



# **Ethical and pedagogical reflections on learning didactics in osteopathic diagnosis**

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## 1 Foreword on presentation procedure

This text could serve as a support for workshops highlighting the presented reflections, or else for a more global and theoretical presentation dealing with the totality of the reasoning.

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## 2 Definitions

### 2.1 Ethics, professionalism

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*Ethics: a science that deals with regulatory principles governing action and moral conduct*

Definition of professionalism:

Professionalism can be defined as the mobilization of all necessary and useful means to serve the interest of the purpose of the targeted profession.

“When applied to health practice it can be defined in the interest of the patient, whereas, when applied to teaching, it should be defined in the interest of the learner”

*professionalism can be defined through the implementation of necessary and useful means to the interest of the patient.*

Professionalism shall be considered, herein, as the prime ethical concern in terms of the training and practicing in osteopathy.

### 2.2 Definition of osteopathic diagnosis

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Definition of texts (reference for activities and skills, Official Journal of December 15, 2014):

**Osteopathic diagnosis:**

Osteopathic diagnosis includes both diagnosis of opportunity and functional diagnosis:

- diagnosis of opportunity: an osteopath's approach which consists in identifying warning signs and red flags justifying a medical opinion prior to osteopathic care;
- functional diagnosis: an osteopath's approach which consists in identifying and prioritizing osteopathic dysfunctions as well as their interactions in order to decide on the most appropriate osteopathic treatment for the improvement of the patient's health.

### **Osteopathic dysfunction:**

The deterioration of mobility, viscoelasticity or texture of the somatic system components.

This could be accompanied or not by a painful sensitivity

*Opportunity diagnosis* is quite clearly defined.

*Functional diagnosis* of osteopathic dysfunction calls for some clarifications:

The concept of degradation is complex because it enforces a standard, a norm.

Mobility in the meaning of the displacement of a solid and the deformation of its components obeys fixed and invariable laws, Newton's laws of motion.

In this respect, the degradation of mobility can only be understood as a degradation thereof with respect to the interindividual norm or one that pertains to an individual, in particular, of characteristics conditioning the articular and visceral dynamics.

The definition of these norms is currently not available, therefore, the risk, herein, to set standards that are far from the scientific reality is quite high.

One of the ways out of this intellectual problem is to reason around measurable intellectual or environmental variables, which are known to have influence on the dynamics of the systems.

Research in this area should, accordingly, have as its principal objective, the analysis, understanding and definition of the possible standards for these variables and the interdependence among them.

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## 3 Ethics, osteopathic and didactic practice during training

### 3.1 Which ethical approach for the practice?

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Preparing students for a professional practice implies that the teaching of identifiable characteristics in the functional dysfunction or in a patient and, the tools to identify them at the disposal of the practitioner, must be based on correlated scientific literature which is jointly applicable to both pathophysiology and therapeutics. .

(Inductivism is perfect for a new field of science or research, however, osteopathy must, at the very least, go through the stage of falsificationism => put osteopathic theories to test and encourage critical thinking in the learner)

Decision-taking has to be based on an ethical approach: the objectives of the chosen stages in clinical examination must be in a mutual respect with, on the one hand, scientific data on the reliability of the tests or the elements used, the known data on the physiopathology of functional dysfunctions and, the therapeutic possibilities to which they may lead.

### 3.2 2 Which ethical approach for the teaching?

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#### 3.2.1 Valid and reliable contents

Priority should be given to the learning of diagnostic tools for complete clinical examination which are:

- recognized for their reliability, remaining open to non-validated (though potentially innovative and promising) elements, but passing them on as such.
- recognized for their utility: identification of major scientifically proven features of functional dysfunctions, and linked to effective solutions.

#### 3.2.2 Ethics and pedagogy:

Professionalism in training pedagogy can be defined as the mobilization of all necessary and useful means to the interest of the learner.

It is therefore necessary to prioritize those pedagogical methods that are known to be effective.

Which are the effective methods?

- Engineering which is based on general objectives broken down into specific objectives,

- Course sessions employing educational tools adapted to both the objectives and the learners. In general, the classic pedagogical triptych is quite effective: explain, demonstrate and, above all, assigning tasks and having learners do them: the work of the student is primordial. Learning through games is increasingly being recognized, however, it has its limits.

## 3.3 Applied didactics

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### 3.3.1 General objectives:

The general objectives comprise the acquisition of skills.

A number of skills acquisition levels have been outlined and proposed, among which 4 do generally come up together: apprenticeship, mastery, expertise and excellence.

- Mastery can be defined as the ability to mobilize one's resources in most routine situations.
- Expertise is the ability to mobilize one's resources regardless of the situation confronted with
- Excellence is a capacity to innovate solutions to complex situations.

To consider that, the training provided must set its general objective to meet the mastery level requirements, seems to be quite reasonable.

Skills whose mastery is targeted, by the end of the course:

Six skills have been referenced by the French Ministry of Health.

The theme of the Osean congress targets the first one: assessing a situation at hand and preparing an osteopathic diagnosis.

Elements of this major skill that can be drawn-up are:

- Performing opportunity diagnosis:
  - Identify a case with absence of opportunity (including, in particular, the identification of red flags)
  - identifying a case with relative opportunity
  - identifying a case with absolute opportunity
- Perform functional diagnosis:
  - Evaluating the characteristics of functional dysfunctions and their causes. (terms from the reference document)

This is achieved by conducting an interview and a clinical examination.

From the clinical examination it is possible to bring out one important and particular element of practical skill which is the mastery of the test gesture on patients.

This element is based on the mastery of a set of fundamental principles: performance factors and skills of the practitioner.

**Mastering these skills on the patient, during the last year of the course, constitutes the general objective of the training.**

### 3.3.2 Intermediate objectives

Before encountering the patient, the student must validate these skills in virtual situations or during observation phase (3<sup>rd</sup> and 4<sup>th</sup> year of study)

### 3.3.3 Specific objectives:

#### 3.3.3.1 Initial specific objectives

In order to master these skills, the student must first master resources regarding to knowledge and know-how:

##### 3.3.3.1.1 *Knowledge*

- Become acquainted with the red flags and the inherent warning signs.
- Become acquainted with functional dysfunction characteristics
- Become acquainted with the corresponding features of the skills of other health professions.
- Become acquainted with the skills of other health professions.
- Become acquainted with the fundamental bases of the pathophysiology of functional dysfunctions (including epistemology),
- Become acquainted with the basic fundamentals of existing therapies for functional dysfunctions,
- Become acquainted with the reliability and validity of the interrogation elements and the tests used, epistemology of manual therapy acts.
- As regards test gestures: the student is required to master the fundamental knowledge of this gesture: performance factors and necessary aptitudes.

#### **Didactic reflection:**

Teaching tools should include a set of reasoned and referenced knowledge elements, following an epistemology that is also referenced. In particular, stating the level of proof of advanced knowledge seems indispensable for the structuring of a professional practice. Knowledge acquired from a mere review of literature does not have the same value as the inter-professional consensual knowledge, nor does knowledge resulting from an isolated practice.

All elements concerning diagnosis must be addressed by clearly stating the reliability and the validity of each one in the diagnosis.

Tests must be taught in such a way as to include their indications, contraindications, their validity and their reliability. Likewise, therapeutic acts should be taught along with their indications, contraindications, and their observed therapeutic effects.

Pedagogical tools that are useful and necessary for obtaining this type of knowledge are, essentially, lectures and clear teaching aids, at most exhaustive, written down and transmittable to students = Explain.

### 3.3.3.1.2 *The know-how*

Mastering the application of each fundamental element in the realization of necessary tests for the physical examination of a patient, exercised on a guinea pig: for each step of a gesture:

- Positioning a patient
- Positioning oneself
- Directing one's gesture
- Managing the force applied

And, obviously,

- Evaluating the raw response to the test

Didactic reflection:

Session's pedagogy:

- Explaining, showing
- assigning tasks and having learners do them ~~Having things done (by students)~~: in order to achieve a proper grasp on fundamentals, the specific objectives must remain simple, observable and strictly adhered to: collective, guided and orchestrated sessions.

### 3.3.3.2 *Specific intermediate objectives:*

The student will have to mobilize all his/her resources in virtual problem situations.

#### 3.3.3.2.1 *Mobilizations of knowledge:*

- Understanding the links between stated raw alarm signs and red flags
- Understanding the links between the features of functional dysfunctions or of individuals and the means for identifying them: symptoms, physical signs and other clinical manifestations.

#### **Didactic reflection:**

Useful and necessary pedagogical tools for making students understand are personal or group activities, in which the student is actor of his/her reflection: these include subjects from annals, studies on clinical situations = demonstrating, assigning tasks and having learners do them.

Tutorial sessions focused on situational problems during professional activities, guided and targeted around professional skills, seem to be relevant.

Caution must be observed on the shortcomings of "problem situations" without lines of work.

Regarding the understanding of complex knowledge, the use of games could be a good complementary learning tool.

#### 3.3.3.2.2 *Mobilization of the know-how*

- Mastering gestures in virtual situations
- Applying tests and interpreting their results in an osteopathic diagnosis

#### **Didactic reflection:**

In the 3rd year:

The objectives for gestural improvement require an analysis of the practice by assigning tasks and having learners do them, tools for this can be:

- Inter-student assessment courses.
- Self-assessment courses

Games playing as a complement.

In the 4th year:

With the patients:

Assessments and self-assessments during the training period, with patients.