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The relationship between temperament and character in conversion disorder and comorbid depression

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Abstract

Aims: The aim of this study was to compare conversion disorder patients with healthy controls in terms of temperament and character, and to determine the effect of these characteristics on comorbid depression, based on the idea that conversion disorder patients may have distinctive temperament and character qualities.

Methods: The study involved 58 patients diagnosed with conversion disorder, based on the DSM-IV diagnostic criteria, under observation at the Bakırköy Psychiatric and Neurological Disorders Outpatient Center, Istanbul. The patients were interviewed with a Structured Clinical Interview (SCID-I) and 57 healthy volunteers, matched for age, sex and education level, were interviewed with a Structured Clinical Interview for people without a psychiatric disorder (SCID-I/NP). All the participants completed a sociodemographic form, the Hamilton Depression Rating Scale, the Hamilton Anxiety Scale and the Temperament and Character Inventory.

Results: The conversion disorder patients displayed more harm avoidance ($P<.001$), more impulsivity ($P<.01$) and more sentimentality ($P<.01$) than the healthy controls, but were less persistent ($P<.05$). In terms of character qualities, conversion disorder patients had high self-transcendence ($P<.05$), but were inadequate in terms of self-directedness ($P<.001$) and took on less responsibility ($P<.05$) than the healthy controls.

Conclusion: Conversion disorder patients are significantly different from healthy controls on temperament and character measures of harm avoidance, persistence, self-transcendence and self-directedness.

1. Introduction

Conversion disorder is the term used to describe physical function loss or variation that cannot be explained by a general medical or neurological condition and that substitutes for a psychological need or conflict [1]. Conversion disorder is listed under the somatoform disorders cluster, and presents a dysfunction of the neural system in the motor areas, sensory areas or, less frequently, the areas involved with consciousness. It is the result of an unresolved psychological conflict being brought to the level of consciousness through a function loss in an organ that is associated with the dynamics of the conflict [2-4]. It has been reported that 1%–3% of all the outpatients at mental health clinics suffer from conversion disorder [5].

Temperament, character and personality are distinct concepts. Temperament is the inclination to respond automatically to certain stimuli, and its structure is determined at birth. Some temperament traits show little or no change with increasing age. Character consists of the relatively changeable, objectively observable behaviors and subjectively reportable internal experiences of an individual. It includes the reaction and response behaviors of the individual, which have been developed, consciously or unconsciously, to maintain reciprocal relationships with the environment throughout life. Personality, according to structural theory, appears to be the joint product of genetically derived temperament and acquired intelligence, and develops until maturity in adulthood [6-8].

Cloninger has developed a general psychobiological model to describe the structure and development of personality [6,7]. The model includes four dimensions of temperament (novelty seeking, harm avoidance, reward dependence and persistence), which are assumed to be independent, generally stable throughout life, unaffected by

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sociocultural influences and inclusive of preconceptual biases at the level of perceptual memory, and three dimensions of character (self-directedness, cooperativeness and self-transcendence). These dimensions of character are assumed to reach maturity during adulthood and to influence personal and social activity through the acquisition of insight into the concepts of self [9].

Conversion disorder comorbidity with any psychiatric disorder is a common phenomenon. A search of the MEDLINE literature database yielded no studies on the temperament or character qualities of conversion disorder patients. Studies of the temperament and character qualities of those with conversion disorder within the general population are expected to contribute to the accumulation of knowledge in the field. Also, conversion disorder has a high level of comorbidity with major depression or depressive symptoms (17%–44%) [1,10,11]. Based on the idea that conversion disorder patients might have distinctive temperament and character qualities, the aim of this study is to compare the temperament and character qualities of conversion disorder patients, with and without comorbid depression, with those of healthy controls.

2. Methods

2.1. Sample

This study was conducted at the Outpatient Treatment Center for nonpsychotic patients, Bakırköy Research and Training Hospital for Psychiatric and Neurological Diseases, Istanbul, Turkey. A total of 216 patients with psychiatric complaints were approached over a six-month period. Ninety-four had been diagnosed with conversion disorder, according to the criteria of the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV) [12,13]. Twenty-five of these declined to participate. Exclusion criteria were addiction to any substance; organic disorders such as diabetes, hypertension, delirium, mental retardation, dementia or any other organic disorder; and comorbid psychiatric disorders. All participants were evaluated with the Hamilton Depression Rating Scale (HAM-D) [14–16] and the Hamilton Anxiety Rating Scale (HAM-A) [17,18]. Eleven patients met the exclusion criteria: seven had comorbid panic disorder and four had comorbid post-traumatic stress disorder. Of the remaining 58 consecutive conversion disorder patients were selected; of these, 32 patients had no anxiety or depressive disorders and 26 patients had depression (HAM-D score > 14). The conversion disorder patients who had comorbid depression used antidepressants. Written informed consent was obtained from all participants. The ethics committee of the institution approved the study.

The final conversion disorder group consisted of 52 women (89.7%) and six men (10.3%). The mean age was 31.07 years (range = 19–55). Most (74.1%) were married, 5.2% were divorced or widowed and the remainder were single. Thirty-one percent had children. More than half (55.2%) had attended primary school, 24.1% had attended middle school and 20.7% had attended high school. Just over half (51.7%) were smokers, 48.3% were nonsmokers and 3.4% used alcohol.

Fifty-seven age- and sex-matched healthy controls were evaluated with a Structured Clinical Interview (SCID-I/NP) [19,20]. Fifty-three (93%) were female and four (7%) were male. The mean age was 32.5 years (range = 19–56). Most (64.9%) were married, 10.5% were divorced or widowed and the remainder were single. Thirty percent had children. Over half (52.6%) had attended primary school, 28.1% had attended middle school and 19.3% had attended high school. Less than half (40.4%) were smokers, 56.1% were non-smokers and 3.5% used alcohol.

Temperament and character qualities were analyzed by first dividing the sample into Patient (Pt) and Control (C) groups, then further dividing the Pt group into two subgroups: Conversion (Con) and Conversion with comorbid depression (ConD).

2.2. Assessment tools and application

All participants completed a sociodemographic form, the SCID-I (Pt group) or SCID-I/NP (C group), the Temperament and Character Inventory, and the HAM-D and HAM-A Rating Scales.

2.2.1. Sociodemographic form

This data form, which was developed by the authors, covered the following items: sex, age, education level, number of children, marital status, substance use. History and frequency of conversion symptoms, dominant conversion symptoms, and attitude of the family toward conversion symptoms and history of physical disease were determined in Pt group. Patients also scored the emotional severity of the stress factors prior to the first and the last pseudoseizures on a 100-point scale.

2.2.2. SCID-I

The SCID-I clinical interview form is tailored to the axis I disorders of the DSM-IV criteria. It was developed by First et al. in 1987 as a clinical diagnosis tool [12] and was adapted for the Turkish population in 1999. The validity and confidence intervals for the Turkish population were published by Çorapçıoğlu et al. [13].

2.2.3. SCID-I/NP

The SCID-I/NP is a semi-structured clinical interview tool developed to exclude DSM-III-R diagnoses [19]. The Turkish adaptation was conducted by Sorias et al. [20].

2.2.4. Hamilton Depression rating scale

The HAM-D, developed by Hamilton in 1960, is the most commonly used scale for measuring the severity of depressive symptoms. Williams developed a new form in 1978 to improve the interrater reliability (Structured Interview for Hamilton Depression Scale-21) [14]. The