TERMINOLOGY RELATING TO THE VERTEBRAL SUBLUXATION COMPLEX AND THE MANIPULATIVE SCIENCES. PART 2

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ABSTRACT

Part I of this paper discussed issues involving the many terms adopted by the various manipulative sciences health professions. These have appeared in a number of formats. In particular, it presents terminology surrounding components of the clinical entity identified by chiropractors as the Vertebral Subluxation Complex (VSC) or *chiropractic subluxation*. While it may not constitute hard evidence, the plethora of euphemisms would support the identity of the clinical finding - a VSC or subluxation complex of other articulations. (Chiropr J Australia 2017;45:90-130)

Key Indexing Terms: Chiropractic; Subluxation; History of Medicine

INTRODUCTION

The various manipulative professions have all created a range of terms related to the elements comprising the VSC. (Appendices 1-10) In addition, a number of alternative terms have evolved in naming the clinical finding of subluxation of the sacroiliac joint (Appendix 11). Furthermore, a number of alternative terms have arisen in naming the practice of addressing or manipulating the VSC. The term *adjustment* is used by chiropractors because of its specificity. (Appendix 12) The occupations whose practitioners conduct manipulative procedures have also been identified under a variety of titles. (Appendix 13)

METHOD

The extraction of these terms has been one of convenience. No attempt has been made to specifically search out or favour any particular profession. The terms have been collected over a number of years during research on other papers.

Medically-sourced terms have been differentiated in the appendices by being presented in italics. If multiple references are cited in this font, at least one of the citations will be presented either as a medical author or from a medical journal. This has been included in order to depict the inter-professional recognition of the euphemisms. Interestingly, virtually all of these 724 terms seem appropriate in their own right – especially the 671 relating to the VSC itself.

Terms extracted from chiropractic, osteopathy, and physiotherapy, or other sources, have not been differentiated. However, the majority of these terms in Appendices 1-10 are derived from chiropractic sources. No reason was identified to explain why new terms keep appearing.

DISCUSSION

As chiropractic and osteopathy in particular have both pioneered and persisted with manipulative health care, it could be seen as a form of tacit recognition that such a large percentage of these terms now arise from medical and physiotherapy sources.

I suggest here that the appended nomenclature lists primarily demonstrate evidence and awareness in the medical literature of the *vertebral subluxation* concept, and its ramification upon human physiology.(154 p-220, p216-219, 319-322 While such clinical recognition by so many practitioners may not provide what some may regard as hard evidence, it may be categorised under “Editorials, Ideas, Opinion” on some of the hierarchical pyramidal models of evidence.(323,324)

Some may argue that there is insufficient evidence at a level to satisfy the contention that the subluxation does exist. However, there is a notable dearth of formal proof that it doesn’t exist. It should also be noted and has been well argued, that you *can* ‘prove a negative.’ (325,326)

In questioning the available evidence regarding the VSC, mere unreferenced opinion proffered by doubters, does not constitute hard evidence. Nor does it compare with the mounting evidence supporting the subluxation context. Such unsubstantiated opinion negates doubters’ contention in that there is virtually no evidence to the contrary.

The very term *opinion* implies that others hold a different point of view. On that basis alone, the negative argument is far from convincing. That tactic of denouncing chiropractic care by expressing biased comments was employed decades ago in trying to censure chiropractic care for mechanical back pain and cervicogenic headaches. These have now become incorporated in recommended care, based primarily on efficacy, and patient demand, followed by considerable supporting published evidence.

The rather extensive list of euphemisms would suggest that there is considerable clinical recognition of the vertebral subluxation. This functional complex lesion is identified and addressed daily by practitioners of various professions throughout the world. It is also acknowledged by the World Health Organisation, being listed in their ICD-10. (327)

The proliferation of these euphemisms tends to show that there is also far more clinical evidence and observations in support of the VSC concept than any evidence to the contrary. I am not aware that of any formal effort *being made* by detractors of the VSC which supports their repudiation of such a common clinical finding of the spine or of other articulations.

Using the same criteria as the doubters who call for proof of VSC existence, one cannot independently or objectively prove that a patient is experiencing back pain, sciatica, cervicogenic headaches, or myopia. Proof of the existence of these conditions also relies heavily on subjective input. As such, precedents for such a clinical finding are well established

Demonstrating a VSC on MRI can at times be akin to trying to demonstrate trigeminal neuralgia or cluster headache on MRI. Using the same criteria as that used against existence of VSCs, and because cervicogenic headaches cannot be demonstrated on MRI, does not mean it does not exist.

There are a number of metaphorical questions that should be addressed by those who question the existence of the chiropractic subluxation. These include:

- What do all manipulators do to the patients they manipulate?
- If there is no such thing as a subluxation, how do they justify manipulating or mobilising a 'normal' spine?
- If it is not 'normal', what do they call the abnormal feature they seek in their spinal examination?
- If it is not 'normal,' what is it they seek to address or rectify?
- How do they justify their manipulation?
- What rationale do they use to identify the anatomical target in order to direct their manual ministrations?
- How do they explain patient-reported alleviation of pain, or headaches, or other positive outcomes?
- How do they explain to patients what manual manipulation procedures are trying to accomplish?
- What evidence do they use to support their explanations and procedures?
- If a term other than subluxation is preferred, how does evidential proof of its existence differ from that of proof for a VSC?
- Can those who object to the term subluxation, or demand evidence for the existence of a vertebral subluxation, demonstrate that an intervertebral dysfunction exists by using another term?

While a list such as offered here may not be regarded by some as convincing or worthwhile evidence, it is nonetheless a rather extensive acknowledgement of clinically observed phenomena that deserves recognition. To ignore such frequent observations of clinical findings as the VSC, could be regarded as unscientific, unjustified and even unethical.

The old chestnut sometimes thrown at chiropractors is that of the old theory of a bone out of place ['BOOP' (Appendix 6)] being demonstrated on radiological studies. The concept bears remarkable similarity to the traditional definition of a subluxation as described by Dorland's - *"An incomplete or partial dislocation."*(328) In addition, this (and other) definitions of this joint displacement do not nominate the critical turning point of when a subluxation becomes a luxation.

Schmorl and Junghanns identify these biomechanical lesions with extensive references cited in support of their presentation. Their text contains a bibliography of approximately 2800 individual listings. (154) Unfortunately, much of their reference material is in untranslated European medical journals. Perhaps this is why medical journals in the English language carry relatively little references to vertebral subluxations and specialised manipulation. Furthermore, the authors also note the association of these dysfunctional vertebral lesions with their influence on the autonomic nervous system, indicating the potential ramifications of neural influence upon pathophysiology.

CONCLUSION

With so many citations in the medical and chiropractic literature, and elsewhere, there should be justified awareness in the health professions of this spinal phenomenon identified as the VSC. (154 – p223)

As the reference lists for these appendices is rather extensive and would extend over a number of pages, they are offered as a single email at cadaps@bigpond.net.au, or through the CAA at journal@caa.asn.au.

APPENDIX 1

SUBLUXATION COMPLEX - GENERAL TERMS

*Listings in Italics indicate the citation is from a medical-related source. i.e. primarily a medical journal, a medical website or at least one medical author.

115 terms of which 51 (44.3%) are medically referenced.

Abnormal dynamics (1)
A class of spinal abnormalities (2)
Altered physiological function (3)
Alignment (4)
Anatomopathology (5)
Apophyseal subluxation (6)
Arthron (7) (Subluxation in an extremity articulation see also vertebron (7))
Articular lesion (8)
Asymmetry or loss of congruity in the (CO/C1) articulation (4)
Atlantoaxial rotatory deformity (subluxation) (9)
Axial skeletal improprieties (10)
Biomechanical disorders (11)
Biomechanical dysfunction (307)
Biomechanical faults (11)
Bony maladjustment (12)
Bony impingement (of pedicle) (6)
Bony lesion (13)
Cervical joint sprain (14)
Chiropractic subluxation (11)
Chiropractic subluxation complex (15,16)
Chiropractic lesion (17)
Compensatory structural subluxations (18)
Comprehensive lesion (19)
Coterminous (4)
Deconditioned syndromes (20)
Degree of subluxation (21)
Derangement (8)
Derangement of the opposing joint surfaces (22)
Deviation of bodies (23)
Disturbance in around the (IVF) (6)

Dynamic Biomechanical lesion (24)
Dynamic misalignment (25)
Dynamic segment (26)
Excursion (27)
Facet syndrome (28)
Facilitated segment (29,30)
Functional or mechanical derangements of the spine (31)
Immobilisation derangement (32)
Independent spondylogenic disease (154 p-220)
Internal joint derangement (33)
Internal Vertebral Syndrome (26)
Interrelationship of form and function (11)
Intersegmental subluxation (34)
Intervertebral disrelationship (35)
Intervertebral obturation (36)
Intervertebral pathology (37)
Intervertebral joint subluxation (38)
Joint subluxation (14)
Kinetic subluxation (35)
Lesion (12,39)
Loss of congruity (4)
Loss of juxtaposition (25)
Malalignment (4)
Manipulable joint (40)
Manipulatable articular lesion (11)
Manipulatable joint lesion (15)
Manipulatable lesion (41)
Manipulable spinal lesion (42)
Manipulatable spinal joint lesion (15)
Manipulative lesion (43)
Minor interveretebral pathology (37)
Motor unit derangement (44)
Musculoskeletal lesions (43)
Occult (subluxation) (45)
Osteologic lesion (42)
Osteopathic lesion (11,15,46)
Osteopathic spinal lesion (29)
Osteopathic spinal joint lesion (13)
Paravertebral subluxation (47)
Pathoanatomical lesions (48)
*Pathoanatomical lesions in the…zygapophyseal joints reversible with adjustment/manipulation (49)
Pathological manipulable spinal lesion (50)
Physiologic misalignment (51)
Physiologic subluxation (23)
Physiological anterolisthesis (51)
Pathophysiology and clinical aspects of the motor segments (154 p185-242)
Pathophysiology of the articulations (154 p-200-212)
Posterior joint syndrome (52)
Posterior subluxation (54)

Pseudosubluxation (51,54)
Retroluxating (53)
Reversible intervertebral derangement (5)
Rotational atlantoaxial subluxation (55)
Sagittal Motion (56)
Secondary disturbance (6)
Segmental reflexive Complex (7,30)
Somatic dysfunction (46)
Spinal joint complex (57)
Spinal lesion (13,40,52)
Spinal pathophysiology (12)
Spinal segmental facilitation (58)
Spinal subluxation (45)
Static and dynamic components (11)
Subluxation (42,59,60)
Subluxation complex (32)
Subluxation of articulations (14)
Subluxation of the apophyseal (6)
Subluxation of the…posterior articulations (6)
Subluxation syndrome (3)
Uncorrected vertebral subluxation complex (61)
Upper cervical abnormality (62).
Vertebral factor (26)
Vertebral genesis (26)
Vertebral imbalance (63)
Vertebral induction (26)
Vertebral lesion (64)
Vertebral sprain (14,65)
Vertebral strain (14,65)
Vertebral strain disturbance (63)
Vertebral subluxation (59)
Vertebral subluxation complex (3,66)
Vertebral subluxation syndrome (3)
Vertebrally diseased (26)
Vertebron (7) (Vertebral subluxation - see also arthron (7))

APPENDIX 2

BIOMECHANICAL DYSFUNCTION, ARTICULAR PATHOPHYSIOLOGY, PATHOMECHANICS (NEUROMECHANICAL INTERARTICULAR PATHOPHYSIOLOGICAL SEGMENTAL DYSFUNCTION, VERTEBRAL DYSFUCNTION)

201 terms of which 59 (28.1%) are medically referenced.

Aberrant motion (1)
Abnormal dysfunction (67)
Abnormal dynamics (1)
Abnormal function (67)

Abnormal in both its dynamic and static components. (11)
Abnormal instantaneous axis of rotation (68)
(Ab)normal joint mechanics (40)
Abnormal joint motion (3,40,66)
Abnormal joint play or end feel (42)*
Abnormal mechanics (69)*
Abnormal motion or position (17)
Abnormal spinal biomechanics (70)
Abnormal spinal function (17,19)
Abnormal vertebral motion (42).
Abnormalities of range of motion or coupling (71)
Alignment derangement (77)
Alteration in joint movement (3)
Alterations in motor segments (72)
Altered biomechanical performance (73)
Altered intervertebral mechanics (74)
Altered joint function (75)
Altered joint motion (3)
Altered joint structure and function (76)
Altered mobility (2)
Altered physiological function (3)
Altered regional mechanics (74)
Altered joint motion (40)
Altered physiological function (3)
Arthropathic (78)
Articular dysfunction (79)
Articular dyskinesia (40)
Articular motion dysfunction (304)
Atlantoaxial subluxation (307)
Biomechanical alteration (79,80)
Biomechanical changes (79)
Biomechanical distortion (81)
Biomechanical dynamics (79)
Biomechanical dysfunction (82)
Biomechanical fault (11)
Biomechanical impropriety (81)
Biomechanical input (79)
Biomechanical overload (79)
Biomechanical stress (83)
Bizarre movement (35)
Blockade (11)
Blocked end-feel (84)
Cervical joint dysfunction (85)
Changes in mobility and axes of movement (112)
Changes in the normal anatomical, physiological or biomechanical dynamics (79)
Changes of the dynamic segment (21)
Changes of thoracic segments (21)
Complex nonlinear relationships (86)
Compressed bones and joints (87,88)
Compressive lesion (17)

Compromise (of) proper function (19)
Compromise the integrity of the intervertebral foramen (89)
Debilitating Spinal function (90)
Decoupling of the C5/6 complex (91)
Delayed instability (92)
Delayed mobility (93)
Deformation (and subluxation) of the cervical apophyseal joints (94)
Degenerative dynamic segment (26)
Derangement (95)
Discoradicular conflict (26)
Disturbance in the mechanico-dynamics (96)
Disturbed kinematics (40)
Dynamic forces (26)
Dynamic segment (26)
Dynamic spinal disturbance (11)
Dysarthria (11)
Dysarthrogenous lesion (57)
Dysarthrosis (11)
Dysfunctional articulations (75,97)
Dysfunctional joint (98)
Dysfunctional segments (99)
Dyskinesia (100)
Erratic movement (11)
Erratic movement of spinal articulations (35)
Errors of static or motor mechanics (101)
'Flopping' motions (on cineroentgenography) (35)
Excursion (102) ("Wandering from the usual path."- Taber's)
Facet compromise (103)
Facet joint dysfunction (104,105)
Facilitated segment (11)
Failure of interarticular function (11)
Force other joints to move too much (17)
Functional and structural changes in the three joint complex (104)
Functional compromise (106)
Functional defects (104)
Functional deficit (26)
Functional derangement (26,107)
Functional disturbance (107,108)
Functional impairments of motion (40)
Functional lesion (50)
Functional pathology (109)
Functional pathology of the locomotor system (110)
Functional spinal lesion (40)
Functional spinal unit (111)
Functional subluxation (112)
Gravitational (im)balance of joints (with) reduced chronic, asymmetrical forces (40)
Impairment (17)
Inability of the segment to articulate about its new axis (113)
Inefficient motor segment (154 p-213)
Interarticular dyskinesia (11)

Internal joint derangement (33)
Intersegmental instability (8)
Intervertebral dysarthrosis (11)
Intervertebral; dyskinesia (11)
Intervertebral dysfunction (11)
Intervertebral dysfunction of the mobile segment (114)
Intervertebral insufficiency (154 p-213)
Intervertebral movement dysfunction (115)
Intervertebral obturations (26) (Closure of an opening - presumably the IVF)
Inverse (paradox) movement (116)
Joint disturbances (117)
Joint complex dysfunction (118)
Joint dysfunction (119,120)
Joint phenomena (41)
Kinematic change (121)
Kinematic irregularities (122)
Kinesiopathological (41)
Kinesiopathology (3)
Kinetic intersegmental subluxation (32,123)
Kinetic subluxation (35)
Loss of central axis of motion (90)
Loss of mechanical integrity (124)
Loss of mobility and function was the most important pathophysiology (112)
Low back dysfunction (67)
Malfunctioning spinal joint (17)
Mechanical derangement (67,96)
Mechanical derangement of the joint (125)
Mechanical disorder (16)
Mechanical dysfunction (126)
Mechanical fault (127)
Mechanical fidelity (128)
Mechanical interferences (78)
Mechanical irritation of the sympathetic ganglionic chain (21)
Mechanical malfunctioning (129)
Mechanical musculoskeletal dysfunction (130)
Mechanically compromise (131)
Mechanically infringe (132)
Mechanical subluxation (112)
Mechanico-neural interaction (21)
Metameric dysfunction (133) (metameric = segments arranged in a linear series.)
Motion aberration (111)
Motion segment buckling (8)
Neurospinal dysfunction (134)
Non-synchronized movements (of segments) (35)
Orthokinetics (78)
Ortho-spondylo-dysarthrics (57)
Painful intervertebral dysfunction (*'PID'*) (114)
Painful minor intervertebral dysfunction (*'PMID*') (135)
Palpable changes (3)
Patho-functional (136)

Pathological alteration in the motion of joints (137)
Pathological fixation in a position within the normal range of motion (60)
Pathologically altered dynamic segment (26)
Pathomechanics (25,112)
Pathophysiological mechanics (33)
Pathophysiological involvement (111)
Pathophysiology (17)
Perverted function (101)
Positional dyskinesia (20,89)
Posterior facet dysfunction (47)
Posterior joint dysfunction ('PJD') (67)
Primary dysfunction (46)
Putative lesion (73)
Putative segmental instantaneous axis of rotation (138)
Reflex dysfunction (85)
Regional dysfunction (12)
Reversible intervertebral derangement (5)
Reversal of normal motion (8)
Secondary disturbances in the relationships between adjacent structures (6)
Segmental dysfunction (12,93)
Segmental mobility disorders (139)
Spondylodyskinesia (124)
Simple joint and muscle dysfunction without tissue damage (140)
Somatic dysfunction (8,11,15,41)
Specific spinal or paraspinal joint dysfunction (111)
Spinal dysfunction (12)
Spinal joint dysfunction (12)
Spinal joint malfunction (16)
Spinal kinesiopathology (61)
Spinal mechanical dysfunction (141)
Spinal pathomechanics (142)
Spinal sprain (61)
Spondylodysarthric lesions (57)
Stable cervical injury of the spine (143)
Static and functional equilibrium (loss of) (154 p-223)
Static disturbance (41)
‘Sticky’ or ‘jumpy’ type of movement (35)
Subluxation dysfunction (111)
Traditional chiropractic lesion (120)
(Vertebrae)don't move enough, or they move too much (17)
Unresolved mechanical tension or torsion (144)
Vertebral dysfunctions (145)
Vertebral dyskinesia (16,146)
Vertebrogenic dysfunctions (147)
Whiplash-associated joint dysfunction (14)
Zygapophyseal pathophysiology (12)

APPENDIX 3

ARTICULAR FIXATION

67 terms of which 22 (32.8%) are medically referenced.

Abnormal fixation (78)
Acute joint locking (16)
Acute locking (148)
Articular locking (154)
Atlas blockade (149)
Blockade (11)
Blockage (287)
Blocking (64,150)
Cervical joint block (312)
Compressed bones and joints (88)
Divergent spinous process sign (132)
Dynamic component (112)
Dysarthic lesion (57)
Dysarthrosis (16)
Facet lock (151)
Facet syndrome (28)
Facet synovial impingement (152)
Fanning of interspinous space (132)
Fixated (11)
Fixation (11,113)
Fixation dysarthrosis (16)
Fixed vertebra (13)
Functional block (16)
Hypomobility (15)
Interdiscal block (33)
Interdiscal blockage (5)
Interarticular dysarthrosis (88)
Intervertebral “blockade” (88)
Intervertebral blocking (15)
Joint bind (113)
Joint block (311)
Joint blockage (41)
Joint fixation block (153)
Joint immobilization (33)
Joint-lock (84)
Locked (15)
Locked mobility (154)
Locked subluxation (155)
Locking (15)
Locking due to internal derangement (11)
Locks up and restricts motion (155)
Mechanical component (112)
Painful limitation of motion (154)
Pathological fixation (60)

Physiologic lock the motion segment (113)
Rotary fixation (55)
Segmental blockade (156,157)
Segmental fixation (8,158)
Segmental rigidity (139)
Spinal fixation (12)
Spinal joint blocking (113)
Spinal joint locking (158)
Spinostasis (159)
Spontaneous subluxation (160)
Static intersegmental subluxation (132)
Static subluxation (13)
Stiffening (154 p-221)
Strain (161-167)
Strain distribution (168)
Stuck (17)
Subtle instability (169)
Total fixation (35)
Traumatic subluxation (170)
Vertebral blockage (42)
Vertebral fixation (158)
Vertebral locking (154)
Wedged disc (13)

APPENDIX 4

ARTICULAR HYPOMOBILITY

39 terms of which 4 (10.3%) are medically referenced.

Abnormal restrictive barrier in or around joints (71)
Abnormal restriction of joint motion (156)
Decrease in the range of motion (145)
Diminution of mobility (11)
Hypomobility (11)
Hypomobile vertebral segment (135)
Joint microblockages (171)
Joint movement restriction (172)
Joint or segmental movement restrictions (173)
Lack of movement (84)
Lessened motion (2)
Limitation of movement (11)
Locking (154 p-223)
Lose their normal motion or position (26)
Loss of central axis of motion (90)
Loss of central axis of rotation (174)
Loss of elasticity (175)
Loss of joint movement (33)
Loss of joint play (41,176)

Loss of normal vertical 'joint slack/play' (156)
Loss of segmental mobility (13)
Motion restriction (41)
Movement restriction (41)
Partial fixation (35)
Reduced mobility (12)
Restricted motion (12)
Restriction (41)
Restriction of unisegmental mobility (113)
Restrictive motion (12,15)
Segmental movement restriction (148)
Segmental vertebral hypomobility (12)
Soft tissue ankyloses (35)
Spinal hypomobilities (177)
Spinal fixation (12)
Spine restriction (173)
Stable cervical injuries (93)
Stiffening (154 p-223)
"Vertebrae don't move enough" (17)
Vertebral hypomobility (179)

APPENDIX 5

ARTICULAR HYPERMOBILITY

18 terms of which 9 (50%) are medically referenced.

Abnormal increase in joint motion (90,156)
Compensatory hypermobility (12)
General hypermobility of a joint with actual displacement of the parts (179)
Hyperanteflexion sprain (12)
Hyperkinesis (32)
Hypermobility(3)
Intervertebral instability (154 p-215)
Intervertebral insufficiency (154 p-213-223)
Joint "instability" (67)
Loosening of the motor segment (154 p-213)
Mechanical instability (102)
Segmental instability (139)
Spinal segmental instability (168)
".(subluxations)*..force other joints to move too much."* (17)
Subtle instability (130)
Unstable lumbar spine (168)
Unstable subluxation (12)

APPENDIX 6

OSSEOUS DISPLACEMENT

116 terms of which 55 (47.4%) are medically referenced.

Abnormal motion or position (17)
Abnormal position (180)
(Ab)normal structural relationship (40)
Alignment derangement (77)
Alignment (4)
Altered alignment (3)
Altered joint structure and function (33)
Anterior slippage (51)
Anterior T6 syndrome (134)
Apophyseal subluxation (7)
Approximation of the vertebral bodies (160,181)
Articular derangement (11)
Articular juxtaposition (40)
Articular malalignment (174)
Axial deformation (182)
Bony displacement (183)
Cervical joint positioning (184)
Changes in position (linear and rotational) (112)
Compressive lesion (156)
Degree of subluxation (1)
Deviation of the spinous process (185)
Displacement (186)
Displacement vectors (112)
Disrelationship of the facets (187)
Divergent spinous process (132)
Dynamic deformation (182)
Dynamic misalignment (156)
Dystopia (188) (Malposition or displacement of any organ -au)
Facet imbrication (132) (Overlapping -au)
Facet separation (170)
Flexion malposition (189)
Force deformation (182)
Imbrication (190)
Incomplete articular dislocation (11)
Incomplete dislocation (191)
Incomplete luxation (8)
Intervertebral joint subluxation (38,158)
Intervertebral subluxation (12)
Joint displacement of a sprain (170)
Joint misalignment (156)
Just short of a dislocation (22)
Lateral subluxation (96) (Of occiput and atlas on axis - au)

Less than a locked dislocation (35)
Lose their normal.....position (17)
Loss of juxtaposition (25)
Loss of positional integrity in the spine (112)
Maladjustment (of a vertebra) (113)
Malalignment (18,160,172)
Malalignment syndrome (192)
Mal-alignment (193)
Malposed vertebra (194)
Malposition (103)
Mild retrolisthesis (53)
Minimal retrolisthesis (53)
Minor derangement (67)
Minor displacements (195)
Minor intervertebral derangement (5)
Minor mechanical disturbances of the intervertebral joint (5)
Misalignment (24)
Misalignment of the fibrocartilagenous joint (187)
Multisegmental spinal distortion (18)
No longer congruous (190)
Offset (196)
Offset articular margins (60)
Partial articular dislocation (11)
Partial dislocation (59,191)
Partial displacement (170)
Partial luxation (59,183)
Partial or incomplete articular dislocation (41)
Partial or incomplete separation (41)
Physiologic displacement (196)
Palpable changes (3)
Physiological anterolisthesis (51)
Physiologic misalignment (51)
Positional change (112)
Positional integrity (112)
Pseudosubluxation (51,54)
"Relative as absolute lack of space within the intervertebral foramen" (26)
Residual displacement (197)
Rotated around its axis (84)
Rotatory displacement of the bodies (198)
Sagittal translation (102)
Sectional subluxation (47)
Semiluxation (12,191)
Separation of the vertebral bodies (198)
Shear strain distribution (129)
Slight change in position (2)
Slight luxation (183)
Slightly luxated (199)
Slightly misaligned vertebra (12)
Slightly malpositioned in one or more axes of rotation (11)
Slight malposition (11)

Slight mis-alignment (200)
Spinal displacement (154)
Static arrangement without any dynamic implication (41)
Static deformation (182)
Static misalignment (112)
Step formation (27)
Structural abnormalities (52)
Structural derangement (101)
Structural disrelationship (35)
Structural inter-segmental distortion (144)
Structural lesions (52)
Subluxation (59)
Sub-luxation (13)
Subluxes (155)
Telescoping (190)
Three joint complex (104)
Tilting of the vertebral body (187)
Translation (102)
Unilateral offset (23)
Vertebral derangement (152)
Vertebral displacement (64)
Vertebral malposition (8,42)
Vertebral motor unit derangement complex (44)
Widening of the interspinous space (93)

APPENDIX 7

PATHOMYOLOGICAL/LIGAMENTOUS

35 terms of which 4 (11.4%) are medically referenced.

Abnormal muscle function (17)
Atrophy (156)
Biokinergia (171)
Changed motor pattern (in muscles) (117)
Changes of thoracic segments (26)
Delayed instability (93)
Instability of the posterior ligament complex (93)
Disorder of the disc (13)
Fibrosis (156)
Hypertonicity of paraspinal muscles (115)
Hypertonus (156)
Hypotonus (156)
Instability of the posterior ligament complex (93)
Joint-muscle dysfunction (115)
Ligatights (35)
Loss of elasticity (175)
Muscle contraction or imbalance (42)
Muscular dysbalance (12)

Musculoskeletal dysfunction (201)
Myopathological (41)
Myopathological phenomenon (156)
Myopathology (17)
Myotonic component (44)
Neuromuscular dysfacilitation (202)
Pathologically altered bradytrophic tissue (26)
Primary fibromyalgic syndrome (3)
Simple joint and muscle dysfunction without tissue damage (140)
Soft tissue ankyloses (35)
Spasm (156)
"Spasmophilic Constituent" (5)
Spinal kinesiopathology (203)
Subluxation complex myopathy (204)
Tightened, deep, joint related structures (205)
Tightening of associated ligament and muscular structures (145)
Vertebroligamentous sprain strain (74)

APPENDIX 8

NEUROLOGICAL/PATHONEUROPHYSIOLOGICAL

90 terms of which 16 (17.7%) are medically referenced.

(Ab)normal articular sensory input (40)
Abnormal nervous system function (17)
(Ab)normal regional sympathetic tone (40)
Adverse mechanical tension of the nervous system (19)
Alteration of afferent articular input due to joint dysfunction and nociceptor excitation (75)
Altered afferent articular input (75)
Altered nervous system movement (19)
Altered nociceptive and proprioceptive input (33)
Articular neuropathy (156)
Biomechanical insult (33)
Blocked atlantal nerve (309)
Blocked atlas nerve (310)
Cervicogenic otoocular syndrome (318)
Chronic segmental facilitation (8)
Compromise neural integrity (206)
Dysafferentation (118)
Discoradicular conflict (26)
Dysponesis (207)
Dysautonomia (100)
Engagement of the spinal segment in a pathologic reflex chain (26)
Error of joint moments (317)
Facilitated segment (12,30)
Facilitated spinal system (144)
Facilitated subluxation (144)

Facilitative lesion (17,156)
Facilitative segment (156)
Harmful dysfunction of the neuromusculoskeletal system (110)
Hyperresponsive (8)
(Im)properly direct(ed) co-ordinated, (in)harmonious motor programming (40)
Increased nociception (208)
Integration and modulation (209)
Joint position error (314)
Joint position sense error (315)
Mechanico-neural interaction (26)
Modification of afferent input and internuncial circuits (34)
Nerve root irritation (96)
Nervous system impairment by the spine (210)
Neuroarticular lesion (211)
Neuroarticular complex (211)
Neuro-articular dysfunction (212)
Neuroarticular lesion (211)
Neuro-articular subluxation (8)
Neuro-articular syndrome (212)
Neurobiomechanica (l11)
Neurodynamic dysfunction (305)
Neurodynamic subluxation (213)
Neuro-dysarthric (57)
Neuro-dysarthrodynic (57)
Neurodystrophy (12)
Neurofunctional subluxation (8)
Neurological dysfunction (35)
Neurological hyperactivity (156)
Neurological hypoactivity (156)
Neurological irritation (156)
Neurological subluxation (112)
Neuromechanical dysfunction (214,215)
Neuro-mechanical spinal dysfunction (216)
Neuro-mechanical lesion (8)
Neuro-mechanical spine syndrome (217)
Neuromodulatory effects (218)
Neuromuscular dysfacilitation (202)
Neuromuscular dysfunction (40)
Neuromuscular involvement (111)
Neuropathology (219)
Neuropathophysiological effects (41,118)
Neuropathophysiology (115)
Neurospinal condition (81)
Neurospinal distortions (81)
Neurostasis (159)
Nociceptive bombardment (8)
Noxious mechanical stimulation (8)
Noxious and innocuous stimulation (220)
Pain and debility without recognisable pathology (113)
Painful irritation (221)

Painful limitation of motion (154)
Painful minor intervertebral dysfunction (135)
Pathogenic interaction of spine and nervous system (26)
Pathology of nerve root function coupled with mechanical disorder (217)
Patho-neurophysiology (84)
Physiologic regulation through manual therapy (222)
Prespondylosis (34)
Radiculitis due to root irritation without marked bony encroachment (6)
Reduced mechanoreception (208)
Reflexogenic activity (156)
Somatovisceral reflexes (223)
Spinal irritation (12,224)
Spino-neural conflict (26)
Spondylogenic sequelae (154 p-223)
Stress-strain…of spinal nerve roots (225)
Traumatic dysautonomic (226)

APPENDIX 9

SYMPTOMATIC/CLINICAL SIGNS

26 terms of which 10 (38.5%) are medical references in Italics.

(Associated) *soft tissue abnormalities* (42)
Facet joint syndrome (113)
Fixation syndromes (185)
Focal tenderness (3)
Gynecologic vertebral syndrome (154 p-219)
“Incomprehensible pattern of symptoms and clinical findings when compared to with examination of mechanical lesions in the extremities” (113)
Localised/referred pain (3)
Pain and debility without recognisable pathology (113)
Pain and stiffness (145)
Painful intervertebral dysfunction ('PID') (114)
Painful minor intervertebral dysfunction ('PMID') (73)
Palpable changes (3)
Posterior joint syndrome (8)
Putative effects (120)
Spondylogenic-neuroautonomic (154 p-219)
Spondylogenic-neuromotor (154 p-219)
Spondylogenic-neurosensory (154 p-219)
Spondylogenic-vascular-mechanic (154 p-219)
Spondylogenic-vascular-neuroautonomic (154 p-219)
Spondylogenic pelvipathy (154(p219)
Spondylogenic vascular disturbances (154 p-218)
Spontaneous subluxation (12) (“usually a sequel to an inflammatory process of the throat.”)
Tenderness over zygapophyseal joints (115)
Vertebrogenous syndromes (17)

Vertebral subluxation syndrome (3,8)

APPENDIX 10

VASCULAR/BIOCHEMICAL

10 terms of which 2 (20%) are medically referenced.

Biochemical changes (8)
Biochemical dysfunction (11)
Hyperemic subluxation (227)
Histochemical changes(11)
Inflammatory(11)
Mechanical and chemical changes (79)
Relative hypoxemia (11)
Uncontrolled metabolism (11)
Vasomotor changes (8)
“Vasoneuroactive substances are released”(11)

APPENDIX 11

SACROILIAC and PELVIC SUBLUXATION

51 Terms Relating to a Sacroiliac Subluxation of which 17 (34.7%) are medical refenced.

Abnormal pelvis biomechanics (228)
Altered sacroiliac mechanics (117)
Change in relation (229)
Displacement (186)
Disturbed normal relationship (230)
Disturbed locomotor function (173)
Distorting the normal joint mechanics (126)
Downslips (231) (See also 'Upslips')
Dysfacilitation (202)
"Dysfunction (subluxation) in the joints of the pelvis and spinal column produce neuromuscular dysfacilitation...” (202)
Dysarthria (228)
Dysarthric syndrome (228)
"...effect on body mechanics" (117)
Fixation dysfunction (202)
Instability of the pelvic joints (183)
“...Irritation of the nerves is possible...” (230)
Joint binding (126)
Joint dysfunction (117)
Joint fixation block (153)
Joint lesion (232)
Joint motion restriction (233)
Joint slip (229)

Joint syndrome (232)
Limitation of motion (230)
"… locking may occur in the position of rotation of the hip bones…" (Gray's Anat.)(234)
Malposition (230)
Malrotation (126)
Mechanical dysfunction (126)
Mild pubic diastasis (235)
Misplaced (230)
Misplacement (230)
Motions are restricted (230)
Neuromuscular dysfacilitation (202)
"Non-optimal stability of the pelvic girdle joints" (236)
Paravertebral subluxation (8)
Partial luxation (230)
Primary dysfunction (228)
Restrictions (233)
Rotatory slips (126)
Shear dysfunction (231)
Shear mechanism (231)
Slight luxation (230)
Slip (229,230)
S*lipping sacro-iliac joints* (229)
"..stick at the limit of normal motion.." (126)
Strain (161,230,237,238)
Strain and laxity (126)
Subluxation (194,238)
Tilts (anterior, posterior) (161)
Upslips (231) (See also 'Downslips')
Vertical slipping of the innominate on the sacrum (205)

"Dysfunction (subluxation) in the joints of the pelvis and spinal column produce neuromuscular dysfacilitation..." Gudgel JW [202].

APPENDIX 12

SYNONYMS OR METAPHORS RELATING TO THE SPINAL & ARTICULAR MANIPULATION.

103 of which 39 (37.9%) are medically referenced.

Adjustment (59)
"Adjustment" (239) (- cervical described – au)
Antihypokinetic (240) (spinal mobilisation)
Arthral alignment (241)
Arthrokinematics (304)
Articulo-reduction (242)
Bone setting (243,245)
Cervical joint positioning (184)

Chiropractic manipulation (12)
Chiropractic manipulative technique (245)
Chirotherapy (246)
Coaptation of joint surfaces with concomitant audible release (12)
Conjunct rotation (304)
Corrective spinal care (20)
Correcting subluxation (120)
Dynamic force-induced displacement response (182)
Decompress the joints (247)
Disengage (152)
Diversified-type force application to release the segment at its articulation (144)
Dysfunction (subluxation) in the joints of the pelvis (202)
Facet adjusting (248)
Facilitating neurological and biomechanical integrity (249)
Fix (175)
Flexion distraction manipulation (248)
Force deformation response (250)
Force closure (249)
Functional restoration (20)
Gentle adjusting (251)
Gently relieve the locked subluxation (155)
High velocity facet adjusting (248)
Human readjustments (78)
Joint cavitation (12)
Joint manipulation (41)
Low force/amplitude manipulation (248)
Manual adjustment (101)
Manual cavitation (113)
Manual reflex neurotherapy (253)
Manual-thrust-manipulation (306)
Manipulation (12)
Manipulative treatment (252)
Manipulative surgery (254)
Manipulative therapy (41)
Manipulative techniques (255)
Manipulative treatment (256)
Manipulatory (257)
Manual adjustment (101)
Manual abolition of blockage (108)
Manual cavitation (113)
Manual compression (249)
Manual treatment (258)
Mechanical-assisted manipulation (306)
Mechanical medicine (259)
Mechanical treatment of the nerve centres (101)
Mobilisation (12,19,157,182)
Mobilising (155)
Musculoskeletal manual medicine (292)
Neural manipulation (260)
Neurological mobilisation (261)

Neuromechanical correction (262)
Neuro-mechanical spinal chiropractic management (263)
Neuromeningeal manipulation (260)
Neuromusculoskeletal rehabilitation (264)
Neurosegmental mobilisation (261)
Neurotherapeutic (265)
Neurovisceral manipulation (260)
New manual articular approach (260)
Osteokinematics (304)
Orthokinetics (78)
Orthopedic orthokinetics (78)
Oscillatory mobilization (304)
Osteopathic manipulative therapy (OMT) (266)
Osteopathic manipulative treatment (OMT) (267)
Osteopathic moves (268)
Osteopathic osteological adjustment (268)
Patho-functional morphological model (136)
Readjustment (269)
Reconstructive measure (78)
Reduced (155)
Reduction (183)
Reduction of dislocation (126)
Release of intraarticular pressure (78)
Release the segment at its articulation (144)
Replacement (186) (of joint position - au)
Replacement of displaced spinal segments (112)
Repositioning (126)
Restoration of mobility (126)
Restore function (120)
Restoring manoeuvres (154 p226)
Slipped into place (186)
Specific mobilization (71)
Spinal adjustment (59)
Spinal manipulation (270)
Spinal manipulative therapy (12)
Spinal manual therapy (20)
Spondylotherapy (101)
Springing the spine (270)
Subluxation correction (32,120)
Sustained natural apophyseal glide (SNAG) (271,272)
Therapeutic manipulation (273)
Thrust manipulation (274)
Vertebral adjustment (275)
Vertebral manipulation (276)

APPENDIX 13

PROFESSIONS/VOCATIONS - SYNONYMS AND METAPHORS FOR OCCUPATION FOR THE IMPLEMENTATION OF SMT.

50 terms of which 32 (65%) are from medically referenced.

Atlas therapy (277)
Biofunctional medicine (278) (May include manipulation.- au)
Biokinetics (279)
Bone setting (243,244)
Chiropractic (59)
Chirotherapy (31)
Chirotherapist (31)
Clinical neurodynamics (280)
Kinesiatrics (281)
Manipulator (282)
Manipulative medicine (283)
Manipulative therapy (119)
Manipulative surgery (284)
Manuology (281)
Manual medicine (285)
Manual reflex neurotherapy (286)
Manual therapy (143)
Manual treatment (258,287)
Mechanical medicine (259)
Mechanical therapy (287)
Mechano-therapy (288)
Mechanotherapeutics (289)
Modern orthopaedic manual therapy (289)
Musculoskeletal manual medicine (290)
Musculoskeletal manipulative medicine (291)
Musculoskeletal medicine (289)
Naprapathy (259)
Neural therapy (292)
Neuromusculoskeletal medicine (86)
Neurotherapy (253)
New vertebral medicine (293)
Orthomanual medicine (294)
Orthopaedic manual physical therapy (295)
Orthopaedic Manual Therapy (288)
Orthopedic medicine (5)
Orthopedic orthokinetics (78)
Orthopractic (281)
Osteopathic manipulative medicine (296)
Osteopathic Manipulative Therapy (OMT) (297)
Osteopathic manipulative treatment (OMM) (298)
Osteopathy (299)
Physiatry (300,301,302)
Physical medicine (5,289)

Spinal manipulation (79,81,97)
Spinal manual therapy (8)
Spinatology (159)
Spondylotherapy (101)
Vertebral medicine (293)
Vertebroneurology (303)
Veterinary chiropractic (308,309,313,314)

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