Trait Anxiety as risk and moderator factor of severity symptoms in schizophrenia and panic disorder: a cross sectional case-control study

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Background

Some personality dimensions can be taken to represent a proneness toward developing mental disorders. Recent studies have shown neuroticism strongly correlation with general distress/negative affectivity symptoms as depressed mood, anxious mood and worry[1]. Other traits as harm avoidance are related to anxiety disorders[2] and schizotypal traits have been associated with schizophrenia[3].
Trait anxiey (T-Anxiety) is the tendency to experience state anxiety in response to the anticipation of a threat. People with a high level of trait anxiety experience more intense degrees of state anxiety to specific situations than most people do and experience anxiety toward a broader range of situations or objects than most people. We can hypothesize following diathesis-stress model that trait anxiety may predispose psychiatric disorders development. Some studies have described high levels of state and trait anxiety in anxiety disorders, but there is no evidence about the role of these variable as risk factor to develop specific mental disorders.

Aims

The aim of present study is to compare trait anxiety levels in clinical population and healthy controls and to analyze the association between trait anxiety and schizophrenia and panic disorder diagnosis.

Methods

A consecutive sampling was realized in mental health services of the Parc de Salut Mar. We recruited 51 patients who met schizophrenia diagnostic criteria. 27 subjects fullfilled criteria for panic disorder based on Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). The fourth group was formed 31 healthy controls. Clinical and psychopatological interview was performed by clinicians using Structured Clinical Interview for DSM Disorders (SCID-I) and State-Trait Anxiety Inventory (STAI-R). We also included Panic and Agoraphobia Scale (PAS) and Positive and Negative Syndrome Scale (PANSS) in order to measure symptom severity in panic and schizophrenia groups. ANOVA, Odds Ratio, and correlation analysis were realized with SPSS-18 statistical software.

Results

There are significant differences between groups in T-Anxiety levels. Post hoc analysis show significant higher level of T-Anxiety in schizophrenia group and panic disorder group than in healthy subjects (Table 1, Figure 1). There is no significant differences between schizophrenia and panic disorder groups in T-Anxiety scores. Odds ratio revealed significant higher rates of schizophrenia and panic disorder in subjects with trait anxiety scores over percentile 75 (Table 2) than in those with low scores (percentile < 75). We find significant correlations between trait anxiety and panic attack severity in panic disorder and also between T-Anxiety and positive psychotic symptoms in schizophrenia group (Table 3)..

Table 1. Group comparisons in T- Anxiety scores.

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4818,095	2	2409,048	26,006	,000**

Multiple Comparisons. Bonferroni Post Hoc analysis						
Groups	group	Mean Difference (I-J)	Std. Error	Sig	95% Confidence	Interval
Schizophrenia (Scz)	P.D	-1,63415	2,38544	1,000	Lower Bound	Upper Bound
	Control	14,67620*	2,33532	,000**	-7,4488	4,1806
Panic Disorder (P.D)	Scz	1,63415	2,38544	1,000	8,9837	20,3687
	Control	16,31034*	2,57396	,000**	-4,1806	7,4488
Control	Scz	-14,67620*	2,33532	,000**	10,0361	22,5846
	P.D	-16,31034*	2,57396	,000**	-20,3687	-8,983

**. The mean difference is significant at the 0.01 level.

Table 2. T- Anxiety OR.

Panic Disorder/control	Estimate	95% Confidence Interval
Odds Ratio	21,875	5,4386 87,9858
Mantel-Haenzel	4,7697	p =,00000** (Association)
Chi Corrected	4,5031	p =,00001**
Schizophrenia/control	**Estimate**	**95% Confidence Interval**
Odds Ratio	17,0455	4,8279 60,1805
Mantel-Haenzel	4,8612	p =,00000** (Association)
Chi Corrected	4,6202	p =,00000**

**. OR is significant at the 0.01 level.

Figure 1. T- Anxiety Means Plot.

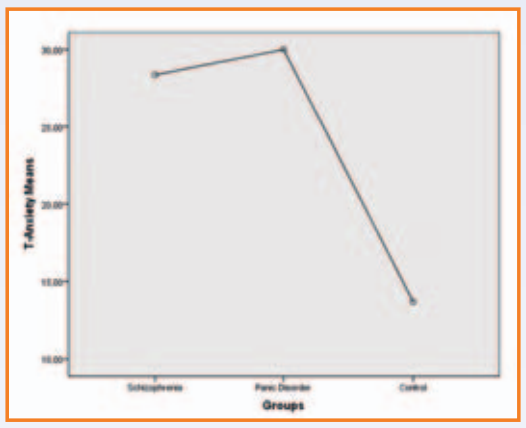

Table 3. T-Anxiety and symptoms severity. Correlations.

Schizophrenia group		T-Anxiety
PANSS_P	Pearson Correlation	0,441
	Sig. (2-tailed)	,004**
	N	41
PANSS_GP	Pearson Correlation	0,617
	Sig. (2-tailed)	,000**
	N	41
Panic Disorder group		**T-Anxiety**
PAS_Total	Pearson Correlation	0,51
	Sig. (2-tailed)	,015*
	N	22
PAS_Panic Attacks	Pearson Correlation	,547**
	Sig. (2-tailed)	,008**
	N	22

**. Correlation is significant at the 0.01 level.

Conclusions

The results sugest that trait anxiety can be consider a relevant variable to take into account as a factor involved in psychiatric symptoms severity and development. A longitudinal aproach is necessary to estimate risk measures, and to explore relative weight among other potencial risk factors.

References

1. Watson D, Naragon-Gainey K. Personality, Emotions, and the Emotional Disorders. Clin Psychol Sci. 2014 Jul 1;2(4):422-442.
2. Pelissolo A, Moukheiber A, Mallet L. Obsessive-compulsive disorders and anxiety disorders: A comparison of personality and emotionality patterns. Psychiatry Res. 2015 Oct 30;229(3):695-701.
3. Nelson MT, Seal ML, Pantelis C, Phillips LJ. Evidence of a dimensional relationship between schizotypy and schizophrenia: a systematic review. Neurosci Biobehav Rev. 2013 Mar;37(3):317-27.

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