

Utility of the Diagnostic Criteria for Psychosomatic Research in assessing psychological disorders in fibromyalgia patients

ARTICLE INFO

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Acronyms:

FM
fibromyalgia
DSM
Diagnostic and Statistical Manual of Mental Disorders
DCPR
Diagnostic Criteria for Psychosomatic Research
RA
Rheumatoid Arthritis
HADS-D
Hospital Anxiety and Depression Scale-depression
HADS-A
Hospital Anxiety and Depression Scale-anxiety
SF-36
36-Item Short Form Health Survey
SF-36_PC
36-Item Short Form Health Survey-physical components
SF-36_MC
36-Item Short Form Health Survey-mental components

Many studies have highlighted the importance of the psychological component associated with fibromyalgia (FM), a functional somatic syndrome characterized by chronic widespread pain (Di Tella et al., 2017; Sancassiani et al., 2017). In the face of this evidence, diagnostic criteria based on the Diagnostic and Statistical Manual of Mental Disorders (DSM), for example somatic symptom disorder, do not seem to be entirely suitable and clinically effective in detecting the psychological problems that are often “subclinical” (Häuser et al., 2015).

The Diagnostic Criteria for Psychosomatic Research (DCPR) were developed to diagnose those psychological disorders that could have a negative prognostic role in medical illnesses, and that are not detectable with the use of DSM-based standard psychiatric criteria (Fava et al., 1995).

The DCPR comprise five main clusters that include diagnostic criteria for twelve distinct syndromes: abnormal illness behavior (health anxiety, disease phobia, thanatophobia, illness denial), somatization (persistent somatization, functional somatic symptoms secondary to a psychiatric disorder, conversion symptoms, anniversary reaction), irritability (type A behavior, irritable mood), demoralization, and

alexithymia. Although the DCPR have demonstrated an excellent predictive validity for psychosocial functioning and treatment outcome in several medical settings, including oncology, dermatology, endocrinology, cardiology, and gastroenterology (Porcelli and Guidi, 2015), to date, only one preliminary study has examined the prevalence of the DCPR syndromes in patients with FM (Ghiggia et al., 2017).

Therefore, this study investigated (1) the prevalence of psychosomatic syndromes (DCPR-based diagnosis) in FM patients by comparing them with a group of Rheumatoid Arthritis (RA) patients, a “non functional” medical condition also characterized by pain and (2) the impact of the DCPR syndromes on the psychosocial functioning in FM patients.

Ninety-eight women with FM and 98 women with RA, balanced for age (51.4 (9.6) vs 53.7 (0.9) years, respectively) and years of education (11.8 (3.4) vs 11.3 (3.7) years, respectively), were assessed with the DCPR, the Hospital Anxiety and Depression Scale for depression (HADS-D) and anxiety (HADS-A) symptoms, and the 36-Item Short Form Health Survey (SF-36) that evaluates both the physical (SF-36_PC) and

Table 1Hierarchical multiple regression with physical and mental components of health-related quality of life (SF-36) as a dependent variable ($N = 98$).

	Physical component			Mental component						
	R ²	ΔR^2	B	SE B	β	R ²	ΔR^2	B	SE B	β
1	0.374***	0.374***				0.061*	0.061*			
Constant			67.28	5.07				55.38	7.61	
VAS			-4.97	0.66	-0.612***			-2.46	0.98	-0.247*
2	0.452***	0.078*				0.418***	0.357***			
Constant			71.34	5.09				70.98	6.43	
VAS			-4.46	0.64	-0.548***			-0.82	0.81	-0.083
HADS-D			-1.15	0.33	-0.320**			-2.06	0.41	-0.467***
HADS-A			0.27	0.31	0.078			-0.96	0.39	-0.229*
3	0.487***	0.034				0.515***	0.097**			
Constant			76.9	6.25				82.13	7.43	
VAS			-4.53	0.65	-0.557***			-0.95	0.77	-0.096
HADS-D			-1.04	0.35	-0.289**			-1.72	0.41	-0.390***
HADS-A			0.46	0.35	0.133			-0.93	0.41	-0.223*
DCRP_Abnormal illness behavior		-2.21	2.45	-0.073				-8.17	2.91	-0.220**
DCRP_Somatization		-4.44	3.57	-0.99				-9.99	4.24	-0.183*
DCRP_Irritability		-2.47	3.00	-0.074				1.62	3.57	0.040
DCPR_Demoralization		-3.70	2.49	-0.122				-6.73	2.96	-0.181*
DCPR_Alexithymia		2.23	2.51	0.069				4.57	2.99	0.116

* $p < 0.05$.** $p < 0.01$.*** $p < 0.001$.

VAS: Visual Analogue Scale for Pain; HADS-D/-A: Hospital Anxiety and Depression Scale-Depression/Anxiety subscale; DCPR: Diagnostic criteria for psychosomatic research.

the mental (SF-36_MC) components of health. All the patients were recruited at the University Hospital of Turin. The study was approved by the hospital ethics committee and all the participants provided written informed consent.

The results indicated a statistically significantly higher prevalence of psychosomatic syndromes in FM patients compared to RA patients; in particular, regarding the somatization (persistent somatization: 65.3% vs 15.3%, $p < 0.001$; functional somatic symptoms: 14.3% vs 0%, $p < 0.001$; conversion symptoms: 49% vs 7.1%, $p < 0.001$; anniversary reaction: 45.9% vs 18.4%, $p < 0.001$), the irritability (type A behavior: 58.2% vs 35.7%, $p = 0.003$, irritable mood: 40.8% vs 25.5%, $p = 0.033$), and the demoralization (50% vs 18.4%, $p < 0.001$) clusters. No differences (all $p > 0.05$) emerged in abnormal illness behavior (health anxiety: 16.3% vs 15.3%; disease phobia: 8.2% vs 2%; thanatophobia: 10.2% vs 4.1%; illness denial: 32.7% vs 20.4%) nor in alexithymia (33.7% vs 26.5%). The hierarchical linear regression indicated that even after controlling for pain intensity and depression and anxiety symptoms, the presence of abnormal illness behavior ($\beta = -0.220$; $p = 0.006$), somatization ($\beta = -0.183$; $p = 0.021$) and demoralization ($\beta = -0.181$; $p = 0.025$) were statistically significant contributing factors in explaining the negative impact on SF-36_MC. The final model explained 47% of the variance ($F(8,89) = 11.8$, $p < 0.001$) (Table 1).

Considered together, the data confirmed the clinical utility of the DCPR in detecting psychological disorders in FM patients. The results highlighted a very high prevalence of psychosomatic syndromes in FM patients, who displayed an average of more than 4 psychosomatic syndromes each, with every patient displaying at least one. Furthermore, psychosomatic syndromes indicated predictive validity with respect to a poor health-related quality of life in FM patients.

Contributions

Conceived and designed the study: V.T., A.G., L.C. Data collection: V.T., A.G., M.D.T. Data analyses: V.T., A.G. Interpretation of data: V.T., L.C., M.D.T. Wrote the paper: V.T., L.C. Results and paper discussed and final version approved by all authors.

Conflict of interest

Authors declare they have no conflict of interests.

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Valentina Tesio^a, Ada Ghiggia^{a,b,*}, Marialaura Di Tella^a, Lorys Castelli^a

^a Department of Psychology, University of Turin, Via Po 14, 10123 Turin, Italy

^b Clinical and Oncological Psychology, “Città della Salute e della Scienza” Hospital of Turin, Corso Bramante 88/90, 10126 Turin, Italy
E-mail address: ada.ghiggia@unito.it (A. Ghiggia).

* Corresponding author: Department of Psychology, University of Turin, Via Po 14, 10123 Turin, Italy.