


How back pain intensity relates to clinical and psychosocial factors in patients with idiopathic scoliosis

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- Pain prevalence in AIS (27.5% - 72%)
- No relationship has been found between spinal pain and different radiological parameters:
 - curve magnitude and pattern
 - coronal trunk alignment
 - presence of relevant findings in MRI

OBJECTIVE

To analyze psychosocial, family and quality of life differences in patients with IS as a function of pain intensity.

- **Prospective** multicenter cross-sectional study of consecutive patientes recruited in 3 centers in Spain
- **Inclusion criteria:**
 - IS
 - age 12 - 40 years
 - Cobb $\geq 30^\circ$
 - No previous surgery

Questionnaires:

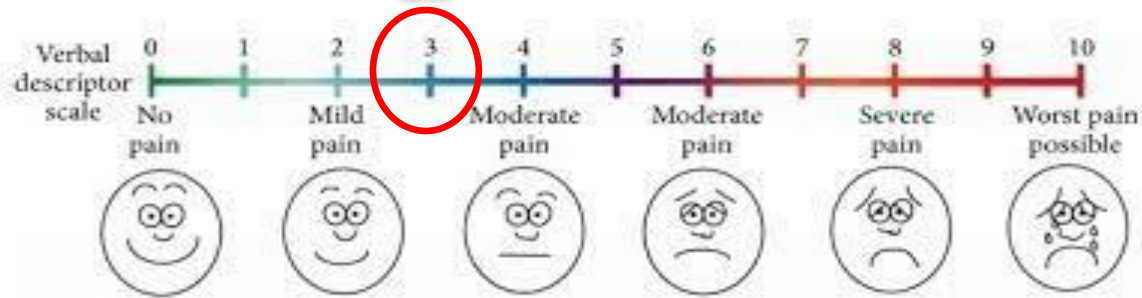
- NRS
- TSK-11
- SRS-22r
- HADS (Hospital Anxiety and Depression Scale)
- Ítem 7 COMI (absenteeism from work/school)
- Family APGAR
- Social environment influence: relationship with parents or chiefs, academic results, relationship with partners, free time

Methods

Radiographic data



acceptable pain ← T → Non-acceptable pain



Analysis of covariance was performed to compare means between group PAIN (NRS>3) vs No-PAIN (NRS<3) controlling for the effect of age and the magnitude of the curve.

272 patients

	PAIN	NO PAIN	
Sample	101 (37%)	171 (63%)	272
NRS	5.3	1.1	
Age	20.9	16.5	* p=0.0001
Cobb	48.6°	44.6°	* p=0.025

Results

	PAIN	NO PAIN	P
SRS-22 subtotal	3.28	3.56	0.02
SRS-22 function	3.64	3.83	0.1
SRS-22 pain	3.13	3.58	0.002
SRS-22 image	3.11	3.23	0.3
SRS-22 mental health	3.24	3.62	0.0001

Results

	PAIN	NO PAIN	
TSK	23.6	21.7	0.023
HAD anxiety	7.2	4.9	0.0001
HAD depression	3.3	1.9	0.0001
COMI#7	1.34	1.08	0.001
APGAR	8.58	8.8	0.38

Results

Social environment	PAIN	NO PAIN	P
More problems with:			
Teachers/chiefs	11%	2.40%	0.005
School/office environment	31%	13.60%	0.001
Relationship with partners	17%	7.70%	0.02
Lack of free time	30%	10.70%	0.0001

Conclusions

- More than 1/3 presented unacceptable back pain
- Pain intensity in IS patients is partially related to age and curve magnitude.



Conclusions

- Independently of these two variables, patients in the PAIN group showed a greater degree of:
 - anxiety, depression
 - fear of movement
 - poor adaptation to family/social environment,
- This group of patients had a significantly worse quality of life than the NO PAIN group.

- Scoliosis severity does not differ depending on pain
- Psychosocial profile of AIS pain patients is similar to those observed with inespecific low back pain

