

**REGULATORY REVIEW**

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**Public Health Strategies, WHO Policies and the Necessity of Establishing a National Scientific Expert Commission for Complementary and Alternative Medicine in the Republic of North Macedonia**

**Blagica Zhu Arsovska<sup>1, 2</sup> Jihe Zhu<sup>1,2</sup> Gjurgjica Najdovski<sup>1</sup>**

1. Center of Traditional Chinese Medicine "Tong Da Tang", Republic of N. Macedonia;
2. University "Skopje", Skopje, Republic of N. Macedonia

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**Abstract**

Complementary and Alternative Medicine (CAM), including Traditional Chinese Medicine (TCM) and acupuncture, has become an increasingly important component of modern healthcare systems worldwide. The Republic of North Macedonia has already established a legal basis for the regulation of CAM through the Law on Complementary and Alternative Medicine and has participated in several international collaborations and institutional initiatives related to Traditional Chinese Medicine and acupuncture. This paper analyzes the importance of aligning the Republic of North Macedonia with contemporary WHO public health strategies and international standards regarding CAM and TCM. Additionally, the paper discusses the importance of institutional cooperation between governmental bodies, professional associations, and expert commissions in the process of regulating CAM practices. The increasing public awareness regarding health preservation, preventive healthcare, and integrative medicine demonstrates that effective regulation and scientific oversight of CAM are no longer optional but represent an essential public health necessity. Establishing structured expert evaluation mechanisms would contribute to improved patient safety, professional accountability, healthcare quality, and harmonization with international healthcare standards and WHO recommendations.

**Keywords**

Complementary Medicine, Alternative Medicine, Traditional Chinese Medicine, Acupuncture, Integrative Medicine

**Introduction**

In recent decades, Complementary and Alternative Medicine (CAM) has experienced significant global expansion and increasing integration into modern healthcare systems. Integrative and complementary approaches such as Traditional Chinese Medicine (TCM), acupuncture, herbal remedies, chiropractic treatment, yoga, meditation, and similar practices are being used more frequently not only to manage illnesses but also to support disease prevention, promote rehabilitation, maintain health, and enhance overall

quality of life. Modern healthcare systems are progressively recognizing the importance of preventive medicine, holistic patient-centered care, and integrative therapeutic approaches as part of sustainable public health policies.

The growing use of CAM therapies is closely associated with increasing public awareness regarding healthy lifestyles, chronic disease prevention, mental health support, pain management, and the limitations of exclusively conventional therapeutic approaches in certain medical conditions. As public demand for integrative healthcare continues to rise, national healthcare systems face the necessity of developing effective regulatory, scientific, and professional mechanisms capable of ensuring patient safety, quality assurance, professional accountability, and evidence-based implementation of CAM practices.

The World Health Organization has repeatedly emphasized the importance of traditional, complementary, and integrative medicine within global healthcare development strategies. Through the WHO Traditional Medicine Strategy, WHO Benchmarks for Training and Practice in Acupuncture, and the establishment of the WHO Global Centre for Traditional Medicine in 2022, WHO encourages member states to strengthen regulatory frameworks, scientific evaluation, practitioner education, patient protection, and responsible integration of CAM into national healthcare systems. These international strategies highlight the necessity of balancing innovation, traditional medical knowledge, scientific validation, public health priorities, and patient safety. [1–6]

The Republic of North Macedonia has already established a legislative framework for CAM through the Law on Complementary and Alternative Medicine, creating legal conditions for professional regulation and institutional oversight. [7]

Furthermore, the country has participated in several bilateral and international initiatives related to Traditional Chinese Medicine and acupuncture, including healthcare cooperation agreements and educational collaborations with institutions from the People's Republic of China. [8–15]

Previous scientific and professional discussions have also emphasized the necessity of implementing structured regulatory mechanisms for CAM within the national healthcare system.

Despite the existence of legal provisions and international cooperation, the practical implementation of comprehensive regulatory and scientific oversight mechanisms in the Republic of North Macedonia remains incomplete. The Chamber for CAM Practitioners, foreseen by the existing legislation, has still not been fully established, while the increasing public utilization of CAM therapies continues to expand across multiple healthcare sectors. This situation creates an urgent need for structured institutional mechanisms capable of conducting scientific evaluations, professional assessments, licensing support, expert consultations, and healthcare policy recommendations related to CAM practices.

Particular importance should be given to the establishment of a National Scientific Expert Commission for Complementary and Alternative Medicine as a multidisciplinary professional and scientific body that would support governmental institutions in the evaluation and regulation of CAM-related issues. Such a commission could contribute significantly to the implementation of WHO recommendations, the development of evidence-based healthcare policies, the protection of patient safety, and the advancement of professional standards in CAM and TCM practices.

Additionally, the utilization of existing national expert capacities, including healthcare professionals, university professors, researchers, licensed practitioners, and court

experts specialized in CAM and TCM, would facilitate more effective institutional evaluation processes and improve the scientific credibility of regulatory decisions. Institutional cooperation between governmental authorities, professional associations, and scientific expert bodies represents an important prerequisite for the responsible integration of CAM into contemporary public healthcare systems.

The aim of this paper is to analyze the relationship between WHO public health strategies, the increasing use of CAM in the Republic of North Macedonia, and the necessity of establishing a National Scientific Expert Commission for Complementary and Alternative Medicine as a mechanism for scientific evaluation, professional supervision, and public health protection within the national healthcare system.

### **WHO Public Health Strategies and Global Policies on Traditional, Complementary and Integrative Medicine**

The increasing global utilization of Complementary and Alternative Medicine (CAM) and Traditional Chinese Medicine (TCM) has led international healthcare institutions to recognize the importance of developing comprehensive regulatory, scientific, and public health strategies for their safe and effective implementation. [1,2]

Among the leading international organizations promoting structured integration and regulation of traditional and complementary medicine is the World Health Organization, which has developed multiple strategic frameworks, guidelines, and benchmark documents aimed at improving patient safety, professional education, scientific evaluation, and healthcare quality.

The WHO Traditional Medicine Strategy represents one of the most significant international policy frameworks supporting the responsible integration of traditional and complementary medicine into national healthcare systems. The strategy emphasizes the importance of evidence-based practice, professional regulation, practitioner education, patient safety, research development, and institutional supervision. [1]

Furthermore, WHO encourages member states to strengthen legal frameworks and develop national policies capable of ensuring quality assurance and safe implementation of traditional medicine practices within modern healthcare environments.

In recent years, WHO has additionally intensified its activities in the field of integrative medicine through the establishment of the WHO Global Centre for Traditional Medicine in 2022. This initiative demonstrates the growing international recognition of traditional and complementary medicine as an important component of global healthcare systems, particularly in the context of preventive medicine, chronic disease management, rehabilitation, healthy aging, and public health sustainability. The establishment of this center also reflects the increasing need for scientific research, international cooperation, innovation, and evidence-based policymaking in the field of CAM and TCM.

Particular importance has also been given to acupuncture through the publication of WHO Benchmarks for Training in Acupuncture and WHO Benchmarks for the Practice of Acupuncture. [3] [5]

These documents emphasize standardized education, professional competence, clinical safety, ethical practice, and the protection of patient rights. The WHO Guidelines on Basic Training and Safety in Acupuncture further underline the necessity of professional regulation and institutional oversight in order to minimize risks associated with inadequate training or unqualified practice. [4]

Modern WHO public health policies increasingly promote preventive medicine and integrative healthcare approaches aimed at reducing the burden of chronic diseases and improving quality of life. Contemporary healthcare systems are facing significant challenges associated with aging populations, chronic pain conditions, mental health disorders, lifestyle-related diseases, and rising healthcare expenditures. Within this context, CAM and TCM therapies are increasingly considered supportive approaches that may contribute to prevention, rehabilitation, symptom management, and patient-centered healthcare.

The concept of Universal Health Coverage (UHC), strongly promoted by WHO, also supports the responsible integration of evidence-based traditional and complementary medicine into national healthcare systems where appropriate. [6]

**Table 1**

**WHO Strategies and Documents Relevant to CAM Regulation**

| WHO Document   | Year      | Main Focus  |
|--|-----------|---|
| WHO Traditional Medicine Strategy                          | 2014-2023 | <b>Regulation</b> and integration of traditional medicine           |
| WHO Global Centre for Traditional Medicine                 | 2022      | Research, innovation and global cooperation                         |
| WHO Benchmarks for Acupuncture                             | 2021      | <b>Education</b> Standardized education and practitioner competency |
| WHO Practice Benchmarks                                    | 2024      | <b>Clinical Safety</b> and professional practice                    |
| WHO Guidelines on Basic Training and Safety in Acupuncture | 1999      | Patient safety and minimum educational standards                    |
| Universal Health Coverage (UHC)                            | Ongoing   | Integrative and accessible healthcare systems                       |

WHO recognizes that many populations worldwide already utilize CAM therapies as part of their healthcare practices, making scientific regulation and institutional supervision essential components of modern public health governance.

The Republic of North Macedonia, as a country with an established legal framework for Complementary and Alternative Medicine, has the opportunity to further harmonize its national healthcare policies with these contemporary WHO strategies and international recommendations. The development of stronger scientific, regulatory, and institutional mechanisms in the field of CAM would contribute to improved patient safety, healthcare quality, professional accountability, and international cooperation.

### Public Health Importance of CAM and TCM in Modern Healthcare Systems

The role of Complementary and Alternative Medicine (CAM) and Traditional Chinese Medicine (TCM) within modern healthcare systems has become increasingly significant due to the growing public demand for preventive healthcare, holistic medicine, and integrative therapeutic approaches. In many countries worldwide, patients increasingly seek healthcare models that combine conventional medicine with complementary therapies aimed at improving physical, psychological, and social well-being.

Modern public health systems are progressively shifting from exclusively disease-oriented models toward preventive and patient-centered healthcare strategies. Within this transition, CAM and TCM therapies are often utilized as supportive approaches for

maintaining health, reducing stress, improving quality of life, managing chronic symptoms, and supporting rehabilitation processes. Acupuncture, herbal medicine, therapeutic exercises, meditation, and other integrative approaches are increasingly incorporated into healthcare environments as complementary therapeutic options.

One of the major public health factors contributing to the increased use of CAM is the global rise in chronic non-communicable diseases, including cardiovascular diseases, musculoskeletal disorders, chronic pain syndromes, anxiety disorders, depression, metabolic diseases, and cancer-related complications. Many patients experiencing long-term chronic conditions seek complementary therapies to improve symptom management, reduce discomfort, and enhance overall quality of life alongside conventional medical treatment.

Beyond their use in treatment, CAM therapies are also increasingly adopted as a means of preventive healthcare. Modern populations demonstrate growing awareness regarding healthy lifestyles, stress reduction, immune support, mental well-being, nutrition, physical activity, and early prevention strategies. This broader public health awareness contributes to increased interest in integrative medicine approaches that focus not only on treatment but also on health preservation and prevention.

Traditional Chinese Medicine and acupuncture have gained particular international attention due to their historical continuity, global expansion, and growing scientific evaluation. [18,19]

Acupuncture, especially, has been recognized in multiple clinical and scientific contexts for its potential supportive role in pain management, rehabilitation, neurological conditions, stress-related disorders, and supportive oncology care.[20]

The increasing number of scientific publications, clinical studies, educational programs, and international guidelines related to acupuncture demonstrates the expanding institutional and academic interest in this field.

However, the increasing public utilization of CAM therapies also creates important responsibilities for national healthcare systems. Without proper regulation, professional standards, scientific evaluation, and institutional supervision, there is a risk of unsafe practices, misinformation, inadequate practitioner qualifications, and reduced patient protection. Consequently, modern healthcare systems increasingly recognize that the growth of CAM utilization must be accompanied by effective legal, educational, and scientific regulatory mechanisms.

The Republic of North Macedonia is similarly experiencing growing public interest in Complementary and Alternative Medicine. As awareness regarding preventive healthcare and integrative medicine increases, the necessity for institutional oversight, professional evaluation, licensing supervision, and patient safety protection becomes increasingly important. The responsible regulation of CAM therefore represents not only a professional issue but also a significant public health priority.

### **Increasing Use of CAM in the Republic of North Macedonia**

The utilization of Complementary and Alternative Medicine (CAM) in the Republic of North Macedonia has increased considerably during the past decades, reflecting broader global healthcare trends associated with preventive medicine, integrative healthcare, and patient-centered therapeutic approaches. Therapies such as Traditional Chinese Medicine (TCM), acupuncture, herbal medicine, chiropractic care, homeopathy, yoga, cupping therapy, and other complementary practices are increasingly recognized and

utilized by patients seeking additional therapeutic options for maintaining health and managing various medical conditions.

Several factors contribute to the growing interest in CAM within the Republic of North Macedonia. One of the primary factors is the increasing public awareness regarding health preservation, disease prevention, healthy lifestyles, and the importance of holistic approaches to healthcare. Modern patients are increasingly interested not only in disease treatment but also in maintaining long-term physical and mental well-being, improving quality of life, reducing stress, and supporting overall health through preventive measures.

Another important factor is the increasing prevalence of chronic diseases and long-term health conditions. Patients suffering from chronic pain syndromes, musculoskeletal disorders, neurological conditions, stress-related disorders, and rehabilitation-related complications often seek complementary therapies alongside conventional medical treatment. Acupuncture and other integrative therapeutic approaches are increasingly utilized as supportive interventions aimed at improving symptom management and patient comfort.

The Republic of North Macedonia has already established a legal framework for CAM through the adoption of the Law on Complementary and Alternative Medicine. [7]

This legislation represents an important institutional step toward regulating the professional practice of CAM therapies and ensuring patient protection. Previous analyses have emphasized that the law provides a basis for professional regulation, licensing procedures, educational standards, and institutional oversight mechanisms. [8]

In addition to legislative developments, the country has participated in several international collaborations related to Traditional Chinese Medicine and acupuncture. Bilateral healthcare cooperation agreements, educational initiatives, scientific symposiums, and professional exchanges with institutions from the People's Republic of China have contributed to the development and promotion of TCM in the Republic of North Macedonia. [9–15]

Despite these positive developments, the increasing utilization of CAM therapies also highlights the necessity of strengthening institutional regulation and scientific oversight. As the number of CAM users and practitioners continues to increase, healthcare authorities face growing responsibilities related to practitioner evaluation, licensing supervision, patient safety, scientific validation, and healthcare quality assurance. The absence of fully developed institutional mechanisms, including the delayed establishment of the Chamber for CAM Practitioners, creates additional challenges in ensuring consistent professional standards and regulatory supervision. For this reason, the increasing use of CAM in the Republic of North Macedonia highlights the importance of establishing stronger scientific, professional, and institutional frameworks to assess CAM practices, practitioner qualifications, training programs, and licensing processes in line with national regulations and international healthcare standards.

### **Institutional and Legal Framework in the Republic of North Macedonia**

The Republic of North Macedonia has established a formal legislative basis for the regulation of Complementary and Alternative Medicine (CAM) through the adoption of the Law on Complementary and Alternative Medicine. This legal framework represents a significant institutional step toward the regulation, supervision, and professional organization of CAM practices within the national healthcare system. The law provides legal conditions for practitioner licensing, professional standards, institutional oversight, and the protection of patient safety in the field of CAM.

The legal recognition of CAM demonstrates the acknowledgment by state institutions that complementary medicine represents an important component of contemporary healthcare systems and requires appropriate regulation and professional supervision. The law also reflects the broader international tendency toward institutional integration of evidence-based complementary and integrative medicine into public healthcare policies.

Previous professional and scientific analyses have emphasized that, despite the existence of the legal framework, several important implementation mechanisms remain insufficiently developed. [8]

In particular, the Chamber for CAM Practitioners, foreseen by the law as a professional regulatory body responsible for overseeing standards, ethics, licensing support, and professional accountability, has not yet been fully established.

The delayed implementation of institutional mechanisms creates challenges regarding consistent professional supervision, evaluation of practitioner qualifications, educational verification, and long-term regulatory coordination within the CAM sector. At the same time, the growing public use of CAM therapies increases the importance of ensuring that all professional activities are conducted according to scientific, ethical, and safety standards.

In addition to domestic legislation, the Republic of North Macedonia has participated in several international agreements and collaborations related to Traditional Chinese Medicine and healthcare cooperation. Bilateral agreements between the Republic of North Macedonia and the People's Republic of China have contributed to the development of educational, scientific, and institutional cooperation in the field of Traditional Chinese Medicine and acupuncture. [9–15]

The Ministry of Health and other national institutions have also participated in international educational seminars, scientific exchanges, and healthcare initiatives connected to Traditional Chinese Medicine. These activities demonstrate institutional openness toward international cooperation and the gradual development of integrative healthcare approaches aligned with contemporary global healthcare trends.

Furthermore, the legal and institutional framework of the Republic of North Macedonia allows for the involvement of professional associations, academic institutions, healthcare professionals, and expert bodies in processes related to professional education, scientific development, and expert evaluation in the field of CAM. Such multidisciplinary cooperation represents an important foundation for the future development of responsible and evidence-based CAM regulation.

The strengthening of institutional mechanisms in the field of CAM should therefore not be viewed solely as a legal obligation, but also as an important component of public health protection, healthcare quality assurance, patient safety, and international healthcare harmonization. Effective regulation requires continuous cooperation between governmental institutions, scientific experts in the area of CAM and TCM, professional organizations, healthcare practitioners, and academic bodies.

### **Governmental Support and Institutional Communication**

Institutional communication and governmental support represent important elements in the development of responsible healthcare policies related to Complementary and Alternative Medicine (CAM) and Traditional Chinese Medicine (TCM). Effective cooperation between governmental institutions, professional organizations, scientific experts, and healthcare practitioners contributes to the creation of more transparent, evidence-based, and patient-oriented healthcare systems.

In the Republic of North Macedonia, recent institutional communication has demonstrated increasing recognition regarding the importance of professional regulation, scientific evaluation, patient safety, and international healthcare standards in the field of CAM and TCM. Governmental institutions have acknowledged the significance of developing professional and scientific approaches related to traditional, complementary, and integrative medicine, particularly in relation to healthcare quality, patient protection, and harmonization with international recommendations.

Particular importance has been given to institutional communication emphasizing the need for professional, scientific, and regulatory mechanisms aligned with the recommendations and standards of the World Health Organization. [1–6]

Official institutional correspondence has recognized the importance of expert approaches related to Traditional Chinese Medicine, patient safety, healthcare quality, and the development of modern regulatory mechanisms consistent with international healthcare standards.

Additionally, institutional communication has acknowledged the importance of utilizing national academic and professional capacities in processes related to scientific evaluation, professional consultation, and healthcare policy development concerning CAM and TCM. The involvement of multidisciplinary expert bodies composed of healthcare professionals, university professors, researchers, scientific experts, and court experts in the area of CAM and TCM may significantly contribute to the development of more effective institutional decision-making processes.

The importance of governmental cooperation with scientific and professional institutions becomes increasingly relevant considering the growing public utilization of CAM therapies. As more patients seek integrative therapeutic approaches for prevention, rehabilitation, symptom management, and quality-of-life improvement, healthcare authorities face increasing responsibilities regarding professional supervision, practitioner evaluation, licensing procedures, and public health protection.

Institutional support for evidence-based regulation and scientific evaluation also contributes to reducing the risks associated with unqualified practice, misinformation, unsafe procedures, and inadequate professional standards. **Transparent cooperation between governmental authorities and qualified expert bodies may therefore improve public trust in healthcare institutions and strengthen healthcare system credibility.**

Furthermore, the inclusion of scientific experts and professional organizations in regulatory discussions is consistent with modern international healthcare governance models, where multidisciplinary collaboration and expert consultation play essential roles in policy development and healthcare regulation. Such cooperation may facilitate the implementation of international healthcare recommendations, improve regulatory transparency, and support the long-term development of integrative healthcare policies.

The continuation of constructive institutional communication between governmental authorities and professional CAM organizations may therefore represent an important step toward strengthening healthcare quality, improving patient protection, and developing scientifically supported regulatory mechanisms in the Republic of North Macedonia.

## The Need for a National Scientific Expert Commission for CAM

The increasing utilization of Complementary and Alternative Medicine (CAM) and Traditional Chinese Medicine (TCM) within the Republic of North Macedonia creates an urgent need for stronger institutional, scientific, and professional mechanisms capable of ensuring effective regulation, patient safety, and evidence-based healthcare governance. In this context, the establishment of a National Scientific Expert Commission for Complementary and Alternative Medicine represents a necessary and strategically important institutional step.

Modern healthcare systems increasingly rely on multidisciplinary scientific and expert bodies in processes related to healthcare regulation, professional evaluation, public health analysis, and policy development. [1,6,18]

The complexity of CAM therapies, combined with their growing public utilization, requires professional evaluation mechanisms that integrate scientific expertise, healthcare knowledge, legal understanding, educational standards, and patient safety considerations.

A National Scientific Expert Commission for CAM could function as a multidisciplinary advisory and evaluative body composed of healthcare professionals, university professors, researchers, licensed practitioners, scientific experts, and court experts specialized in complementary and integrative medicine. Such a commission could provide scientific analyses, professional opinions, healthcare recommendations, and expert evaluations regarding various institutional processes connected to CAM.

The commission could contribute significantly to the evaluation of practitioner qualifications, professional competencies, educational programs, scientific standards, licensing procedures, and ethical considerations related to CAM practice.

**Table 2.**

**Proposed Functions of a National Scientific Expert Commission for CAM**

| Area of Activity          | Function  |
|---------------------------|---|
| Licensing Evaluation      | Assessment of <b>practitioner qualifications</b>                                    |
| Educational Standards     | <b>Evaluation of CAM educational programs</b>                                       |
| Patient Safety            | <b>Monitoring</b> professional safety standards                                     |
| Scientific Evaluation     | Review of evidence-based CAM practices  |
| Healthcare Policy         | Advisory recommendations to governmental institutions                               |
| Professional Ethics       | Evaluation of ethical compliance  |
| Public Health             | <b>Recommendations</b> Support for preventive and integrative healthcare strategies |
| International Cooperation | Harmonization with WHO recommendations and standards                                |

Furthermore, it could support governmental institutions in the development of evidence-based healthcare policies aligned with WHO recommendations and international healthcare standards. [1–6]

An important role of the commission would also involve strengthening patient safety and healthcare quality assurance. Through scientific evaluation and expert supervision, the

commission could help reduce risks for patient safety associated with unqualified practice, inadequate education, misinformation, and unsafe therapeutic procedures. This would contribute to improving public trust in regulated CAM practices and strengthening professional accountability within the healthcare system.

Particular importance should be given to the current institutional situation in which the Chamber for CAM Practitioners has not yet been fully established despite being foreseen by existing legislation. Under such circumstances, the temporary inclusion of qualified national scientific and professional experts in evaluative and advisory processes represents a rational and necessary institutional mechanism capable of supporting regulatory implementation and professional supervision.

The establishment of a National Scientific Expert Commission would also facilitate more effective cooperation between governmental institutions, universities, professional associations, healthcare organizations, and scientific bodies. Such multidisciplinary collaboration is consistent with modern international healthcare governance models and may significantly improve the quality, transparency, and scientific credibility of institutional decision-making processes.

Additionally, the Republic of North Macedonia currently possesses important national academic and professional capacities in the field of Traditional Chinese Medicine and CAM, including experienced healthcare professionals, scientific researchers, university experts, licensed practitioners in the area of CAM and TCM, and court experts with specialized knowledge in TCM and in integrative medicine. The utilization of these existing expert resources within institutional processes would represent an efficient and strategically valuable approach toward strengthening healthcare governance and regulatory oversight.

The establishment of a National Scientific Expert Commission for CAM should therefore be viewed not only as a regulatory necessity but also as an important public health strategy aimed at improving healthcare quality, scientific evaluation, professional accountability, patient safety, and harmonization with contemporary international healthcare standards.

### **The Role of Professional Experts and Court Experts in CAM Evaluation**

The regulation and scientific evaluation of Complementary and Alternative Medicine (CAM) and Traditional Chinese Medicine (TCM) require the involvement of qualified professional experts with multidisciplinary competencies in clinical medicine, public health, pharmacology, rehabilitation, and integrative healthcare. In modern healthcare systems, expert evaluation is not limited to administrative decision-making but **represents a fundamental scientific process that ensures safety, quality, and evidence-based practice.**

In the context of the Republic of North Macedonia, the involvement of professional experts who possess expertise in CAM or TCM in addition to conventional medical training, together with university professors, licensed healthcare practitioners, and court-certified forensic experts in CAM and TCM, is essential for ensuring objective, scientifically grounded, and professionally credible evaluation of CAM-related practices, educational programs, and practitioner competencies. These experts play a key role in assessing clinical safety, methodological validity, therapeutic effectiveness, and ethical compliance of CAM interventions.

Court experts, in particular, provide an additional layer of legal and scientific accountability, especially in cases involving medical disputes, patient safety concerns, professional liability, and regulatory compliance. Their role ensures that CAM evaluation

processes are not only medically sound but also legally defensible and aligned with national healthcare legislation.

Furthermore, professional expert involvement contributes to harmonization with international standards promoted by the World Health Organization, particularly in relation to training benchmarks, safety guidelines, and integrative medicine policies.[1–5]

The inclusion of multidisciplinary expertise strengthens the scientific credibility of regulatory decisions and ensures that CAM practices are evaluated through a comprehensive, evidence-based approach.

### **Patient Safety, Licensing and Healthcare Quality**

Patient safety represents the central principle in all healthcare systems, including the regulation of Complementary and Alternative Medicine (CAM). As the use of CAM and Traditional Chinese Medicine (TCM) continues to expand globally and nationally, ensuring safety, quality, and professional accountability becomes an essential public health responsibility.

One of the most important components of safe CAM practice is the establishment of clear licensing procedures based on standardized educational requirements, clinical training, and professional competency assessment. Licensing mechanisms must ensure that only adequately trained and qualified practitioners are authorized to provide CAM therapies, particularly in sensitive clinical areas such as pain management, oncology support, neurological conditions, and chronic disease care.

Healthcare quality in CAM depends on multiple factors, including practitioner education, adherence to clinical protocols, ethical standards, supervision mechanisms, and continuous professional development. Without structured regulatory oversight, there is an increased risk of inconsistent practices, insufficient training, and potential harm to patients.

The development of structured regulatory systems in the Republic of North Macedonia is therefore essential for ensuring alignment with international healthcare standards and recommendations issued by the World Health Organization. [1–6]

These standards emphasize the importance of safety, quality assurance, evidence-based practice, and continuous monitoring in all healthcare sectors, including traditional and complementary medicine.

In addition, the establishment of a National Scientific Expert Commission for CAM would significantly strengthen licensing processes by providing scientific evaluation of practitioner qualifications, training programs, and professional competencies. Such a mechanism would contribute to higher levels of transparency, consistency, and reliability in regulatory decision-making.

Ultimately, patient safety must remain the highest priority in the development and implementation of CAM policies. Ensuring safe clinical practice, minimizing risks, and maintaining high-quality healthcare services are fundamental responsibilities of national health authorities.

### **Discussion**

The increasing global and national utilization of Complementary and Alternative Medicine (CAM) reflects a broader transformation in healthcare systems toward preventive, integrative, and patient-centered models of care. This shift is strongly supported by

international health policy frameworks, particularly those developed by the World Health Organization, which emphasize the importance of integrating traditional and complementary medicine into national healthcare systems under conditions of safety, quality, and scientific validation. [1–6]

In the Republic of North Macedonia, the existence of a legal framework for CAM represents an important foundation for regulatory development. However, the absence of fully functional institutional mechanisms, particularly the delayed establishment of the Chamber for CAM Practitioners, highlights the need for interim and complementary scientific structures capable of supporting regulatory processes.

The establishment of a National Scientific Expert Commission for CAM represents a rational and evidence-based response to existing systemic gaps. Such a commission would provide scientific support for policy development, professional evaluation, licensing procedures, and healthcare quality assurance. It would also ensure that CAM practices are assessed according to standardized scientific criteria and international guidelines.

Furthermore, the integration of professional experts, academic institutions, and court experts into CAM governance processes would enhance transparency, objectivity, and scientific credibility. This interdisciplinary approach aligns with contemporary healthcare governance frameworks and mirrors internationally recognized best practices in regulatory science.

The growing public demand for CAM therapies in the Republic of North Macedonia further reinforces the necessity of structured regulatory oversight. As patients increasingly seek integrative healthcare solutions for chronic conditions, prevention, and quality-of-life improvement, the healthcare system must respond with appropriate institutional capacity, scientific evaluation mechanisms, and regulatory safeguards.

### **Strategic Perspectives for Future Healthcare Policy Development**

The future development of Complementary and Alternative Medicine (CAM) regulation in the Republic of North Macedonia should be approached through scientifically grounded, institutionally coordinated, and internationally harmonized healthcare policies. Considering the increasing public utilization of CAM therapies, the growing emphasis on preventive healthcare, and the recommendations promoted by the World Health Organization (WHO), the establishment of effective expert evaluation mechanisms represents an important strategic public health objective.

Contemporary healthcare governance increasingly relies on multidisciplinary scientific and advisory bodies capable of supporting evidence-based decision-making processes, professional evaluation, healthcare quality assurance, and patient safety protection. In this context, creating a National Scientific Expert Commission for Complementary and Alternative Medicine could offer significant institutional backing for assessing professional standards, licensing systems, training programs, scientific guidance, and the application of regulatory measures.

Such an approach would contribute not only to improved healthcare governance but also to the harmonization of national healthcare policies with modern international standards related to traditional, complementary, and integrative medicine. Furthermore, the inclusion of qualified national academic and professional experts in evaluative processes would strengthen scientific transparency, institutional credibility, and public confidence in healthcare regulation.

The Republic of North Macedonia already possesses important legal, professional, and academic foundations in the field of CAM and Traditional Chinese Medicine. Previous international collaborations, existing healthcare legislation, professional organizations, educational activities, and institutional communication demonstrate the existence of a substantial national capacity for the responsible development of this healthcare sector.

In addition, constructive institutional communication and governmental openness toward professional dialogue represent positive indicators for the future advancement of scientifically supported CAM regulation. Strengthening cooperation between governmental institutions, universities, healthcare professionals, scientific experts, and professional associations may significantly contribute to the development of sustainable healthcare policies aligned with public health priorities and WHO strategic recommendations.

Ultimately, the responsible regulation and scientific supervision of CAM should be viewed as part of broader national efforts toward healthcare modernization, preventive medicine development, patient-centered care, and long-term public health sustainability. The integration of scientific expertise, institutional cooperation, and international healthcare standards may contribute substantially to the safe, ethical, and evidence-based advancement of Complementary and Alternative Medicine in the Republic of North Macedonia.

### **Limitations**

This paper represents a policy-oriented analytical and narrative review focused on public health, regulatory frameworks, and institutional perspectives related to Complementary and Alternative Medicine (CAM) in the Republic of North Macedonia. The study does not include primary clinical, epidemiological, or statistical research data. Additionally, certain aspects of CAM utilization within the national healthcare system remain insufficiently documented due to limited publicly available institutional data and the ongoing development of regulatory mechanisms. Future research may further evaluate the practical implementation, healthcare outcomes, patient perspectives, and institutional effectiveness of CAM regulatory systems through empirical scientific studies and multidisciplinary public health analyses.

### **Conclusion**

The analysis presented in this paper demonstrates that Complementary and Alternative Medicine (CAM) has become an important component of modern healthcare systems and public health strategies worldwide. The increasing utilization of CAM and Traditional Chinese Medicine (TCM) in the Republic of North Macedonia highlights the urgent need for strengthened institutional, scientific, and regulatory frameworks.

In alignment with international recommendations and strategies of the World Health Organization, it is evident that effective CAM governance requires structured evaluation mechanisms, standardized licensing procedures, and continuous professional oversight. [1–6] Although the Republic of North Macedonia has established a legal framework for CAM, the full implementation of regulatory institutions remains incomplete.

The establishment of a National Scientific Expert Commission for Complementary and Alternative Medicine represents a necessary and strategic step toward ensuring patient safety, improving healthcare quality, and supporting evidence-based regulatory decision-making. Such a commission would provide scientific evaluation, professional expertise, and multidisciplinary support to national healthcare authorities.

In conclusion, the development of a structured, scientifically grounded, and institutionally integrated CAM regulatory system is not only a legal requirement but also a public health necessity. Strengthening expert involvement and aligning national policies with international standards will contribute significantly to the safe, effective, and sustainable integration of CAM into the healthcare system of the Republic of North Macedonia.

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