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Clinical features and personality traits associated with psychological distress in systemic sclerosis patients

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Abstract

Objective: The aim of the present study was to identify certain clinical parameters and personality characteristics associated with various forms of psychopathology in systemic sclerosis (SSc) patients. **Methods:** Fifty-six SSc patients participated in the study, and 74 healthy participants served as controls. A wide range of clinical information was collected, and the following self-report instruments were used: General Health Questionnaire, Symptom Distress Checklist-90-R, Defense Style Questionnaire, Sense of Coherence (SOC) Scale, and Hostility and Direction of Hostility Questionnaire. **Results:** The odds of being assessed with a psychiatric diagnosis upon interview were 4.5 times greater among SSc patients compared with controls. Disease duration and lower rates of SOC were found to be associated with elevated symptoms of general psychological distress. Elevated symptoms of depression were strongly associated with esophageal involvement, hostility, and defense style used. Elevated symptoms of anxiety were mainly associated with arthritis-related painful conditions and SOC, while psychotic-like symptoms were only associated with age and a specific personality structure. **Conclusions:** SSc patients experience elevated symptoms of psychological distress. Several clinical parameters are associated with distress, but the role of various personality traits could not be disregarded. Early psychiatric assessment and intervention could prevent psychological distress in SSc patients.

Keywords: Systemic sclerosis; Psychological distress; Depression; Personality; Sense of coherence; Ego mechanisms of defense

Introduction

Systemic sclerosis (SSc) is a connective tissue disease in which inflammatory, fibrotic, and degenerative changes in the skin (scleroderma) lead to disfiguring skin thickening. It also affects multiple organ systems, particularly the musculoskeletal system, the lungs, the heart, the kidneys, and the gastrointestinal (GI) tract [1,2]. Although SSc cannot be cured, treatment of involved organ systems can relieve symptoms and improve function [2]. SSc has an impact on many aspects of an individual's life, including psychological well-being [3,4]. Medical interventions in the areas of discomfort, dysfunction, and distress could be important for the management of this progressive disease and the quality of the patient's life.

Although evidence suggests that depression contributes to the disability associated with chronic illnesses [5] and especially with rheumatic diseases [3,6], few studies have examined in detail the psychosocial sequelae of SSc [3]. Available data suggest that approximately half of SSc patients experience mild-to-severe depressive symptoms [3,7–9]. However, most of these studies have mainly focused only on depressive symptoms, whereas few detailed

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reports have investigated the extent to which various clinical, demographic, or personality features could be associated with psychological distress in SSc patients. It has been reported that in chronically painful rheumatologic conditions, personality factors or coping strategies may be better predictors of distress and depression than disease parameters [10]. One study has shown that psychological factors were the significant correlates of depressive symptoms in SSc patients [8], whereas Nietert et al. [11] reported that clinical features were also significantly correlated to depression. Nevertheless, it is not known if any studies to date have focused on clinical parameters that could be associated with a wide range of psychopathological conditions, such as symptoms of anxiety, depression, paranoid ideation, or psychosis in SSc patients. In addition, although recent evidence supports the protective impact of various psychological factors such as sense of coherence (SOC) [6], hostility, and defense styles [12] in rheumatic diseases, little attention has been given to the role that such parameters play in the development of various types of psychopathology in SSc patients.

Therefore, the aim of the present study was to identify the association between certain personality characteristics and clinical parameters of disease with various forms of psychopathology in these patients. For these purposes, a wide range of clinical, psychological, and demographic parameters were collected. Screening and dimensional instruments for the detection of various psychological distress symptoms were used, while hostility features [13], defense styles [14], and SOC [15] were assessed in order to identify the structural personality characteristics of SSc patients and define their relationship to psychiatric morbidity.

Patients and methods

Participants

A consecutive sample of 56 SSc outpatients with years of attendance at the outpatient clinic of the Rheumatology Department of Ioannina Medical School Hospital, Greece, participated in the study. The University General Hospital of Ioannina provides secondary and tertiary care for a population of approximately 350,000 people. Patients recruited to the study were insured in the state insurance system. Diagnosis of SSc was confirmed based on the American College of Rheumatology criteria [16], and diagnosis of scleroderma subtypes was confirmed via LeRoy's criteria [17]. Patients with localized scleroderma such as morphea or linear scleroderma were excluded from the study.

Since the focus of the present study was the identification of protective factors for psychological distress in SSc patients, it was important to distinguish the factors that might be associated with psychological distress in general from those that might be associated with distress among the SSc patients. Initially, 56 participants randomly selected from the hospital's staff list participated in the study as "healthy" controls. Since the age of SSc patients was higher than that of controls, an additional sample of 18 participants (patients' relatives) has been added in our control group. Thus, in the present study, 74 participants who were not manifesting problems requiring medical or psychiatric intervention or who were not receiving any medication at the time of investigation served as "healthy" controls. The demographic profiles of SSc patients and controls are presented in Table 1. All participants were able to read and write in Greek, and no one had a history of psychotic illness, current alcohol and/or drug abuse, or dementia.

Table 1
Demographic profiles of SSc patients and healthy controls

Variables	Value		*P* value
	SSc patients	"Healthy" controls	
Number of participants	56	74	
Female/Male (*n*)	51/5	65/9	NS[a]
Age (years)			NS[b]
Range	25–70	23–72	
Mean±S.D.	52.6±12.4	49.8±10.9	
Family status: married, *n* (%)	38 (67.9)	57 (77.9)	NS[a]
Educational level, *n* (%)			.001[a]
Primary school (up to the 6th grade)	14 (25.0)	4 (5.4)	
Basic lower education (7th–8th grade)	7 (12.5)	2 (2.7)	
High school education [gymnasium] (9th grade)	10 (17.8)	4 (5.4)	
High school education (10th–11th grade)	6 (10.8)	14 (18.9)	
High school education [lycee] (12th grade)	8 (14.3)	19 (25.7)	
University education (at least some college/university)	11 (19.6)	31 (41.9)	

NS, nonsignificant.
[a] Chi-square test.
[b] Two-tailed *t* test.

Procedure and study instruments

All the procedures that followed were in accordance with the ethical standards on human experimentation (World Medical Association Helsinki Declaration) and with the local hospital's ethics committee. After the participants received a complete description of the study, the voluntary nature of their participation, and the confidentiality of the survey, all agreed to participate and a written informed consent was obtained. This high participation rate may be due to a good doctor–patient relationship, taking into consideration that all patients had been followed up by the same experienced rheumatologist throughout the duration of the disease. Clinical data and lab results, as well as chart reviews, were obtained prospectively using a standardized data collection form along with a request for demographic