–0.046	0.116

CRED-39: Criteria for Recovery from Eating Disorders – 39 items version; GI: Gastrointestinal; WHOQoL-BREF: World Health Organization Quality of Life-Brief questionnaire
*p<0.05, **p<0.01

Table 6. Correlation between CRED–39 subscales and EDE–Q (values are Spearman's r coefficients).

	EDE–Q subscales						
CRED–39 subscales	Global EDE–Q	Eating Concern	Restraint	Shape Concern	Weight Concern	BMI	MS
Body Experience	–0.637**	–0.554**	–0.471**	–0.656**	–0.617**	–0.156*	0.280**
Psychological Well–being	–0.334**	–0.339**	–0.284**	–0.287**	–0.285**	–0.099	0.189*
Social Relationships	–0.124	–0.191*	–0.061	–0.146*	–0.114	–0.097	0.062
GI Symptoms	0.003	0.006	0.018	–0.007	0.035	–0.006	–0.228**
Bodily Functions	–0.117	–0.141*	–0.053	–0.152*	–0.137	0.132	0.005
Eating Behaviours	–0.327**	–0.346**	–0.318**	–0.269**	–0.271**	0.061	0.272**
Compensatory Behaviours	0.004	0.015	0.064	–0.053	–0.031	–0.024	–0.174*

BMI=body mass index; CRED–39: Criteria for Recovery from Eating Disorders – 39 items version; EDE–Q: Eating Disorders Examination Questionnaire; GI: Gastrointestinal; MS=menstrual status (0=not normal, 1=normal cycles in the last 4 months)
*p<0.05, **p<0.01

of the original CRED questionnaire, which is shorter, with a more solid structure and seven subscales.

The internal consistency measures (Cronbach's alpha) of the CRED-39 subscales were quite satisfactory, ranging from 0.77 to 0.88, as was the Cronbach's alpha for the entire questionnaire (α=0,87). Furthermore, the low average between subscales correlation coefficients (0.17), confirms the relative independence of the seven subscales from each other.[25] In addition, the mean scores of the CRED subscales suggested that the mean level of recovery is not uniform across the seven areas (table 3). Social Relationships and Bodily Functions received the highest means, reflecting that these are the main areas of improvement after treatment. The Psychological Well-being and Body Experience displayed the lowest mean ratings. This finding confirms previous studies, which have shown that physical recovery does not always imply psychological recovery.[10]

Significant associations were observed between the CRED-39 subscales and the WHOQoL-BREF, as expected. This finding indicates that subjective recovery is in accordance with objective improvement in patients' QoL. In addition, Body Experience, Psychological Well-being and Eating Behaviours subscales were moderately to strongly negatively associated with the EDE-Q subscales. The strongest associations were for the Body Experience suggesting that improvement in the way patients perceive their body (shape and function) is related both to recovery from ED and to improvement in QoL. Also, significant associations between Eating Behaviours and all the WHOQoL-BREF and EDE-Q subscales reflect the importance of eating behaviours restoration to the QoL and to ED symptomatology. Finally, significant negative associations between Psychological Well-being and EDE-Q remind us of the importance of psychological recovery in order to physically recover from an ED. In conclusion, the associations between CRED-39 and EDE-Q show that recovery criteria, as measured by the EDE-Q, are significantly related to the majority of the CRED subscales, most strongly with the subscale related to patients' Body Experience.

The GI Symptoms subscale did not show any significant correlation with the WHOQoL-BREF or the EDE-Q subscales. This finding might be explained based on the fact that GI symptoms are not specifically addressed in any of these two questionnaires.

No significant differences were found in the reported CRED-39 subscales mean scores between different diagnoses of ED. This finding is in line with the literature, which suggests that there is a "transdiagnostic" model for EDs. According to this model, EDs share a common background and the same cognitive and coping mechanisms that maintain the ED.[2,3] Consequently, therapeutic interventions and outcome could be expected to be approximately the same for all ED diagnoses.

The findings of the present study suggest that CRED-39 is a valid and reliable measure that can be used in clinical practice to address the subjective recovery experience in ED patients. There are, however, limitations to the present study, starting with sample size and the need for the results to be replicated in larger samples. Also, a Confirmatory Factor Analysis should be conducted to confirm the fit of the seven-factor model on other populations, as well as, test-retest reliability should be

performed in future research. Finally, the study did not include a sample of fully recovered patients, so we could not test differences between them and patients still being on various stages of treatment.

Patients' view is been increasingly considered to be important in the effort to improve therapies for Eds[15] and to move from a mainly physical approach to a more holistic and individualised one, paying proper attention to psychological, social and emotional criteria; the latter seem to be mentioned as exceptionally important from patients' perspective.[18] In addition, research is recently focused on understanding the psychological and biological mechanisms that drive the illness trajectory over time and on explaining interindividual differences in illness course, severity, and persistence to treatment.[28] Official Clinical Guidelines have addressed the need for more individualised therapeutic approaches as well as for longer treatment duration for severe and enduring ED.[4] It seems that recovery procedure is not completed with weight recovery and in some cases, it could take up to two years, after the completion of therapy, for patients to report a subjective sense of ED recovery.[18]

This study presents a validated measure (a 39-items version of the original CRED questionnaire, CRED-39) of ED patients' perspective on the progress of their therapy, which can be used in clinical practice to identify potential barriers to full recovery. With every patient possibly experiencing difficulties in different areas, a clinician can directly identify these areas by reviewing the subscale scores or by identifying any extreme scores among the individual items. Patient-rated recovery is considered to be useful as an additional measure of ED treatment outcome to guide personalised treatment and to inform treatment policies. In this respect, CRED-39 could be a valuable self-report questionnaire for measuring objective recovery in clinical practice and research settings.

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APPENDIX
Greek translation of CRED-39 questionnaire
Ελληνική μετάφραση του ερωτηματολογίου CRED-39

Ερωτηματολόγιο Κριτηρίων Ανάρρωσης από Διαταραχή Πρόσληψης Τροφής – εκδοχή 39 λημμάτων (CRED-39, Noordenbos & Seubring, 2006, Karapavlou et al 2021)

Το παρόν ερωτηματολόγιο αφορά τους παρακάτω επτά τομείς/κριτήρια ανάρρωσης από διαταραχή πρόσληψης τροφής: εικόνα εαυτού, ψυχική ευεξία, κοινωνικές σχέσεις, γαστρεντερικά συμπτώματα, σωματικές λειτουργίες, διατροφικές συνήθειες και αντιρροπιστικές συμπεριφορές. Αφού συμπληρώσετε αυτό το ερωτηματολόγιο, μπορείτε να ελέγξετε σε συνεργασία με τον θεραπευτή σας σε ποιους τομείς έχετε ήδη βελτιωθεί και σε ποιους τομείς μπορεί να χρειάζεται περισσότερη επικέντρωση στην θεραπεία σας, ώστε να προσπαθήσετε να βρείτε μαζί ποια θεραπευτική στρατηγική θα μπορούσε να είναι χρήσιμη για την περαιτέρω βελτίωσή σας.

Πόσο σας εκφράζουν οι παρακάτω προτάσεις;					
	1=καθόλου,	2=όχι,	3=κάπως	4=ναι	5=πάρα πολύ
I. Εικόνα εαυτού					
1. Έχω πιο θετική στάση απέναντι στο σώμα μου	1	2	3	4	5
2. Μπορώ να αποδεχθώ την εμφάνισή μου	1	2	3	4	5
3. Έχω αρκετή ενέργεια	1	2	3	4	5
4. Έχω αρκετή αυτοπεποίθηση	1	2	3	4	5
5. Αξιολογώ τον εαυτό μου με θετικό τρόπο	1	2	3	4	5
6. Δεν αισθάνομαι κόπωση πολύ συχνά	1	2	3	4	5
7. Ο ύπνος μου είναι φυσιολογικός	1	2	3	4	5
8. Μπορώ να διαχειριστώ το άγχος μου με υγιή τρόπο	1	2	3	4	5
9. Μπορώ να συγκεντρωθώ αρκετά καλά	1	2	3	4	5
II. Ψυχική ευεξία					
10. Δεν εξαρτώμαι υπερβολικά από την αποδοχή των άλλων	1	2	3	4	5
11. Δεν προσπαθώ να ευχαριστώ τους άλλους πολύ συχνά	1	2	3	4	5
12. Δεν κατακρίνω τον εαυτό μου πολύ συχνά	1	2	3	4	5
13. Δεν φοβάμαι συχνά ότι θα αποτύχω	1	2	3	4	5
14. Η αυτοεκτίμησή μου δεν σχετίζεται με το βάρος μου	1	2	3	4	5
15. Δεν έχω εμμονή με το φαγητό και το βάρος	1	2	3	4	5
16. Δεν αισθάνομαι κατάθλιψη	1	2	3	4	5
17. Δεν είμαι υπερβολικά τελειομανής	1	2	3	4	5
18. Δεν νιώθω την ανάγκη να κάνω δίαιτα	1	2	3	4	5

Continues

APPENDIX
Greek translation of CRED-39 questionnaire
Ελληνική μετάφραση του ερωτηματολογίου CRED-39

(Continued)

Πόσο σας εκφράζουν οι παρακάτω προτάσεις;					
	1=καθόλου,	2=όχι,	3=κάπως	4=ναι	5=πάρα πολύ
III. Κοινωνικές σχέσεις					
19. Τολμώ να εκφράσω την άποψή μου	1	2	3	4	5
20. Είμαι σε θέση να πάρω την πρωτοβουλία να επικοινωνήσω με άλλους	1	2	3	4	5
21. Δεν φοβάμαι να έχω διαφορετική γνώμη από τους άλλους	1	2	3	4	5
22. Τολμώ να μιλήσω για προσωπικές εμπειρίες μου	1	2	3	4	5
23. Έχω μερικούς καλούς φίλους	1	2	3	4	5
24. Είμαι σε θέση να εκφράζω θετικά συναισθήματα	1	2	3	4	5
25. Δεν είμαι απομονωμένος/η	1	2	3	4	5
26. Συμμετέχω σε κοινωνικές εκδηλώσεις και δραστηριότητες	1	2	3	4	5
27. Είμαι σε θέση να εκφράζω αρνητικά συναισθήματα	1	2	3	4	5
IV. Γαστρεντερικά συμπτώματα					
28. Δεν έχω στομαχικά προβλήματα	1	2	3	4	5
29. Δεν έχω εντερικά προβλήματα	1	2	3	4	5
30. Δεν έχω δυσκοιλιότητα	1	2	3	4	5
V. Σωματικές λειτουργίες					
31. Η αρτηριακή μου πίεση είναι φυσιολογική	1	2	3	4	5
32. Οι σφύξεις μου είναι φυσιολογικές	1	2	3	4	5
33. Η θερμοκρασία σώματός μου είναι φυσιολογική	1	2	3	4	5
VI. Διατροφικές συνήθειες					
34. Τρώω τρία γεύματα την ημέρα	1	2	3	4	5
35. Η διατροφή μου είναι υγιεινή και τακτική	1	2	3	4	5
36. Η ποσότητα των θερμίδων που προσλαμβάνω είναι υγιεινή και αρκετή	1	2	3	4	5
VII. Αντιρροπιστικές συμπεριφορές					
37. Δεν λαμβάνω διουρητικά	1	2	3	4	5
38. Δεν κάνω εμετούς μετά την πρόσληψη τροφής	1	2	3	4	5
39. Δεν κάνω υπερβολική γυμναστική	1	2	3	4	5

Ερευνητική εργασία

Παραγοντική Δομή και Ψυχομετρικές Ιδιότητες του Ερωτηματολογίου Κριτηρίων Ανάρρωσης από Διαταραχή Πρόσληψης Τροφής – εκδοχή 39 λημμάτων (CRED-39)

Δάφνη-Αλεξάνδρα Καραπαύλου, Δημήτρης Δικαίος, Στυλιανός Γαβριηλίδης, Μαρία Τζινιέρη-Κοκκώση, Φραγκίσκος Γονιδάκης

Α΄ Ψυχιατρική Κλινική, Αιγινήτειο Νοσοκομείο, Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, Αθήνα

ΙΣΤΟΡΙΚΟ ΑΡΘΡΟΥ: Παραλήφθηκε 4 Φεβρουαρίου 2021/Αναθεωρήθηκε 28 Φεβρουαρίου 2021/Δημοσιεύθηκε Διαδικτυακά 5 Αυγούστου 2021

ΠΕΡΙΛΗΨΗ

Οι Διαταραχές Πρόσληψης Τροφής (ΔΠΤ) είναι μια ομάδα ψυχικών διαταραχών που είναι δύσκολο να αντιμετωπιστούν. Στις έρευνες που διερευνούν την ανάρρωση ασθενών από ΔΠΤ, παρατηρείται ότι σπάνια διερευνάται η άποψη των ίδιων των ασθενών. Επιπροσθέτως, κάποιες μελέτες διαπιστώνουν ότι υπάρχει χάσμα μεταξύ της αντικειμενικής βελτίωσης των ασθενών, όπως μετριέται από τους ερευνητές, και της υποκειμενικής αίσθησης βελτίωσης, όπως αξιολογείται από τους ίδιους τους πάσχοντες. Ο στόχος της μελέτης ήταν να εξεταστεί η παραγοντική δομή και η αξιολόγηση των ψυχομετρικών ιδιοτήτων του ερωτηματολογίου Κριτηρίων Ανάρρωσης από Διαταραχή Πρόσληψης Τροφής (Criteria for Recovery from Eating Disorders - CRED), το οποίο αξιολογεί κριτήρια ανάρρωσης που αξιολογούνται ως σημαντικά από τον ασθενή. Το CRED και τα σταθμισμένα εργαλεία ποιότητας ζωής (WHOQoL-BREF) και συμπτωμάτων ΔΠΤ (EDE-Q) συμπληρώθηκαν από δείγμα 138 ασθενών με ΔΠΤ. Η διερευνητική παραγοντική ανάλυση οδήγησε στην αφαίρεση 13 από τα αρχικά λήμματα της CRED και παρήγαγε ένα εννοιολογικά συνεκτικό μοντέλο επτά παραγόντων: Εικόνα Εαυτού, Ψυχική Ευεξία, Κοινωνικές Σχέσεις, Γαστρεντερικά Συμπτώματα, Σωματικές Λειτουργίες, Διατροφικές Συνήθειες και Αντιρροπιστικές Συμπεριφορές. Ο δείκτης του Cronbach (άλφα) έδειξε ικανοποιητική εσωτερική συνοχή για το σύνολο του ερωτηματολογίου, καθώς και για καθέναν από τους επτά παράγοντες (α=0,77 έως 0,88). Η συσχέτιση του ερωτηματολογίου με τα WHOQoL-BREF και EDE-Q έδειξε ικανοποιητική συγκλίνουσα εγκυρότητα. Η ανάλυσή μας οδήγησε στο να προταθεί η εκδοχή 39 λημμάτων του CRED, το CRED-39, το οποίο φαίνεται να είναι έγκυρο και αξιόπιστο ερωτηματολόγιο για την αξιολόγηση της άποψης των ασθενών με ΔΠΤ σχετικά με την εξέλιξη της θεραπεία τους. Το CRED-39 μπορεί να χρησιμοποιηθεί τόσο στην έρευνα όσο και στην κλινική πρακτική για την διερεύνηση προσωπικών αναγκών σε σχέση με τη θεραπεία και την εξατομίκευση των παρεμβάσεων.

ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ: Διαταραχές πρόσληψης τροφής, οπτική του ασθενούς, εγκυρότητα, αξιοπιστία, παραγοντική ανάλυση.

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