

Evaluation of personality traits in social phobia patients

Avaliação de traços de personalidade em pacientes com fobia social

MARIÂNGELA GENTIL SAVOIA¹, TITO PAES DE BARROS NETO¹, ANDREA MACHADO VIANNA¹, MÁRCIO BERNIK¹

¹ Anxiety Clinic, Institute of Psychiatry, Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo (IPq-HCFMUSP), São Paulo, SP.

Received: 4/17/2009 – Accepted: 7/29/2009

Abstract

Background: The symptoms of personality disorders (Axis II) commonly found in social phobia patients overlap highly with the symptoms that typify the Axis I disorder and are thus linked to diagnostic process in symptomatic patients. **Objective:** The aim of the present study was to evaluate personality traits of social phobia patients. **Method:** One hundred and eight subjects were selected, from 18 to 65 years of age, who fulfilled the criteria of social phobia. The Cloninger's Temperament and Character Inventory (TCI) was applied. **Results:** The social phobia patients differed in normalized data in the following personality traits: Novelty Seeking, Harm Avoidance, Persistence, Self Directedness, and Self-Transcendence. **Discussion:** These findings point to a high overlap between Cloninger's description of the observed predominant personality traits and DSM-IV Axis I symptoms description for social phobia.

Savoia MG, et al. / Rev Psiq Clín. 2010;37(2):57-9

Keywords: Personality traits, social phobia, temperament, character.

Resumo

Contexto: Os sintomas de transtornos de personalidade (Eixo II) comumente encontrados em pacientes com fobia social se sobrepõem com os sintomas que descrevem o transtorno pelo Eixo I. **Objetivo:** O presente estudo teve por objetivo avaliar traços de personalidade em pacientes com diagnóstico de fobia social. **Método:** Cento e oito sujeitos com idade entre 18 e 65 anos foram avaliados pelo Inventário de Temperamento e Caráter de Cloninger. **Resultados:** Os pacientes com fobia social diferiram dos dados normativos nos seguintes traços de personalidade: Busca à Novidade, Fuga de Danos, Persistência, Autodirecionamento e Autotranscendência. **Conclusão:** Esses achados apontam para uma sobreposição entre a descrição dos traços de personalidade citados por Cloninger e a descrição dos sintomas de fobia social do DSM-IV, Eixo I.

Savoia MG, et al. / Rev Psiq Clín. 2010;37(2):57-9

Palavras-chave: Traços de personalidade, fobia social, temperamento, caráter.

Introduction

Social phobia is usually associated to personality abnormalities, such as intense shyness. Conversely, the symptoms of personality disorders (Axis II) commonly found in social phobia patients overlap highly with the symptoms that typify the Axis I disorder and are thus linked to diagnostic process in symptomatic patients¹⁻⁴. On the other hand, dimensional evaluation of personality traits is reported to be more stable over time⁵ which would be useful to evaluate subjects with a current Axis I disorder diagnosis.

Among dimensional evaluation of personality traits, the Cloninger's Temperament and Character Inventory (TCI)⁶⁻⁷ provides a theoretically based, systematic approach to measure personality dimensions, which can be experimentally tested. It describes seven independent personality dimensions. Four of them, Novelty Seeking (NS), Harm Avoidance (HA), Reward Dependence (RD) and Persistence (P), are considered temperament dimensions. The other three items are considered character dimensions, Self-Directedness (SD), Cooperativeness (C), Self-Transcendence (ST).

The TCI has been used in previous studies in Social Phobia patients. One of them⁸ compared TCI personality profile of 13 social phobia patients to normal volunteers, reporting increased avoidant and introverted temperament (HA) traits. Accordingly, Pélissolo *et al.*⁹ also reported higher HA scores and lower P, SD, C and ST scores in 31 subjects with social phobia, also suggesting an anxious and avoidant temperament and an immature character. Kim and Hoover¹⁰ also found a significant HA increase in 47 patients with social phobia compared to the control group. Social phobia patients were character-

ized by displaying anticipatory anxiety, low tolerance to frustrations and an intense dependence on external gratifications¹¹.

The aim of this study was to evaluate the personality traits of social phobia patients.

Method

One hundred and eight subjects, from spontaneous demand to our service, ranging from 18 to 65 years of age (mean \pm sd, $34 \pm 9,46$ y), being fifty six males and fifty two females were selected for this study. They met the diagnostic criteria for social phobia after SCID IV interview¹². Inclusion criteria were a score of at least 4 in the severity item of the Clinical Global Impression scale (CGI)¹³, a score of 17 or more in the Social Avoidance and Distress scale (SAD)¹⁴, and a score of 24 or more in the Fear of Negative Evaluation scale (FNE)¹⁴. The cut-off points on SAD and FNE were defined by the authors. The raters were psychiatrists with experience in clinical trials. Given the long study duration and the existence of double placebo condition patients with a DSM-IV diagnosis of depression, the patients BDI score ≥ 30 ¹⁵, or a 21-item HAMD score ≥ 21 ¹⁶, or those who reported suicidal ideation were excluded from entering the treatment phase of the study. The patients who had an other psychiatric diagnosis or organic disease were not included in the study.

The Portuguese translation of the TCI¹⁷ was applied to the patients included and those who signed the free and informed consent.

This study was evaluated by Committee for Ethic in Research of the institution where the research was carried out.

Multivariate analysis (Hotelling's T^2 statistics¹⁸) were used to compare TCI scores from our subjects to the normative data. Confidence intervals were then established for the seven variables (TCI scores) in order to determine which variable(s) accounted for the differences.

Results

The 108 social phobia patients TCI scores differed from normalized data (T^2 Statistic: 714,13; $p < 0,001$; Table 1). Confidence intervals (95%) for the seven variables showed differences between subjects and normalized data for NS (subjects lower), HA (subjects higher), P (subjects lower), SD (subjects lower) and ST (subjects lower) (Table 2).

Table 1. Social phobia patients TCI scores X normalized scores

Variable	Normal	Patients	SD
NS	19,2	15,9	5,3
HA	12,6	25,0	5,5
RD	15,5	14,8	3,6
P	5,6	4,5	1,8
SD	30,7	23,2	8,6
C	32,3	32,6	15,2
ST	19,2	12,6	6,1

T^2 Statistic 714,13; P-value $< 0,001$; N = 108.

NS: Novelty Seeking; HA: Harm Avoidance; RD: Reward Dependence; P: Persistence; SD: Self-Directedness; C: Cooperativeness; ST: Self-Transcendence.

Table 2. Confidence intervals for the seven variables of the subjects population

Variable	Confidence interval		
	Inferior	Superior	Normal
NS	13,87	17,96	19,2
HA	22,82	27,12	12,6
RD	13,44	16,24	15,5
P	3,74	5,18	5,6
SD	19,90	26,57	30,7
C	26,68	38,53	32,3
ST	10,24	14,98	19,2

N = 108.

NS: Novelty Seeking; HA: Harm Avoidance; RD: Reward Dependence; P: Persistence; SD: Self-Directedness; C: Cooperativeness; ST: Self-Transcendence.

Discussion

The present study results suggest that social phobia is not fully understood as an Axis I disorder. Besides high comorbidity with Axis II disorders¹⁻³, we also observed a high overlap between the description of Axis I symptoms, according to DSM IV, and the description of the observed deviations in TCI dimensions.

In our sample social phobia patients scored below average in NS, SD, P and ST and above average on HA. Kim and Hoover¹⁰ also found a significant HA increase in 47 patients with social phobia compared to the control group.

According to Cloninger's theory, NS is a heritable bias in the activation or initiation of behaviors such as exploratory activity in response to novelty and active avoidance of frustration. Higher scores inversely correlate to rigidity and introversion SD is an acquired character trait, formulated with different aspects such as self-determination, responsibility for one's own choice of control and

commitment to a particular goal or purpose. Lower scores correlate with blaming on others, non-objective goals, apathy and self-refusal. In the same way, P is described as perseverance in responding to certain ways despite frustration and fatigue. ST refers generally to identification with everything conceived as essential and consequential parts of a unified whole.

The one item that scored above average was Harm-Avoidance. According to Cloninger's theory, HA is also a heritable temperament trait. Higher scores relate to behavioral inhibition, pessimistic worry and passive avoidance behaviors such as fear of uncertainty and shyness.

These characteristics match clinical descriptions of social phobia patients as subjects that avoided being on the spotlight in any situation, acting according to self imposed, very rigid behavioral rules which, in theory, controls anticipatory anxiety due to fear of the unknown and shyness. Taken together, these traits lead to a poor negative quality of life which is also impacted by an inability to set up clear and objective goals. Considering that social phobia is a chronic evolution disorder, the overlapping of the diagnostic criteria of Axis II, mainly the avoidant personality disorder appears to be related to clinical gravity⁴.

The present study findings are in full accordance with Martensdottir *et al.*¹¹, which, despite of a small sample, also observed that TCI measures personality deviations were highly related to the DSM IV diagnosis of social phobia. The results also partially replicate Pélissolo *et al.*⁹ findings suggesting an anxious and avoidant temperament and an immature character.

Considering that the sample is from a service and research center therefore it is a convenience sample, then the present study results should be generalized with caution, and to reply this investigation in other study centers, may increase the external validity of the data.

In conclusion, the present study data suggests that personality traits usually found in social phobia patients highly correlates to the descriptive symptoms of the Axis I disorder described in the diagnostic manuals.

This study was supported by Fapesp (Research Foundation of the state of São Paulo) grant n 97/11285-1.

References

- Alnaes R, Torgersen S. The relationship between DSM-III symptom disorders (Axis I) and personality disorders (Axis II) in an outpatient population. *Acta Psychiatr Scand.* 1998;78:485-92.
- Sanderson WC, Wetzler S, Beck AT, Betz F. Prevalence of personality disorders among patients with anxiety disorders. *Psychiatry Res.* 1994;51:167-74.
- Barros Neto TP, Lotuto Neto F. Transtornos de personalidade em pacientes com fobia social. *Rev Psiq Clín.* 2006;33:5-9.
- Barros Neto TP. Fobia social: perfil clínico, comorbidade e diagnóstico diferencial. *Rev Psiq Clín.* 2000;27:309-15.
- McCrae RR, Costa PT. Personality trait structure as a human universal. *Am Psychol.* 1997;52:509-16.
- Cloninger CR, Przybeck TR, Svrakic DM, Wetzel RD. The Temperament and Character Inventory (TCI). A guide to its development and use. St. Louis, MO: Center of Psychobiology of Personality, Washington University; 1994.
- Cloninger CR, Svrakic DM, Przybeck TR. A psychobiological model of temperament and character. *Arch Gen Psychiatry.* 1993;50:975-90.
- Faustino AF. Alterações imunes subsequentes à indução de estresse agudo em pacientes com fobia social e indivíduos sem patologias psiquiátricas. Tese de doutorado apresentada ao Departamento de Psiquiatria da Faculdade de Medicina da Universidade de São Paulo; 2004.
- Pélissolo A, André C, Pujol H, Yao SN, Servant D, Braconnier A, et al. Personality dimensions in social phobics with or without depression. *Acta Psychiatr. Scandinavica.* 2002;105:94-103.
- Kim SW, Hoover KM. Tridimensional personality questionnaire: assessment in patients with social phobia and a control group. *Psychol Rep.* 1996;78:43-9.

11. Marteinsdottir I, Tillfors M, Furmark T, Anderberg UM, Ekselius L. Personality dimensions measured by the Temperament and Character Inventory (TCI) in subjects with social phobia. *Nord J Psychiatry*. 2003;57:29-35.
12. Spitzer RL, Williams JBW, Gibbon M. Structured Clinical Interview for DSM-III (R): Non-Patient Version (SCID-NP-V). New York State Psychiatric Institute; 1987.
13. Guy W. ECDEU Assessment manual for psychopharmacology, revised. NIMH Publishers, Bethesda; 1976.
14. Watson D, Friend R. Measurement of social-evaluation anxiety. *J Consult Clin Psychol*. 1969;33:448-57.
15. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. *Arch Gen Psychiatry*. 1961;4:53-63.
16. Hamilton M. A rating scale for depression. *J Neurol Neurosurg Psychiatry*. 1960;23:56-62.
17. Fuentes D, Tavares H, Camargo CHP, Gorenstein C. Inventário de Temperamento e de Caráter de Cloninger – Validação da versão em Português. In: Gorenstein C, Andrade LHSG, Zuardi AW (eds.). *Escala de Avaliação Clínica em Psiquiatria e Psicofarmacologia*. São Paulo: Lemos; 2000. p. 363-76.
18. Johnson RA, Wichern DW. *Applied multivariate statistical analysis*. New Jersey: Prentice Hall; 2001.