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Natural and Traditional Medicine in Medical Training: The Need for Effective Curricular Integration

Medicina Natural y Tradicional en la formación médica: necesidad de integración curricular efectiva

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RESUMEN

La Medicina Natural y Tradicional (MNT) constituye una estrategia curricular transversal en la formación médica cubana desde el Plan de Estudio E, en correspondencia con la política de salud nacional que promueve la atención integral con enfoque preventivo y humanista. No obstante, persisten insuficiencias en su implementación práctica, particularmente en asignaturas clínicas como Ortopedia y Traumatología, donde la MNT se aborda de manera marginal, descriptiva y desvinculada de la práctica clínica real. El presente artículo de opinión realiza un análisis crítico sobre esta problemática y argumenta la necesidad de superar los enfoques pedagógicos tradicionales mediante la sistematización de tareas docentes desarrolladoras en las clases taller. Se fundamenta que la clase taller, como forma de organización de la enseñanza que privilegia el aprendizaje reflexivo y la resolución de problemas profesionales, constituye el escenario idóneo para integrar la MNT. Sin embargo, su efectividad depende del diseño de sistemas de tareas que desarrollen la independencia cognoscitiva, estructuradas con principios de sistematicidad y complejidad progresiva. La evidencia científica internacional que respalda modalidades como acupuntura, ozonoterapia y fitoterapia en patologías osteomioarticulares contrasta con la desactualización curricular que limita su enseñanza. Se concluye que la implementación de sistemas de tareas docentes desarrolladoras, fundamentadas en la teoría histórico-cultural del aprendizaje, permite formar médicos capaces de integrar racionalmente la MNT en su práctica clínica como componente de un modelo de atención integral.

ABSTRACT

Traditional and Natural Medicine (TNM) has been a cross-cutting curricular strategy in Cuban medical training since Study Plan E, in accordance with the national health policy that promotes comprehensive care with a preventive and humanistic approach. However, shortcomings persist in its practical implementation, particularly in clinical subjects such as Orthopedics and Traumatology, where TNM is addressed in a marginal, descriptive manner, disconnected from actual clinical practice. This opinion piece critically analyzes this problem and argues for the need to move beyond traditional pedagogical approaches by systematizing developmental teaching tasks in workshop classes. It posits that the workshop class, as a teaching method that prioritizes reflective learning and the resolution of professional problems, is the ideal setting for integrating TNM. However, its effectiveness depends on the design of task systems that develop cognitive independence, structured according to principles of systematicity and progressive complexity. The international scientific evidence supporting modalities such as acupuncture, ozone therapy, and phytotherapy in osteomyoarticular pathologies contrasts with the outdated curriculum that limits their teaching. It is concluded that the implementation of developmental teaching task systems, grounded in the sociocultural theory of learning, allows for the training of physicians capable of rationally integrating Traditional and Natural Medicine (TNM) into their clinical practice as a component of a comprehensive care model.

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The training of general practitioners in the 21st century demands a comprehensive approach that transcends the dichotomy between conventional and traditional medicine. In Cuba, Natural and Traditional Medicine (NTM) has been consolidated as a cross-curricular strategy within Study Plan E of the Medical degree program, in response to the national health policy that seeks to guarantee comprehensive care with a preventive and humanistic approach [1].

However, shortcomings persist in the practical implementation of this strategy, particularly in clinical subjects such as Orthopedics and Traumatology. Recent research shows that, despite regulatory advances, NTM continues to be addressed in a marginal, descriptive manner, disconnected from real clinical practice [2].

The workshop class, as a teaching method that prioritizes developmental learning and the resolution of professional problems, constitutes a potential avenue for effectively integrating NTM [3]. However, its implementation requires specific systems of teaching tasks that guide students in the application of scientifically sound traditional modalities.

The tension between international scientific evidence supporting modalities such as acupuncture, ozone therapy, and phytotherapy in osteomyoarticular pathologies [4], and their absence in medical curricula, creates a contradiction that limits the relevance of medical training.

This opinion piece critically analyzes the current state of the integration of Natural and Traditional Medicine (NTM) in Cuban higher medical education. It argues for the inadequacy of traditional pedagogical approaches and proposes the systematization of developmental teaching tasks as a way to overcome these limitations.

The article aims to substantiate the need to implement systems of developmental teaching tasks in the workshop classes of clinical subjects, in order to achieve the effective integration of Natural and Traditional Medicine (NTM) in the training of general practitioners.

The gap between policy and practice in medical education

NTM was declared a public health policy in Cuba in 2009 and was formally integrated into the medical degree curriculum [5]. However, recent studies show that its curricular implementation presents structural deficiencies: a descriptive approach, little link with clinical

practice and predominance of the teacher's role over autonomous learning [2].

This situation presents a paradox: while Traditional and Natural Medicine (TNM) is becoming established as a primary healthcare strategy, its teaching remains anchored in transmission models that fail to develop the necessary skills for its effective application. Students "know about" TNM, but they don't know how to "use" it in real clinical situations.

For the author, this gap between political-academic discourse and classroom reality constitutes the main obstacle to achieving effective integration of TNM. In her opinion, it is not enough to simply declare the cross-curricular nature of these topics in curricula; a profound transformation of pedagogical practices is required, one that places the student at the center of the process and confronts them with authentic professional problems where TNM has a defined place in the therapeutic algorithm.

The workshop class as a setting for integration

The workshop class is defined as a form of teaching organization aimed at enabling students to apply the knowledge they have acquired to solve professional problems, thus developing practical skills and independent work abilities [6]. Its characteristics make it an ideal setting for integrating the MNT (Modernization of Teaching and Learning), as it fosters reflective learning, attends to individual needs, promotes decision-making, and develops cognitive independence [7].

However, the effectiveness of this organizational form depends on the design of teaching tasks that create a need to learn, motivate the constant pursuit of knowledge, and guide its reconstruction [8]. Without a system of developmental tasks, the workshop class risks becoming a mere repetitive exercise lacking pedagogical foundation.

In their view, a true workshop should reverse this logic: students, guided by carefully designed tasks, construct their learning through interaction with real or simulated clinical problems. In this sense, it is proposed that the design of teaching tasks should be based on common health situations encountered in primary care, where Traditional and Natural Medicine (TNM) offers valid and scientifically supported therapeutic options.

Scientific Evidence versus Curricular Tradition

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International evidence supports the use of TNM modalities in common pathologies in orthopedic practice. Recent meta-analyses demonstrate the effectiveness of acupuncture in chronic musculoskeletal pain [9]; ozone therapy shows favorable results in knee osteoarthritis [10]; and phytotherapy has documented efficacy in inflammatory joint processes [11].

However, these modalities are not included in the Orthopedics and Traumatology program of Plan E, which only addresses TNM in two specific pathologies. This outdated curriculum contradicts the principle of social relevance and limits the graduate's ability to offer comprehensive therapeutic options to their patients.

The author also emphasizes that the inclusion of these modalities should not be uncritically or merely enumerative. On the contrary, she proposes that their incorporation into programs should be accompanied by a solid scientific foundation that allows students to understand their precise indications, contraindications, mechanisms of action, and place within the conventional therapeutic algorithm.

Toward a System of Developmental Teaching Tasks

The research experience at the Faustino Pérez Provincial Teaching Hospital in Matanzas demonstrates that it is possible to design a system of teaching tasks that integrates Traditional and Natural Medicine (TNM) into the Orthopedics and Traumatology workshop classes [12]. This system is based on:

1) Principle of systematicity: tasks are organized according to the logical structure of the content, establishing relationships between prior and new knowledge.

2) Progressive increase in complexity: from recognition tasks to the resolution of complex clinical cases that integrate Traditional and Natural Medicine (TNM) with conventional medicine.

3) Development of cognitive independence: gradual guidance that allows the student to move from guided execution to autonomous problem-solving, following Vygotsky's concept of the zone of proximal development [13].

The tasks, structured by topic, objective, questions, guidelines, and knowledge invariants, ensure that the student not only "applies" TNM techniques but also understands their scientific basis, indications, contraindications, and their place in the comprehensive therapeutic algorithm.

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Ethical and professional implications

Medical training cannot ignore that the 21st-century patient demands comprehensive therapeutic options. Physicians who are unfamiliar with Traditional and Natural Medicine (TNM) or who apply it without scientific rigor are incurring a professional limitation and violating the principle of beneficence.

The effective integration of TNM through developmental task systems fulfills the social mandate to train competent, critical professionals committed to reality. It also constitutes a contribution to the epistemology of Medical Education Sciences and to the guiding principle of Work-Based Learning [14].

The author maintains that this ethical dimension is central to her argument. From her perspective, training physicians who are unfamiliar with TNM or who apply it without due rigor is not only a pedagogical problem, but also a matter of social justice and respect for therapeutic diversity. In a country like Cuba, where TNM is part of public health policies and where its use has expanded in primary care, it would be ethically unacceptable for graduates to arrive at their workplaces without the necessary skills to integrate these modalities into their daily practice.

The integration of Natural and Traditional Medicine into the training of general practitioners requires moving beyond the descriptive and transmissive approach that has characterized its curricular implementation. The workshop format, based on systems of developmental teaching tasks, constitutes an effective methodological path to achieve this integration.

The available scientific evidence supports the inclusion of modalities such as acupuncture, ozone therapy, and phytotherapy in the treatment of common musculoskeletal pathologies, which necessitates updating curricula to guarantee the relevance and quality of training.

Designing tasks that develop cognitive independence, grounded in the sociocultural theory of learning, allows for the training of physicians capable of rationally integrating Natural and Traditional Medicine into their clinical practice, not as a decontextualized alternative, but as a component of a comprehensive care model.

Medical education professionals must assume leadership in transforming teaching and learning processes, recognizing that the

fragmentation between conventional and traditional knowledge constitutes a barrier to the training of the general practitioner that the country needs.

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CONFLICT OF INTEREST

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USE OF ARTIFICIAL INTELLIGENCE

The authors declare that no artificial intelligence was used in the preparation of this manuscript.