TEACHING THE PRINCIPLES OF OSTEOPATHY IN A MODERN CONTEXT

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The modern context?

As the profession matures, it grows, it becomes more integrated in national health systems ... and more accountable

- Best practice, evidence-based management
- Clear communication and informed consent
- Graduates are critical thinkers and continue to learn and change according to best evidence

Evidence, critical thinking, & osteopathy

- Why this topic again??
- Evidence-informed practice aims to provide best patient care
- Promotes the positive development of osteopathy for the benefit of patients and practitioners
- Lack of engagement with EBP approaches by the profession will threaten the adoption and longevity of the profession

What attributes & capabilities do modern osteopathy graduates need?

- Patient management skills
  - Examination, diagnostic & treatment planning
  - Manual treatment skills, other management
  - Communication - consent
  - Clinical information management (case notes)
- Able to work with other disciplines
  - Shared care, interprofessional practice

  Evidence-informed, critical thinking
  - Evidence-savvy; able to search, retrieve, appraise & implement new evidence
  - Reflective, critical thinkers, life-long learners; appraise and integrate new knowledge

What should we emphasize in the modern osteopathic curriculum?

- Osteopathic principles
- Critical thinking
  - Evidence-base for effectiveness of treatments
  - Evidence for plausible therapeutic mechanisms
- Biopsychosocial approach to management
- Patient-centred care
  - Good communication – particularly consent
  - Shared care – Inter-professional practice, active role in management for patient
- Use of valid risk & outcome measure tools (PROMS)

This presentation

How do we integrate modern concepts and critical thinking into osteopathic teaching without losing the distinctiveness of osteopathic principles?

- Content – what are osteopathic principles and what do we need to emphasize in a modern curriculum?
- Delivery (curriculum & pedagogy) – what is the best way to teach osteopathy students to integrate critical thinking with osteopathic principles?

Illustrate with examples from the VU Osteopathy program
Content – ‘osteopathic’

Not the purpose of the presentation to discuss what is the ‘osteopathic’ body of knowledge, but ...

Are there agreed sets of osteopathic principles? Or osteopathic practice?

... no clear agreement

Teaching traditional principles

Students need to ...
- Understand the history and context of the development of the profession (the ‘culture’ of the profession)
- Need to be aware of current beliefs and perspectives in the profession

... but with the proviso that they
- Acknowledge these are guiding principles sometimes without clear supporting evidence
- Understand that the profession has always been changing and evolving

Osteopathic models need reappraisal

Students should understand that principles & concepts are evolving and it is OK to question them

Osteopathic models need reappraisal

- Need to review traditional principles & concepts in relation to modern evidence
- Discussion of likely physiological mechanisms
- Reflection on ‘somatic dysfunction’ and the reliability of palpation

Each country and School has their own ‘flavour’, ‘culture’, and interpretation of osteopathic principles

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Content – ‘osteopathic’

- Four Kirksville principles
- “Classical” Littlejohn principles
- “Three pillars” – parietal, visceral, cranial
- Models of osteopathic intervention
- Bioenergetic, OCF

Many different perspectives but most would agree on the importance of
- Holism (physical & biopsychosocial)
- Interconnectedness of the body
- Treatment of the body framework with hands-on techniques

Traditional models of osteopathic concepts are ageing

- Overly biomechanical, biomedical
- Inconsistencies with modern pain science
- Too little emphasis on psychosocial factors
- Passive approaches are emphasised

Students should understand that principles & concepts are evolving and it is OK to question them

Biological mechanisms

- Tissue healing & adaptation
- Range of motion?
- Fluid flow & drainage?
- Mechanotransduction?

Psychological mechanisms

- Reassurance
- Positive messages
- Reduction in fear
- Cognitive – understanding pain
- Encouragement to be active
- Patient empowerment

Neurological mechanisms

- Modulation of pain
- Sensorimotor integration?
- Autonomic?

A Biopsychosocial model of therapeutic mechanisms

- Psychological
- Psychosocial
- Manual Therapy
- Patient Management

Top down

Bottom up

What doctors practise can be misunderstood. We look for best consensus recommendations from high-quality clinical practice guidelines, systematic reviews.

Tissue healing & adaptation
- Range of motion?
- Fluid flow & drainage?
- Mechanotransduction?
Teaching traditional principles

Introduce & discuss traditional osteopathic principles

+ Regularly revisiting these principles throughout the course

Reflect on strengths & possible shortcomings of these principles

+ Progressively developing these skills throughout the course ... and applying them

Develop student skills and create the environment to critically appraise principles & practice

Delivery (curriculum & pedagogy)

1. Scaffolded throughout the curriculum

- Poor student uptake if isolated to a single subject or year level

- Need to span all year levels and progressing build knowledge and skills

Aspects to emphasise:
- Critical thinking
- Evidence-based for effectiveness
- Evidence for mechanisms
- Biopsychosocial approach
- Patient-centred care

2. Inquiry based learning – a variety of active teaching approaches including case-based learning (CBL), problem-based learning (PBL), simulated patients

Aspects to emphasise:
- Critical thinking
- Evidence-based for effectiveness
- Evidence for mechanisms
- Biopsychosocial approach
- Patient-centred care

3. Needs to be assessed

4. Needs to be practiced in the teaching clinic

Aspects to emphasise:
- Critical thinking
- Evidence-based for effectiveness
- Evidence for mechanisms
- Biopsychosocial approach
- Patient-centred care

1. Scaffolded throughout curriculum

Osteopathic Clinical Skills units

- Yellow flags (psychosocial risks)
- Communication
  - Practice informed consent for HV/LA
  - Ongoing consent and patient information when working with student peers
- Patient-centred & shared care
  - “What do you hope to achieve from the treatment”
  - Exercise prescription

Aspects to emphasise:
- Critical thinking
- Evidence-based for effectiveness
- Evidence for mechanisms
- Biopsychosocial approach
- Patient-centred care

Osteopathic Clinical Skills

- Reference to traditional principles
- Review of likely physiological mechanisms
- Overview of Clinical Practice Guidelines and levels of evidence for treatments

Aspects to emphasise:
- Critical thinking
- Evidence-based for effectiveness
- Evidence for mechanisms
- Biopsychosocial approach
- Patient-centred care
Evidence-seeking and appraisal tasks imbedded in clinical activities (clinic)

- EBP tasks associated with patient care
- Modelling & support of EBP by clinicians
  - Selection of clinicians
  - Training of clinicians

Aspects to emphasise:

- Critical thinking
  - Evidence-base for effectiveness
- Biopsychosocial approach

Diagnosis model used in clinic

Formulation of a diagnosis

- A tissue-based diagnosis is not always appropriate
- Needs to reflect the growing importance of biopsychosocial factors
- Pain processes
- Reflect the key biomechanical & ‘osteopathic’ factors
- Diagnosis needs to be readily communicable to third parties
  - General practitioners
  - Other allied health practitioners
  - Third party insurers

Two components of model:

1. Diagnosis
   - Brief, standard nomenclature
2. Clinical impression
   - Narrative description, includes
     - Likely pain process
     - Pathological factors and/or
     - Biomechanical (or other osteopathic) factors and/or
     - Psychosocial factors

Diagnosis - Specific or nonspecific pain?

A judgement call ... not necessarily clear-cut.
Acute Right lateral Shoulder Pain

Due to (suspected) Rotator cuff tear

Acute right lateral shoulder pain due to suspected rotator cuff tear.

Chronic nonspecific low back pain

Chronic nonspecific low back pain (ICD M54.5)

Chronic primary musculoskeletal pain (ICD-11 MG30.02)

A judgement call ... not necessarily clear-cut

Chronic spinal pain is usually regarded as pain with "nonspecific" cause.

Chronic nonspecific neck pain

Radiating to the lateral upper arm

Nociceptive / Central sensitisation / Neuropathic

Marked tenderness of trapezius and cervical muscles

N/A
Amanda is a 54 year old female landscape gardener presenting with chronic progressive nonspecific neck pain with referral to the right scapular and upper arm. Amanda’s pain is multifocal and likely a mix of nociceptive and non-nociceptive in nature, with referred nociceptive pain from suspected lower cervical facet joints. Amanda displays marked tenderness over her right rhomboid and trapezius muscles. Amanda’s complaint is likely unrelated to the minor cervical degenerative changes seen on X-ray. Her relatively increased and inflexible thoracic kyphosis and resultant head forward posture may predispose and contribute to mechanical strain and irritability of the lower cervical spine. Amanda demonstrates substantial misinterpretation of her neck pain and catastrophises about it, which likely exacerbates her pain and guarding behaviour.

### Evidence-seeking and appraisal tasks

**imbedded in clinical activities (clinic)**

- Exemplified in the supervised clinic

**Outcome measures**

- Risk stratification tools
- Start Back test, Fear avoidance beliefs, Cervical sensation inventory
- Generic (MSK-HQ) or region specific
- Pain and function

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### Summary

Evidence-based practice, critical thinking can be taught alongside osteopathic principles & models

- Students can appreciate & reflect on osteopathic concepts
- Also feel empowered to critique principles and integrate new evidence

**Critical thinking & EBP skills be**

1. Scaffolded throughout the curriculum
2. Use inquiry based learning (CBL, PBL)
3. Assessed throughout the course
4. Practiced in the teaching clinic
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Thank you

Questions?

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