

# Temperament, character and neurological soft signs in patients with schizophrenia and unaffected siblings

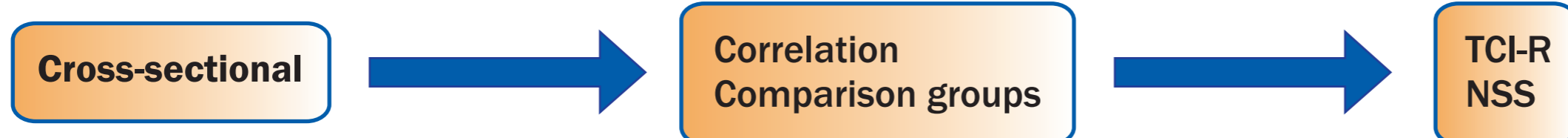
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## Objectives



## Method



## Subjects

**All subjects:** 25 – 50 years old. No somatic or neurological illness neither abuse substances disorder. Volunteer participation. No affective disorders.  
**Patients:** Schizophrenia by DSMIV, 5- 15 years of illness, treatment with atypical antipsychotics, clinic stability in the last 6 months.  
**Siblings:** No psychiatric antecedents.  
**Controls:** No personal/familiar antecedents of mental illness. Paid participation.

## Results

Table 1. Sociodemographic data

	By group						Total			
	Patients (n=22)		Siblings (n=20)		Controls (n=32)		Total(n=68)		Test	p
	Media	DT	Media	DT	Media	DT	Media	DT		
Gender	15H 7M		8H 12M		13H 13M		36H 32M		3,02 (chi)	0,22
Age	38,77	6,13	42,05	10,5	37,6	7,74	39,25	8,25	F=1,67	0,19
Studies	9,18	2,56	11,32	2,79	12,65	2,06	11,13	2,83	F=12,07	0,01
positive PANNS	10,1									
negative PANNS	13,2									
GAF	68,5									

Table 2. ANOVA -Comparison between groups

	Patients		Siblings	
	Controls	Siblings	Controls	Patients
Harm Avoidance	23,0*	NS	NS	NS
Harm	-4,4*	NS	-4,2*	NS
Fatigue	8,2*	5,2*	-5,2*	NS
Self-direction	-23,6*	NS	-15,5*	NS
Determination	-5,2*	NS	-4,2*	NS
NSS	12,5*	7,3*	5,2*	-7,3*
Coordination	2,4*	1,7*	NS	-1,7*
Sensorial	1,4*	NS	NS	NS
Integration	3,1*	NS	3,4*	NS

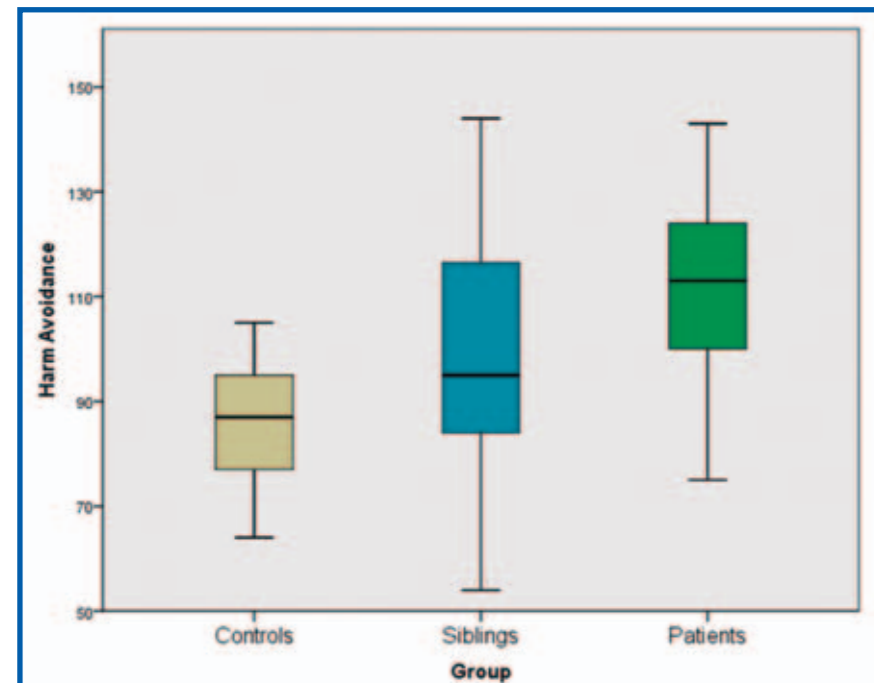
\*P<0,05

Table 3. Pearson Correlation. Neurological soft signs – Temperament and character

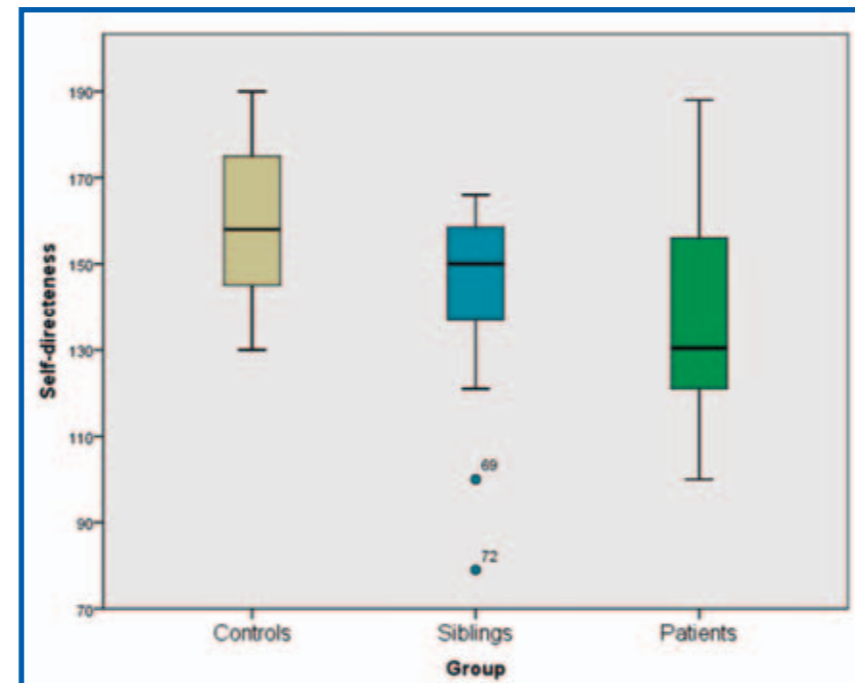
	Neurological Soft signs
Harm Avoidance	0,3*
Autodirection	-0,5*

\*Correlation significance

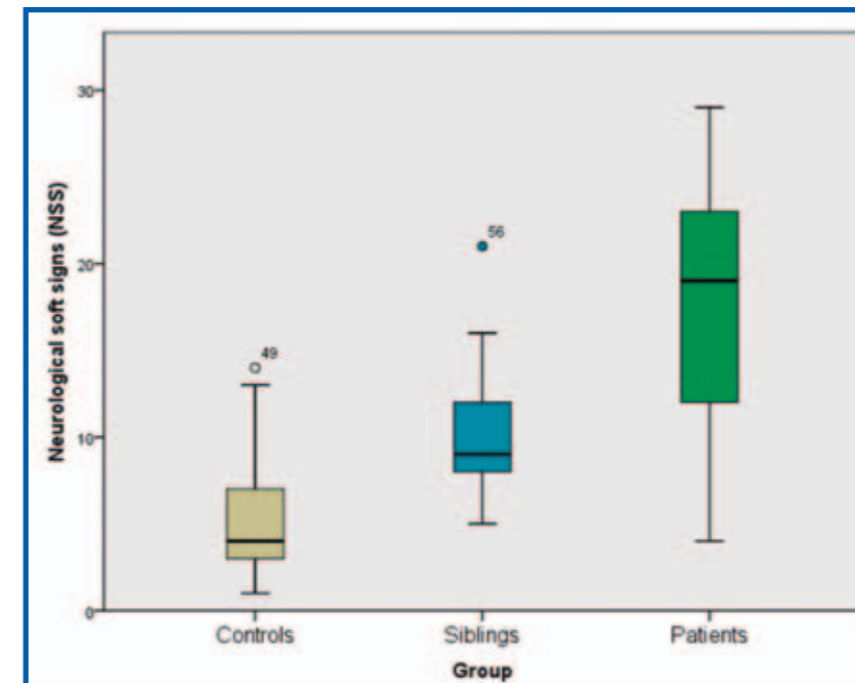
Graphic 1. Harm Avoidance - Anova



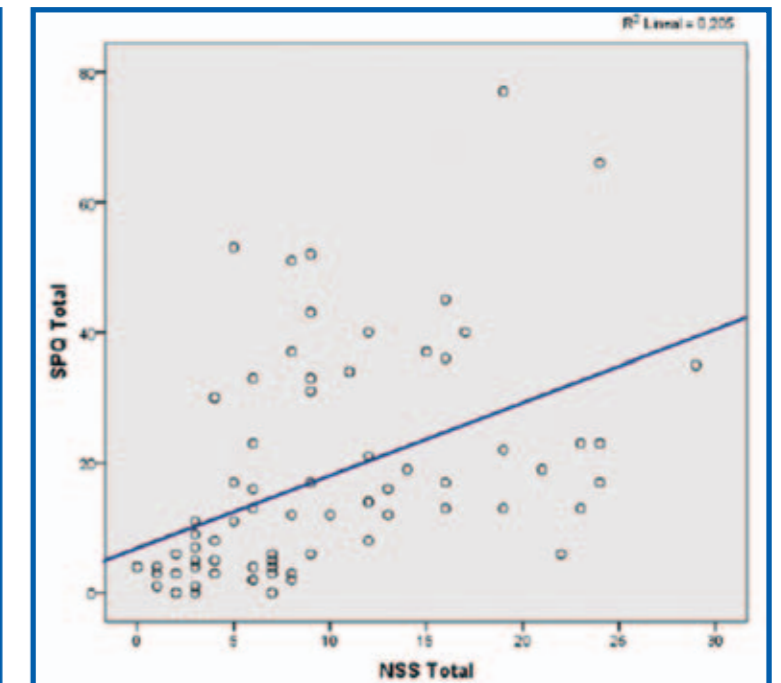
Graphic 2. Selfdirectness - Anova



Graphic 3. Neurological softs signs- Anova



Graphic 4. Pearson Correlation. Neurological soft signs and personality



## Conclusions

- Our study replicates that patients with Schizophrenia and unaffected siblings have high Harm Avoidance and low self-directness, comparing to healthy controls<sup>(1,2)</sup>. Adding to this evidence, our study brings that these findings are correlated with increased presence of neurological soft signs.
- A positive significant correlation exists between Harm Avoidance and neurological soft signs. A negative significant correlation exists between persistence, self-directness, cooperativeness and neurological soft signs.

## Bibliography

- Matthew J. Smith, C. Robert Cloninger, Michael P. Harms and John G. Csernansky. Temperament and Character as Schizophrenia-Related Endophenotypes in Non-psychotic Siblings. Schizophr Res. 2008 September; 104(1-3): 198–205.
- Robert W. Buchanan and Douglas W. Heinrichs. The Neurological Evaluation Scale (NES): A Structured Instrument for the Assessment of Neurological Signs in Schizophrenia. Psychiatry Research. 1988 21, 335-350.