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Editorial

Core competencies in osteopathy: Italian register of osteopaths proposal

Background

The concept of competence is central to the professional system to ensure practitioners possess an adequate profile that enables them to effectively perform their role. In this editorial, we build on the concepts of competence and clinical reasoning to propose a core competence framework for osteopathy in Italy, which can inform current legislative development and future professional training and education. Apart from the specific context of Italy, this framework may also play a critical role in the development of professional education and regulation worldwide. The aim of this editorial is to initiate critical discussion on the topic of professional competence amongst educators, regulators and practitioners in the field of osteopathy.

In the literature, there are different definitions of competence, including the commonly cited one proposed by Epstein and colleagues [1] - "*professional competence is the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served*". In the health professions, the terms competence and competencies are used interchangeably, on occasion to describe the same concept, at other times to describe different aspects of professional practice. Competence is based on clinical skills, scientific knowledge, and moral development. It includes cognitive, integrative, relationships and affective/moral functions in the process of patient care. In contrast, competency is related to the use of a structured set of knowledge, skills, and attitudes in a specific professional context, or in professional training. Therefore, professional competence is more than a demonstration of isolated competencies; it is the ability to manage ambiguous problems, tolerate uncertainty, and make decisions with limited information [2]. In the health professions, professional knowledge is centred on the application of core knowledge through clinical reasoning, incorporating scientific, clinical, and humanistic judgment, and metacognitive strategies which enable practitioners to identify and address gaps in their knowledge using external resources, such as Evidence Based Practice (EBP) [3]. There is consistency among different healthcare disciplines on the importance of EBP used by clinicians. To this end, recent studies consider it as a competence [4–6] defined as "*the ability to ask clinically relevant questions for the purposes of acquiring, appraising, applying, and assessing multiple sources of knowledge within the care context for a particular patient, group, or community*" [7,8]. Skills relate to profession-specific technical procedures such as a clinical examination or specific therapeutic intervention, and attitudes based on emotional intelligence, tolerance of ambiguity and anxiety, and metacognitive capabilities designed to monitor one's own thinking. These different dimensions of professional competence should inform the process of clinical reasoning and patient care [9].

Clinical reasoning, including its underpinning cognitive, metacognitive and perceptual processes, build on the foundation of EBP competence. Traditional models of clinical reasoning in the health professions build on the best evidence available and they refer to a cognitive practitioner-centred process whereby practitioners gather information about their patients, evaluate that information and develop treatment and management plans taking into account relevant research literature and clinical guidelines [10]. Clinical reasoning is a critical capability in autonomous professional practice, and it draws heavily on professional knowledge and decision-making strategies that are specific to each health profession [11]. Consequently, pre-registration and post-qualifying education and training of healthcare professionals should be based on the core competence profile required for that specific professional context [1,12]. Regarding osteopathy, and considering the specific case of Italy, recent developments in legislation designed to regulate osteopathy as a health profession require the development of a document that clearly defines the core competencies in osteopathy. This document would then become central to osteopaths' professional profile and training in Italy.

Osteopathy

Osteopathy offers a patient-centred system of evaluation, treatment and management that can be applied across a wide range of medical conditions. It is traditionally based on the principle that the structure and functions of the body are closely integrated, and that a person's well-being requires the neurological, musculoskeletal, circulatory and visceral structures to work in harmony [13]. Authors in the field of osteopathy, argue that the application of osteopathic principles, the structural diagnosis and the use of osteopathic manipulative treatment (OMT) in patient care, is what differentiates osteopathy from other health professions. OMT aims to restore and maintain a person's body to its overall natural state of well-being through homeostasis [14]. This process is underpinned by three key osteopathic principles, i.e., body unity, structure-function interrelationship and self-regulation [15]. It has been argued that these principles incorporate current medical and scientific knowledge, with primary focus on osteopathic clinical research when applying the principles to patient care [16].

In some countries, the osteopathic practitioner's approach to diagnosis and treatment is underpinned by five models of structure-function interrelationship, i.e., biomechanical, neurological, metabolic, respiratory-circulatory and behavioural models [17,18]. These models can be used in combination to provide a

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framework, which enables practitioners to critically evaluate the significance of somatic dysfunction or other clinical findings obtained through both objective and subjective clinical examinations [19]. Authors in the field of osteopathy, have proposed that the combination chosen is adapted to the patient's differential diagnosis, co-morbidities, other therapeutic approaches and response to treatment [20].

Arguably, clinical reasoning in osteopathy may be underpinned by these models of structure-function interrelationship and within a continuum between practice and evidence from technical rationality (a practitioner-centred, physical, biomedical and biomechanical based approach) to professional artistry (a patient-centred, behavioural based approach) [21,22]. We propose that the goal of clinical reasoning in osteopathy is to identify, prioritise and deliver osteopathic care through a critical application of these five osteopathic models. This may be achieved through a multi-stage reasoning process that usually begins with a biomedical approach to identify red flags for serious underlying pathology, and culminates in specific osteopathic diagnostic approaches that include the judicious use of palpation [23]. Diagnostic palpation is an important part of an osteopath's clinical competence profile, and together with the critical evaluation of osteopathic principles, plays a significant role in osteopathic clinical decision making process [24]. It has been argued that the specific structure-function interrelationship models, grounded in osteopathic principles, differentiates osteopathic clinical reasoning from other health professions and enable osteopathy to be regarded as a health profession and not a technique [22,25].

Osteopathic care is centred on important health needs of the population: prevention, promotion, treatment and support. Although these areas are in common with other health professions, mostly in the field of physical medicine and rehabilitation, strong multidisciplinary collaborations between osteopaths and other health care practitioners are required to overcome preciously guarded professional boundaries if the patients' best interests are to be served [26,27]. Higgs and Jones [28] have proposed that clinical reasoning should be interdisciplinary in order to 'transcend the boundaries of professional groups, with their diverse backgrounds, and includes patients as part of multidisciplinary teams'. On this point, we propose that osteopaths need to be play a greater role in multidisciplinary decision making and represents added value for health care [29].

The Italian Register of Osteopaths (ROI), the most representative osteopathic professional association in Italy, decided to produce an Italian Core Competence Framework in Osteopathy, based on the Italian health care system.

The ROI Proposal of Italian Core Competence Framework in Osteopathy

'Experts working group'

A Core Competence Framework is a conceptual model to develop core competences based on local, political, social, and economic circumstances [30] and may not simply be translated from the existing versions [31]. The ROI, has been playing an active role in the recognition of osteopathy as a health profession in Italy, and has created an 'experts' working group to develop a ROI Proposal of Italian Core Competence Framework in Osteopathy, to support the ongoing legislatorial process. Subsequently, this work will be submitted to the national and international scientific osteopathic communities for their approval through an interactive consensus process. The 'experts' working group is composed of 8 osteopaths, with at least 10,000 hours of professional practice in the fields of medical education, scientific research, clinical practice and training and two medical education experts from the Italian Society of Medical Education (SIPeM) [32,33]. The Guilbert framework was used to develop the Italian osteopathic core competence framework [34]. It provides a top-down model and defines "competence domains" as "functions" and "competencies" as "activities" allowing one to define the role of profession, within the healthcare system, based on the health needs of the population.

The meaning of functions and activities

The Guilbert framework considers that health professionals give different meanings to the words "knowledge", "skills" and "attitudes" when discussing educational issues and this ambiguity often leads to incomprehension. Educational objectives need active non-ambiguous verbs to achieve better communication between teachers and learners and to assess that complexity. For these reasons, Guilbert defines functions and activities as professional

Table 1
Function 1: Health promotion and prevention.

Function 1. Health Promotion and Prevention The osteopath must be able to:
1.1 Recognize, within an inter-professional collaborative team, the biopsychosocial context in order to identify risk factors for health.
1.1.1 Recognize the centrality of the person in the healthcare system and in health promotion, emphasizing the person's self-reflection on his/her health.
1.1.2 Establish a symmetrical relationship between osteopath and community in order to raise awareness of healthy lifestyles.
1.1.3 Encourage the community to express its ideas about possible health promotion practices by involving it in decision making during the development of a long-term self-promoting health plan.
1.1.4 Identify the educational needs of the community on prevention issues, within an inter-professional collaborative team.
1.1.5 Evaluate the community's potential adhesion to adaptive health practice (AHP).
1.1.6 Formulate health educational strategies and preventive interventions within an inter-professional collaborative team.
1.1.7 Inform the community about the value of managing adaptive loads according to osteopathic principles and models in order to preserve health.
1.2 Educate the community to develop healthy behaviors.
1.2.1 Develop the community's critical thinking about superstitious health beliefs.
1.2.2 Promote, through resilient behaviors, biomechanical, neurological, respiratory-circulatory, metabolic, and behavioral self-regulation.
1.3 Promote community empowerment.
1.4 Promote health through an osteopathic manipulative treatment (OMT) focused on adaptation.
1.4.1 Prevent the alteration of adaptive capability of the person related to disease, within an inter-professional collaborative team.
1.4.2 Explain the biological, psychological and social aspects related to pain from a biopsychosocial point of view.
1.5 Educate the community to identify variations of its adaptive capability.
1.5.1 Educate the community to identify somatic dysfunction related signs and symptoms that could affect its health.
1.5.2 Educate the community to identify ergonomic lifestyle and behavior that could affect its health.
1.6 Motivate the community to practice exercise and adopt a healthy eating lifestyle, within an inter-professional collaborative team.
1.7 Evaluate the adherence of the health promotion plan to the goals of the community.
1.8 Participate in inter-professional screening and prevention campaigns.

competences and professional tasks as learning outcomes, used to define the core curriculum [35]. Based on Bloom's taxonomy [36], he suggests using the expression intellectual skill (or competence) as meaning “a rational decision or act”. Sensorimotor skill (or competence) would replace “skills” as presently used and cover only “acts which require a neuromuscular coordination”. Interpersonal communication skill (or competence) would replace “attitude(s)” and be limited to “verbal and non-verbal relation between persons”. The level of validity of assessment of learners' competencies is linked to the clarity of learning objectives [37].

Based on this model, the ROI proposal for an Italian Core Competences Framework in Osteopathy has been developed on functions and for each function, activities are described using active verbs. According to osteopathic principles, scientific literature and a population needs-based approach, the seven functions of the osteopath are: health promotion and prevention, osteopathic care, therapeutic education, scientific research, education, continuing professional development and quality and management. For each function, specific activities have been defined that represent the main osteopathic competencies described using active verbs. Examples of the first three functions are reported in Tables 1–3. The same process has been applied to the remaining four functions which will appear on the official ROI document.

Future developments

This work represents the ROI proposal of Italian Core Competence Framework in Osteopathy, based on the Italian health system. The next step will be to seek a consensus statement between national and international osteopathic scientific community on this document, through a discussion group and to publish this work as a position paper.

Table 2
Function 2: Osteopathic care.

Function 2. Osteopathic Care The osteopath must be able to:
2.1 Base clinical reasoning on osteopathic principles and models.
2.2 Identify health needs.
2.2.1 Welcome the person and any caregivers considering their family and their social context.
2.2.2 Identify the person's requests and expectations.
2.2.3 Communicate and interact with the person or caregivers and understand the needs for osteopathic care according to the biopsychosocial model.
2.2.4 Obtain written consent for osteopathic treatment by highlighting the clinical rational, benefits and possible risks.
2.3 Collect useful elements for osteopathic evaluation.
2.3.1 Elicit a comprehensive history to gather biopsychosocial and clinically relevant data from the patient's narrative, the caregiver, other professionals or members of the healthcare team, and associated documentation.
2.3.2 Take into account the diagnosis of the physician and other healthcare professionals in the osteopathic evaluation of the patient.
2.3.3 Manage confidential data according to current regulations.
2.3.4 Record data, documents and information regarding the person's health in the osteopathic record.
2.3.5 Identify the indications and contraindications for osteopathic treatment based on the person's needs and expectations whilst interpreting collected data in order to guarantee the patient's safety.
2.3.5.1 Carry out a physical examination to identify any clinical condition which could contraindicate osteopathic treatment.
2.3.5.2 Consider the contribution of other professionals to manage the clinical case in an inter-professional context.
2.3.5.3 Communicate to the patient the outcome of the osteopathic evaluation.
2.4 Make an osteopathic diagnosis.
2.4.1 Carry out an osteopathic physical examination through observation and palpatory skills to guide clinical reasoning.
2.4.1.1 Formulate osteopathic diagnostic hypotheses according to osteopathic principles and models.
2.4.1.2 Perform static and dynamic postural evaluation related to osteopathic models.
2.4.1.3 Perform visual and palpatory evaluation to detect any alterations in temperature, tissue texture, asymmetries, movement restriction and tenderness in regard to the patient's needs.
2.4.1.4 Identify, through osteopathic tests, alterations of the structure/function relationship in relation to biomechanical, circulatory-respiratory, neurological, energetic-metabolic, behavioral self-regulation systems.
2.4.1.5 Evaluate general adaptation syndrome fascial system components through osteopathic palpation by detecting functional alterations associated with allostatic overload.
2.4.1.6 Evaluate fascial system components related to local adaptation syndrome through osteopathic palpation by detecting clinically relevant somatic dysfunctions.
2.4.1.7 Make the osteopathic diagnosis based on the general and local evaluation in accordance with the osteopathic and biomedical reference nomenclature.
2.4.2 Evaluate the indication for osteopathic treatment, identifying the clinical relevance of somatic dysfunction (or other osteopathic outcomes) in relation to the multidimensional components of the patient's needs.
2.4.3 Communicate to the patient the osteopathic diagnosis.
2.5 Plan the osteopathic treatment.
2.5.1 Define independently or in collaboration with other professionals the goal of osteopathic treatment in agreement with the patient and/or caregivers.
2.5.2 Develop an osteopathic therapeutic patient-centered plan coherent with the clinical context.
2.5.3 Select appropriate osteopathic models, approaches and techniques for the patient and the clinical context.
2.5.4 Share with the patient and/or the caregivers the osteopathic treatment plan and any variations thereof, including clinical uncertainty.
2.5.5 Record the treatment plan and periodic updates in the osteopathic records.
2.6 Deliver the osteopathic treatment.
2.6.1 Deliver osteopathic manipulative treatment (OMT) safely and respecting the dignity and sensitivity of the patient through selected osteopathic techniques.
2.6.2 Monitor the patient's state of health during treatment.
2.6.3 Advise the patient with continuous management arrangements regarding lifestyle, nutrition, exercise and ergonomics.
2.6.4 Manage any adverse events.
2.6.5 Record on the osteopathic records the treatment performed and any adverse events.
2.7 Evaluate the outcome of osteopathic treatment.
2.7.1 Evaluate the immediate effects of the technique through osteopathic tests and clinical outcomes.
2.7.2 Manage the occurrence of adverse events.
2.7.3 Share with the patient the evaluation of the outcome of the treatment and its possible continuation.
2.7.4 Record the outcomes of the osteopathic treatment on the osteopathic records.
2.7.5 Plan the follow up by sharing it with the patient and/or caregivers.
2.7.6 Evaluate the appropriateness of the treatment plan, sharing it with the patient and/or caregivers.

Table 3
Function 3: Therapeutic education.

Function 3. Therapeutic education The osteopath must be able to:
3.1 Educate the patient in the self-management of his/her own chronic pathology, within an inter-professional collaborative team.
3.2 Promote patient's perception of his/her own body in order to make him/her autonomous, if possible, in the management of his condition.
3.3 Help patients to discover their strengths, exploiting and reorganizing their own cognitive and emotional energies.
3.4 Identify occupational, ergonomic and postural factors that affect the patient's condition.
3.5 Educate patients about the management of factors that interfere with the normal course of their condition.
3.6 Plan therapeutic education within an inter-professional collaborative team.
3.6.1 Collect information and formulate an evaluation of educational needs.
3.6.2 Share goals with the patient, plan and develop an educational contract.
3.6.3 Promote the acquisition of knowledge and skills.
3.6.4 Evaluate the achievement of shared goals.
3.7 Educate the patient on the proper use of available health, social and economic resources.

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