

AN ASSESSMENT OF THE PERCEIVED COMPETENCE OF EUROPEAN ORTHOPAEDIC AND NEUROSURGICAL SPINE SURGEONS

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SPINEWEEK 2012 **RAI AMSTERDAM** 28 MAY - 1 JUNE



Conflicts of Interest

- Okoro T -None
- Núñez-Pereira S -None
- Luca A -None
- Boszczyk B. M. -None
- Sell P. -None



Background

- Efforts are being made in the neurosurgical and orthopaedic communities to standardize spinal surgery training (1)
- European neurosurgical trainees have been found to possess incomplete competence in dealing with spinal disorders (2)



1 Aebi M; Eur Spine J 2010 Jan 19 (1): 1-2

2 Boszczyk BM et al; Acta Neurochir(Wien) 2009 Jun; 151(6): 619-28

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Aims of study

- To assess the perceived competence in practical skills of spinal orthopaedic trainees (SOT) and specialists (SOS) in Europe
- To compare spinal orthopaedic surgeons (SOT and SOS) to neurosurgical trainees (NT) and specialists (NS)



Methods

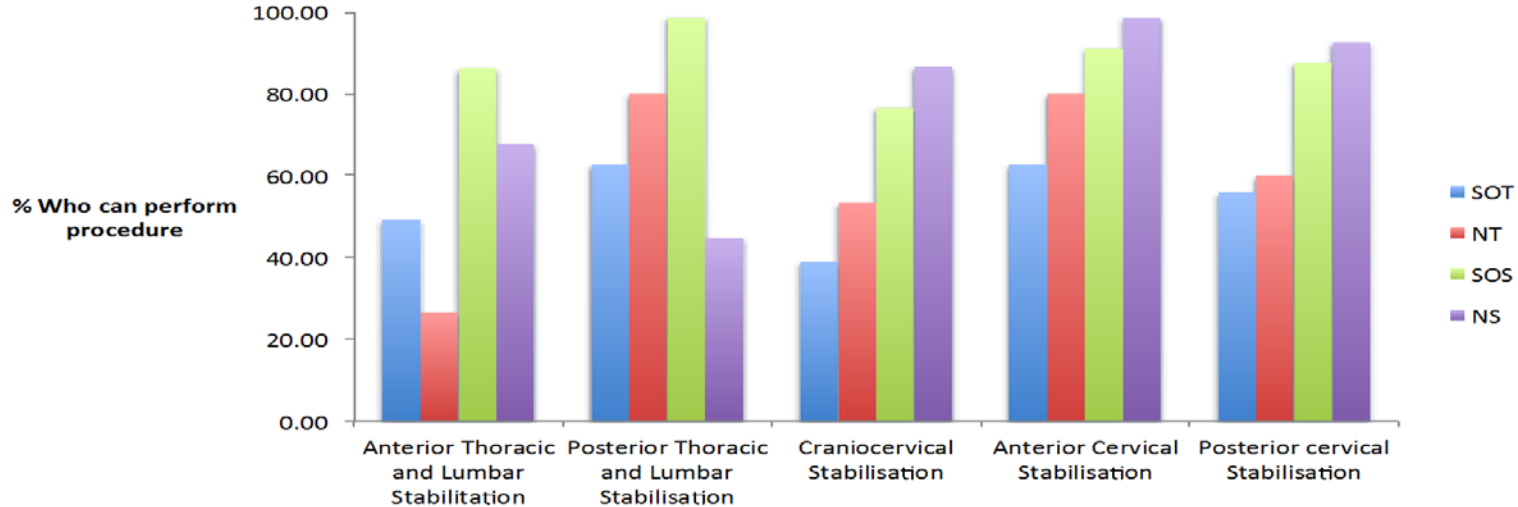
- Online survey (SOT and SOS) performed from October 2010 to July 2011.
- Practical competence in stabilisation techniques, spinal tumours, deformity and degenerative disease assessed.
- The data obtained was compared to a historical cohort of NT and NS (1)

1. Boszczyk BM et al; Acta Neurochir(Wien) 2009 Jun; 151(6): 619-28



Results

Survey response rates for spinal procedures



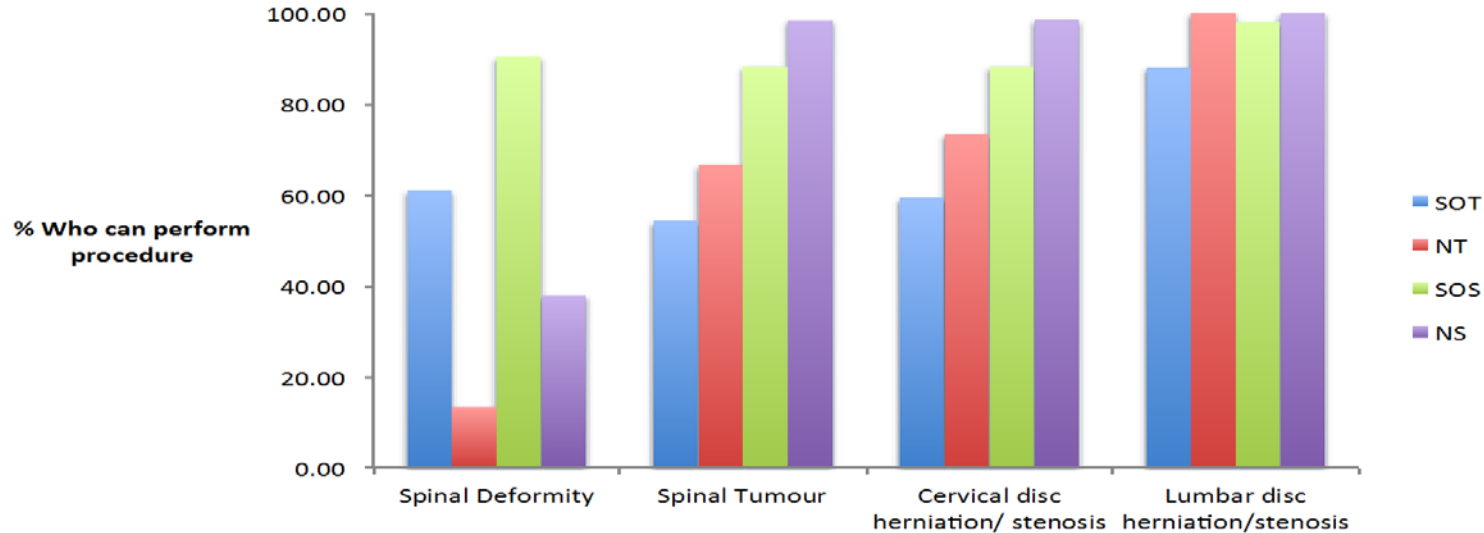
KEY

- SOT (Spinal Orthopaedic Trainees, n=59)
- NT (Neurosurgical Trainees, n=15)
- SOS (Spinal Orthopaedic Specialists, n=145)
- NS (Neurosurgical Specialists, n=68)



Results

Survey response rates for spinal procedures



KEY

- SOT (Spinal Orthopaedic Trainees, n=59)
- NT (Neurosurgical Trainees, n=15)
- SOS (Spinal Orthopaedic Specialists, n=145)
- NS (Neurosurgical Specialists, n=68)



Summary of Results

- In comparison to neurosurgical trainees (NT), spine orthopaedic trainees (SOT) have:
 - ↓ perceived competence in
 - **Anterior cervical stabilization** (62% vs. 80%, Fisher's exact test $p=0.35$)
 - **Craniocervical stabilization** (39% vs. 53%, Fisher's exact test $p=0.38$)
 - ↑ perceived competence in
 - **Spinal deformity surgery** (61% vs. 13%; Fisher's exact test $p=0.0012$)



Summary of Results

- In comparison to neurosurgical specialists (NS), spine orthopaedic specialists (SOS) have:

↑ perceived competence in

- **Anterior and posterior thoracic and lumbar stabilization** (86.2% and 98.6% vs. 67.6% and 44.7%)
- **Spinal deformity surgery** (90.3% vs. 37.9% $p < 0.001$)

↓ perceived competence in

- **Cervical disc herniation/stenosis surgery** (88.3% vs. 98.5%; Fisher's exact test $p = 0.03$)



Discussion

- ↑ Significant perception of ability for Orthopaedic surgeons vs. Neurosurgeons in **spinal deformity** surgery (trainees and specialists)
- ↓ Perception of ability among orthopaedic specialists compared to Neurosurgeons in **cervical disc herniation/stenosis** procedures



Conclusions

- Appropriate educational programs are needed to coherently address practical training issues
- ? Use of cadaveric workshops
- ? Use of simulation labs for deformity surgery



Acknowledgements

Many thanks to

- Teija Lund
- Karsten Wiechert
- Mike Fawcett



**For facilitating distribution of questionnaire to
orthopaedic spinal trainees and specialists**

