THE OTHER SCIENTIFIC WAY TO MEASURE THERAPEUTIC EFFECT

Rik Hoste DO
“Find and remove the cause, then the effect will disappear.”

Still DO 1910
“Osteopathic treatment is scientific in that it recognizes the relation between cause and effect in disease, and seeks to remove the cause rather than to treat the symptoms - the effect of disease.”

Smith DO 1919
CAUSE - EFFECT frame of thinking
belongs to a REDUCTIONISTIC concept

OSTEOPATHIC MEDICINE
belongs to a HOLISTIC concept
REDUCTIONISM
quantitative data

HOLISM
qualitative data
REDUCTIONISM

**measurable influences affect measurable outcomes**

HOLISM

a whole consists of multiple interdependent segments and cannot be broken down into separate measurable segments
REDUCTIONISM

simplifying the situation

HOLISM

overviewing the situation
REDUCTIONISM

frame of reference = the object

HOLISM

frame of reference = the subject
REDUCTIONISM

concept of truth

HOLISM

concept of probability and meaningfulness
- Why do we so often use this cause-effect way of thinking?
- What is the meaning of holism?
- What are the consequences of a holistic concept for
  - Scientific osteopathic research?
  - Osteopathic training?
  - Osteopathic diagnostics?
  - Osteopathic treatment?
CAUSE-EFFECT way of thinking

tunnel vision
easiest solution

It works as long as you are in the tunnel!
OSTEOPATHIC MEDICINE within a HOLISTIC concept

SCIENTIFIC?
Criteria of ‘science’

logical - objective - systematic
osteopathic medicine is based on
ANATOMY, PHYSIOLOGY, EMBRYOLOGY, ...
Objective

what we treat is objective

(patient, structures, ...)

Objective (patient, structures, ...)
Objective

the parameter \textit{(mobility)} we use, is often not testable (function – dysfunction)
Objective

before treatment

effects and effectiveness are testable

after treatment
osteopathic diagnosis and treatment are conducted systematically
What is the meaning of holism in relation to science?

How do we define health and disease in a holistic scientific concept?
Defining health and disease

by means of standards
Standards in a reductionistic concept

**Blood Test Detects**

**Onset of Alzheimer’s**

*a Decade Early*

Blood pressure, cholesterol, liver enzymes, ...
Standards in osteopathic medicine

ptosis of the kidney, hypertonia of the piriformis, external rotation of the left temporal, ...
Standards fit in a cause-effect relationship

HOLISM is more than

- standards
- a full body diagnosis
- treating structures that are not directly involved in the complaints of the patient
Holism is the whole

the WHOLE is the PATIENT
patient = complex adaptative system

chaotic
not calculable
Holism for

SCIENTIFIC OSTEOPATHIC RESEARCH

- Basic Research
- Clinical Research
BASIC RESEARCH concerns TECHNIQUES for

- diagnosis
- treatment
BASIC RESEARCH in OSTEOPATHIC DIAGNOSTICS

reliability studies

focus: intra-examiner reliability
(same patient, same structure, same osteopath)
BASIC RESEARCH in THERAPEUTIC TECHNIQUES

effects of osteopathic techniques

Can we influence a certain parameter through a certain MANUAL TECHNIQUE?

SHAM TECHNIQUE
CLINICAL RESEARCH in OSTEOPATHIC TREATMENT

effectiveness of the whole treatment

PRAGMATIC RCT
CLINICAL RESEARCH in OSTEOPATHIC TREATMENT

osteopathic treatment (black box design) versus no treatment - standard treatment

SHAM TREATMENT DOES NOT EXIST
Holism in OSTEOPATHIC EDUCATION

- No modular training
- Focus on high level background and knowledge of basic sciences
- Focus on the principles of the techniques, and not on the technical aspect only
Holism in OSTEOPATHIC DIAGNOSIS

symptoms belong

- partly to the disease (~ differential diagnosis)
- partly to the patient
Holism in OSTEOPATHIC DIAGNOSIS

inhibition tests

≠ defining the cause
= defining what to do NOW for this specific patient to make him/her function better!

what will I treat?
Holism in OSTEOPATHIC TREATMENT

how will I treat?

- direct or indirect techniques
- global or localized techniques
Holism in OSTEOPATHIC TREATMENT

how will I treat?

parameter = typology of the patient
OSTEOPATHIC MEDICINE

WHERE

SCIENCE

MEETS

HOLISME

Rik Hoste DO