

OsEAN Open Forum – Teaching Palpation - Thursday , 29th September 2011 - Potsdam, Germany

THE NEED FOR STANDARDIZED, EVIDENCE-BASED TERMINOLOGY IN PALPATION TEACHING



Rafael Zagarra-Parodi *DO, MEd, Dip (Clin Res & Epi & Stat)*
Jean-Pascal Kily *DO*

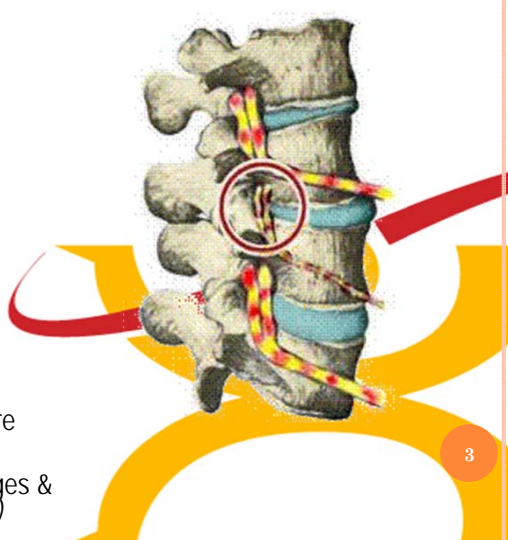
EXAMPLE OF STANDARDIZED TERMINOLOGY THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) SPELLING ALPHABET

CHARACTER	MORSE CODE	TELEPHONE	PHONIC (PRONUNCIATION)
A	• —	Alfa	(AL-FAH)
B	• • • •	Baker	(BRAH-YOR)
C	• — • —	Charlie	(CHAR-LEE) or (SHAR-LEE)
D	• • •	Delta	(DELL-TAH)
E	•	Echo	(ECK-ORD)
F	• • • •	Foxtrot	(FOKS-TROT)
G	• — •	Golf	(GOLP)
H	• • • • •	Hotel	(HOTEL)
I	• •	India	(IN-DEE-AND)
J	• — • —	Juliet	(JEW-LEE-ETT)
K	• — •	Kilo	(KEY-LOH)
L	• • • •	Lima	(LEE-MAH)
M	• — •	Mike	(MIKE)
N	• —	November	(NO-VEH-BER)
O	• — • —	Oscar	(OSS-CAH)
P	• • • •	Papa	(PAH-PAH)
Q	• — • —	Quebec	(KEH-BECK)
R	• • •	Romeo	(ROW-ME-OR)
S	• • • •	Santa	(SEE-AH-SAH)
T	• —	Tango	(TANG-GO)
U	• • •	Uniform	(YOU-NEE-FORM) or (DO-NEE-FORM)
V	• • • • •	Victor	(VICK-TAH)
W	• • • —	Whiskey	(WHIS-KEY)
X	• — • •	X-ray	(ECKS-RAY)
Y	• • — •	Yankee	(YANG-KY)
Z	• — • • •	Zulu	(ZOO-LOO)
1	• — • — • —	One	(WUN)
2	• • • — • —	Two	(TOO)
3	• • • • — •	Three	(TREE)
4	• • • • • —	Four	(FOUR)
5	• • • • • •	Five	(FIFE)
6	• — • • • •	Six	(SEX)
7	• — • — • •	Seven	(SEV-EN)
8	• — • — • —	Eight	(AIT)
9	• — • — • — •	Nine	(NIN-ER)
0	• — • — • — • —	Zero	(ZER-RO)



EXAMPLE OF STANDARDIZED TERMINOLOGY
THE SOMATIC DYSFUNCTION CONCEPT FOR OSTEOPATHIC DIAGNOSIS

- Rumney, 1975
- ICD-9 Codes (739)
- TART acronym
 - Tissue texture change
 - Asymmetry
 - Restriction
 - Tenderness
- Treated by OMT
- A clinical concept requiring more scientific evidence
- Paraspinal tissue texture changes & EMG activity (*Fryer et al, 2008*)



3

STANDARDIZED TERMINOLOGY IN PROFESSIONAL LITERATURE





- Benchmarks for training in osteopathy (*WHO, 2010*)
- 5 models of structure-function relationships
- OMT to treat the diagnoses of SD related to the LBP (*NGC, 2009*)
- Recommendation with a 1a Level of evidence
- The Scope of Osteopathic Practice in Europe – SOPE (*EFO & FORE, 2010*)
- "The indication for osteopathic treatment is the presence of somatic dysfunction that is clinically significant"

4

STANDARDIZED TERMINOLOGY IN SCIENTIFIC LITERATURE

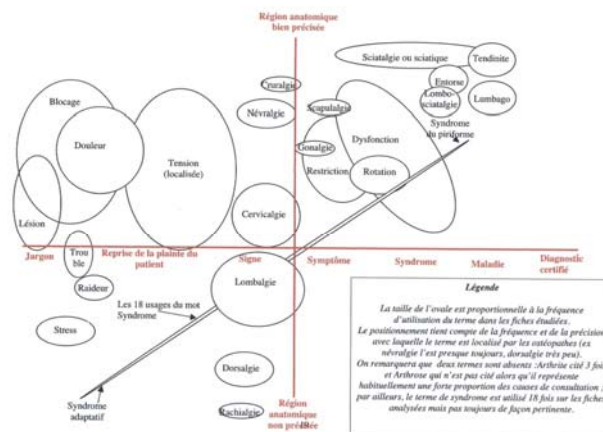
- Osteopathic Outpatient SOAP (Subjective, Objective, Assessment Plan) Note Form (AAO, 1998)
- To describe osteopathic practice
- Sleszynski and Glonek, 2005
 - Severity of SDs
 - Number of regions treated with OMT
 - OM techniques
 - Subject response to OMT
- Licciardone et al, 2005
 - Prevalence of SD
 - Averages
 - Associations
 - Simple comparisons (severity and burden indices)

The image shows a sample of an Osteopathic Outpatient SOAP Note Form. It is a structured document with sections for Patient Information, History, Physical Examination, and Assessment/Plan. The form includes checkboxes for various symptoms and signs, and a section for the Osteopathic Diagnosis. The form is titled 'Outpatient Osteopathic SOAP Note Form' and is dated 1998.

5

WHAT'S IN THE REAL WORLD FOR OSTEOPATHIC DIAGNOSIS?

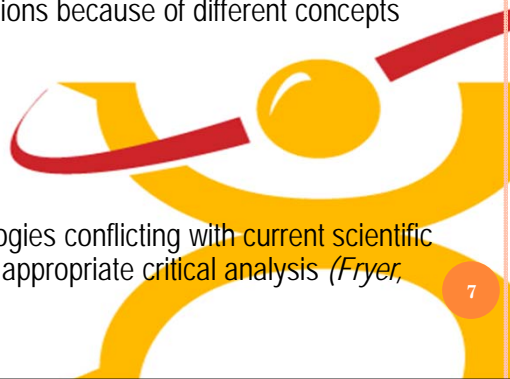
71 DIFFERENT TERMS USED 1006 TIMES IN 1109 QUESTIONNAIRES (MACMUT, 2008)



6

WHY SO HUGE DIFFERENCES?

- Different types of osteopathic training are coexisting
 - Educational institutions: within universities versus private institutions
 - "Tradition" versus "evidence-informed osteopathy"
- Different possible interpretations because of different concepts coexisting about
 - SD's physiological model
 - Barriers model
 - Techniques' classification
- Some theories and terminologies conflicting with current scientific evidence are taught without appropriate critical analysis (*Fryer, 2008*)

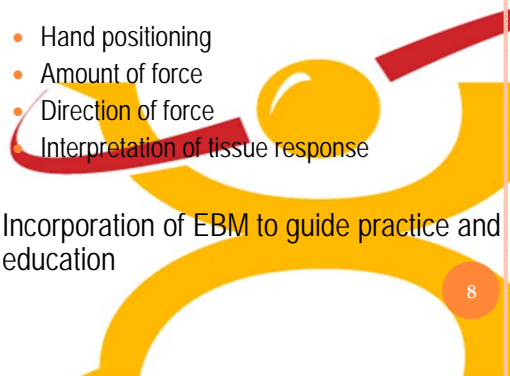


7

WHAT ABOUT TEACHING PALPATION IN MANUAL THERAPIES?

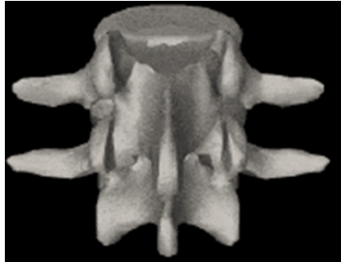


- Four main issues have been described in the scientific literature and should be addressed to improve palpation teaching (*Marcotte and Normand, 2001*)
 - Hand positioning
 - Amount of force
 - Direction of force
 - Interpretation of tissue response
- Incorporation of EBM to guide practice and education



8

WHAT ABOUT OSTEOPATHIC PALPATION TEACHING?

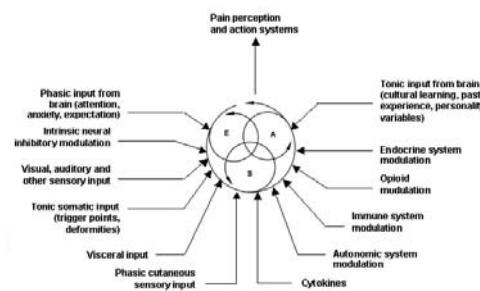


- Additionally and specifically to osteopathy
 - To interpret palpatory findings using the SD's concept
 - To describe clinical signs associated with SD
 - To determine if the SD is clinically relevant
- According to the structure-function relationships' model
- Not just a pain and movement model!

9

OSTEOPATHY IN AN EBM WORLD IS A « COMPLEX INTERVENTION »

- Intervention that contains a combination of effects which act through known and unknown mechanisms
- Contains several interacting component
- IASP Clinical Update, 2010



10

PALPATION TEACHING WITHIN A COMPLEX INTERVENTION?

- Teaching should focus on palpatory findings and health outcomes rather than hypothetical physiopathological mechanisms!
 - Preference for reliable manual procedures based on kappa and ICC values
 - Preference for palpatory findings' description with simple and evidence-based terminology
 - Preference for health outcomes' description with validated qualitative and quantitative tools



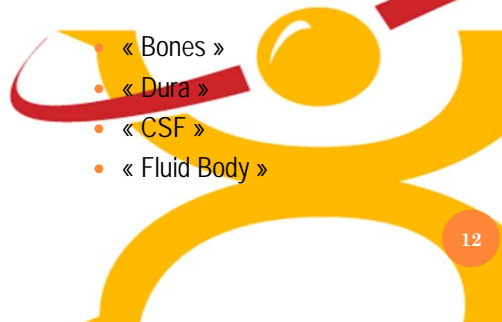
11

IS IT POSSIBLE? AN EXAMPLE OF A PEER-REVIEWED TERMINOLOGY : OCC

Sutherland WG. The cranial bowl , 1939.

McPartland JM, Skinner E. The byodynamic model of osteopathy in the cranial field, 2005.

- Swedenborg E. The brain, 1744 (*sic*)
- 4 levels of palpation requiring different skills
 - « Bones »
 - « Dura »
 - « CSF »
 - « Fluid Body »
- 5 components of the Primary Respiratory Mechanism



12

IS IT POSSIBLE TO DESCRIBE COMPLEX INTERVENTIONS WITH SIMPLE WORDS? (SNIDER ET AL, 2008)

Palpatory Examination	Assessment Protocol	Indication of Positive Finding	Severity Scale
Tissue texture changes	Assessed by palpating subcutaneous tissues with pads of fingers directly posterior to inferior articular facets of L1-L4.	Localized edema and/or fibrotic changes, rated separately for right and left inferior articular facets of each vertebra.	1 = No texture changes 2 = Mild texture changes 3 = Moderate/severe texture changes
Static rotational asymmetry	Assessed with simultaneous placement of thumbs on transverse processes of L1-L4. Anterior pressure applied until transverse processes could be palpated. No motion testing performed.	Based on static positioning of transverse processes of each vertebra. Direction of rotation defined by whether right or left transverse process demonstrated posterior prominence.	1 = No rotation 2 = Mild rotation 3 = Moderate/severe rotation
Resistance to anterior springing	Localized extension induced by springing anteriorly with hypothenar eminence on spinous processes of L1-L4. Each examiner could spring anteriorly as many as three times.	Resistance encountered to anterior springing, compared with vertebral segment above or below.	1 = No motion restriction 2 = Mild motion restriction 3 = Moderate/severe motion restriction
Tenderness	Applied localized anterior thumb pressure directly over spinous processes of L1-L4.	Subject verbalized response to development of tenderness as elicited by anterior thumb pressure.	1 = No tenderness with as much as 4 kg/cm ² pressure 2 = Tenderness with 2-4 kg/cm ² pressure 3 = Tenderness with <2 kg/cm ² pressure

13

IS IT POSSIBLE TO INTERPRET IN THE SAME WAY THE SAME INFORMATION?



- Cocorico (France)
- Cock-a-doodle-doo (England)
- Quiquiriqui (Spain)
- Kikeriki (Germany)
- Cucuriguuuu (Romania)
- Cocorococo (Portugal)
- Chicchirichi (Italy)
- Kuckeliku (Sweden)

14

CONCLUSION

- SD is a political and a clinical concept rather than a scientific one, not updated since 1975
- Osteopathy is a complex intervention but palpatory findings could be interpreted within a specific SD's model
- Should be preferred for educational purpose
- Description of palpation with a simple and evidence-based terminology should be preferred
- The way forward: a systematic review currently conducted



15

THANK YOU FOR YOUR ATTENTION!



16