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Public Administration in the System of Postgraduate Medical Education: Strategic Guidelines

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ABSTRACT

Postgraduate medical education is a key component of ensuring the quality, safety, and sustainability of healthcare systems, particularly in the context of rapid scientific progress, digital transformation, and increasing demands for medical services. Within the framework of ongoing healthcare reform and European integration, Ukraine faces the urgent need to modernize not only the content of postgraduate medical education but also the public administration mechanisms that regulate this field. This article analyzes the current state of postgraduate medical education in Ukraine and identifies major structural and managerial challenges, including fragmented governance, insufficient coordination between institutions, low levels of digitalization, unequal access to educational resources across regions, and weak links between continuing professional development, licensing, and professional advancement. These problems reduce the effectiveness of lifelong learning for physicians and limit the capacity of the healthcare system to adapt to new clinical standards and technologies. The study provides a comparative analysis of international continuing professional development models implemented in the European Union, the United States, and Canada, as well as the policy framework proposed by the World Health Organization. These models are examined in terms of regulatory arrangements, accreditation mechanisms, digital tools, and motivational instruments that support continuous professional development. Based on this analysis, the article formulates strategic guidelines for improving public administration in the field of postgraduate medical education in Ukraine. These include the development of a unified national continuing professional development strategy, the creation of an integrated digital continuing professional development system, clarification of institutional responsibilities, expansion of the managerial autonomy of educational institutions, strengthening motivational mechanisms for physicians, and ensuring equitable access to educational opportunities. The implementation of these measures can contribute to the creation of a coherent, transparent, and adaptive system of postgraduate medical education that supports lifelong learning, enhances professional competence, and strengthens the overall performance of Ukraine's healthcare system.

KEYWORDS

public administration, postgraduate medical education, continuing professional development, healthcare reform, strategic management, digital transformation.

Introduction

In the context of the ongoing transformation of Ukraine's healthcare system, postgraduate medical education has gained paramount importance as a critical instrument for ensuring the continuous professional development of medical practitioners. The rapid pace of medical knowledge renewal, the widespread adoption of evidence-based medicine, the digitalization of clinical practice, and escalating demands for the quality of medical services collectively underscore the necessity for effective public administration in this domain (Grytsko, 2021a).

Public administration in the sphere of postgraduate medical education encompasses the formulation of state policy, normative-legal regulation, the organization of the educational process, quality assurance, funding, and the monitoring of outcomes. The inherent characteristics of medical education—notably its social significance, interdisciplinary nature, and the constant need for competence updates—demand a strategic management approach. This approach must strike a balance between centralized standards to ensure quality and the necessary autonomy of educational institutions to foster innovation and responsiveness.

Despite the existence of specific regulatory acts (Cabinet of Ministers of Ukraine, 2018; Ministry of Health of Ukraine, 2019), Ukraine's postgraduate medical education system remains fragmented. It is characterized by insufficiently defined managerial authorities and a lack of a unified development strategy. This fragmentation diminishes the effectiveness of specialist training, complicates the implementation of innovations, and hinders integration into the broader European educational space.

Consequently, the study of strategic guidelines for public administration within the postgraduate medical education system is of pressing relevance. Such an inquiry must consider international best practices, contemporary challenges, and the specific needs of the Ukrainian healthcare system.

Literature Review

The issue of Continuing Professional Development (CPD) and postgraduate medical education has been widely addressed in international and national academic and policy-oriented literature. A significant body of research and institutional documents emphasizes the central role of lifelong learning in ensuring the quality, safety, and sustainability of healthcare systems.

At the international level, the World Health Organization conceptualizes CPD as a core component of human resources for health policy and links it with licensing, accreditation, and workforce planning. The WHO Global Strategy on Human Resources for Health: Workforce 2030 and subsequent policy briefs underline the necessity of institutionalizing CPD at the national level, ensuring equitable access, and leveraging digital technologies to expand learning opportunities, particularly in low- and middle-income countries (World Health Organization, 2016; Bassiouny & Elhadidy, 2022).

In the European context, CPD is examined primarily through regulatory and professional frameworks. The European Union of Medical Specialists promotes a decentralized model coordinated through unified standards, emphasizing accreditation, credit-based systems, and quality assurance mechanisms (European Union of Medical Specialists, 2025). The guidance of the General Medical Council in the United Kingdom further highlights the role of CPD in professional accountability and license maintenance (General Medical Council, 2016).

The North American literature focuses on professional self-regulation and institutional responsibility. The Accreditation Council for Continuing Medical Education defines standards for educational integrity, independence, and quality in the United States, emphasizing transparency and outcomes-based education (Accreditation Council for Continuing Medical Education, 2020). In Canada, the Royal College of Physicians and Surgeons conceptualizes CPD within the Maintenance of Certification framework, highlighting reflective practice, self-assessment, and structured documentation through digital platforms (Royal College of Physicians and Surgeons of Canada, 2023).

Ukrainian academic sources address postgraduate medical education mainly in the context of healthcare reform and professional training. Zaremba et al. analyze new approaches to the training of family physicians at undergraduate and postgraduate stages, stressing the need for competence-based and practice-oriented education (Zaremba et al., 2025). Grytsko focuses on gaps in

postgraduate curricula, particularly in preventive medicine and vaccinology, and underlines the importance of updating educational content in response to public health challenges (Grytsko, 2021a, 2021b).

Normative and institutional documents, including resolutions of the Cabinet of Ministers, orders of the Ministry of Health, and standards of the National Agency for Higher Education Quality Assurance, define the legal and organizational framework of postgraduate medical education in Ukraine, while also revealing its fragmentation and regulatory complexity (Cabinet of Ministers of Ukraine, 2018; Ministry of Health of Ukraine, 2019; National Agency for Quality Assurance in Higher Education, 2021).

Overall, the reviewed literature demonstrates a consensus on the importance of CPD for healthcare quality and workforce development, as well as on the necessity of strategic governance, digitalization, and accreditation. At the same time, there is a lack of integrated studies that systematically analyze public administration mechanisms in Ukraine's postgraduate medical education system and propose strategic reforms based on international best practices. This gap defines the relevance and focus of the present study.

Problem Statement

In the context of ongoing healthcare reform, digital transformation, and European integration, the modernization of postgraduate medical education has become one of the key challenges for Ukraine's healthcare system. The rapid development of medical technologies, the growing complexity of clinical practice, and the increasing demands for quality and safety of medical services require continuous updating of physicians' knowledge and competencies. Under these conditions, the system of postgraduate medical education is expected to function not merely as a formal mechanism of qualification renewal, but as a dynamic and flexible instrument for professional development throughout a medical career.

However, the current model of postgraduate medical education in Ukraine remains largely fragmented and insufficiently adapted to these challenges. The governance of this sphere is characterized by a dispersion of responsibilities among multiple institutions, including the Ministry of Health, the Ministry of Education and Science, accreditation bodies, and educational providers, without a unified strategic center. This leads to inconsistencies in policy implementation, duplication of functions, and the absence of a coherent long-term development vision.

In addition, the system demonstrates a low level of digitalization, which limits the possibilities for effective monitoring of learning trajectories, assessment of educational outcomes, and evidence-based workforce planning. The lack of a unified digital registry of Continuing Professional Development activities complicates the management of professional competencies and reduces the transparency and accountability of the educational process.

Another significant problem is the unequal access to high-quality postgraduate education between physicians in large urban centers and those working in peripheral or rural regions. This inequality deepens professional disparities, undermines motivation for continuous learning, and ultimately affects the quality of healthcare services delivered to the population.

Furthermore, insufficient motivational mechanisms and weak links between CPD participation and career advancement, licensing, or remuneration reduce physicians' engagement in lifelong learning and often turn postgraduate education into a formal rather than a substantive process.

Thus, there is an urgent need to rethink and modernize public administration mechanisms in the field of postgraduate medical education in Ukraine. This includes the development of a coherent national strategy, the introduction of effective digital tools, the clarification of institutional responsibilities, and the creation of incentives that would encourage physicians to actively engage in continuous professional development. Addressing these challenges is essential to ensure the sustainability, equity, and quality of the healthcare system in the modern socio-economic and technological environment. This article aims to define strategic directions for modernizing governance mechanisms in the field of postgraduate medical education in Ukraine.

Methods and Materials

This study is based on an interdisciplinary approach that integrates elements of public administration theory, healthcare policy analysis, and educational management. Such an approach makes it possible to comprehensively examine the governance mechanisms of postgraduate medical education and to identify the structural, institutional, and managerial factors influencing its effectiveness.

The research materials include international policy documents and guidelines on Continuing Professional Development, particularly those issued by the World Health Organization, the European Union of Medical Specialists, the Accreditation Council for Continuing Medical Education, and the Royal College of Physicians and Surgeons of Canada, as well as Ukrainian regulatory legal acts governing postgraduate medical education. In addition, academic publications by Ukrainian and foreign researchers addressing healthcare reform, professional training, and digitalization in education were analyzed.

The study employed methods of analysis and synthesis to systematize existing theoretical approaches and empirical findings; a systemic approach to consider postgraduate medical education as a component of the broader healthcare and educational system; and comparative analysis to identify similarities and differences between Ukrainian and international CPD models. Content analysis was used to examine policy documents, regulatory acts, and institutional reports, while logical generalization was applied to formulate strategic recommendations.

The combination of these methods and materials made it possible to identify key problems in the governance of postgraduate medical education in Ukraine, assess their structural causes, and develop scientifically grounded proposals for improving public administration in this field.

Results and Discussion

Ahe State of Postgraduate Medical Education in Ukraine. Historical Context and System Evolution. Postgraduate medical education in Ukraine has a long history, originating from the Soviet model of physician advanced training. For decades, it functioned as a centralized system focused on periodic learning within academic institutions. However, the transition to a market economy, the reform of the healthcare system, and the drive for European integration have created a pressing need to update approaches to the professional development of medical personnel (Zaremba et al., 2015).

The contemporary model is gradually transforming from formal, periodic training towards the concept of Continuing Professional Development. CPD implies flexible, individualized, and practice-oriented learning that occurs throughout a medical professional's entire career.

Normative and Legal Framework. The regulatory landscape for postgraduate medical education in Ukraine is shaped primarily by acts from the Ministry of Health (MOH), the Ministry of Education and Science (MES), and the Cabinet of Ministers. Key documents include: The Laws of Ukraine “On Education” and “On Higher Education,” which establish general principles for educational activity. Resolution of the Cabinet of Ministers No. 302 (as amended), regulating the procedure for physician qualification enhancement (Cabinet of Ministers of Ukraine, 2018). Order of the MOH No. 446, which approves the Regulation on Postgraduate Education for Physicians (Ministry of Health of Ukraine, 2019). Standards of the National Agency for Higher Education Quality Assurance (NAQA) about educational program accreditation (National Agency for Quality Assurance in Higher Education, 2021). Despite this normative base, it remains fragmented and suffers from an unclear distribution of authority among state bodies, educational institutions, and professional associations.

Institutional Structure. The system of postgraduate medical education encompasses: National institutions (e.g., Shupyk National Medical Academy of Postgraduate Education). Medical universities house postgraduate education faculties. Simulation training centers implementing practical skill models. Professional associations organize training sessions, conferences, and certification courses.

However, the absence of a single coordinating body responsible for formulating strategic CPD policy leads to duplication of functions, unequal access to training opportunities, and a lack of systematic quality monitoring.

Key Challenges. Principal problems impeding the development of postgraduate medical education include: Fragmented governance among the MOH, MES, NAQA, and educational institutions. Insufficient digitization of learning processes and CPD record-keeping (Grytsko, 2021b). Absence of a unified development strategy that considers regional needs, medical specialties, and international standards. Limited funding and low motivation among physicians to engage in ongoing education. Unequal access to quality training between central urban areas and peripheral regions.

Strategic Challenges and Managerial Issues. Fragmentation of the Governance System. A primary challenge is the lack of a unified coordination center responsible for strategic policy formation, quality monitoring, and the integration of educational processes. Authority is dispersed among the MOH, MES, NAQA, educational institutions, and professional associations. This results in functional overlap, regulatory uncertainty, and managerial inconsistency, complicating comprehensive reforms, the implementation of unified CPD standards, and the assurance of equal access to quality education for doctors across different regions.

Insufficient Digitization and Data Management. While digital technologies are actively integrated into clinical practice, the postgraduate education system remains predominantly paper-based. There is limited use of electronic platforms for registration, record-keeping, assessment, and learning certification.

The absence of a unified digital CPD registry, integrated with MOH and National Health Service of Ukraine (NHSU) databases, hampers the management of physicians' educational trajectories, the monitoring of their qualifications, and evidence-based human resource decision-making (United States Department of Health and Human Services, 2021).

Unequal Access to Educational Resources. A significant disparity exists between the opportunities available to doctors in large cities and those in peripheral regions. Access to simulation training centers, modern courses, and international certifications is largely concentrated in regional centers. In contrast, physicians in rural areas have limited access to high-quality CPD, creating risks to patient safety, reducing staff motivation, and exacerbating workforce inequality (Bassiouny & Elhadidy, 2022).

Lack of Motivational Mechanisms. The current Ukrainian postgraduate education system lacks clear incentives for physicians to engage in CPD. Advanced training is often perceived as a formality rather than a tool for genuine professional growth (Zaremba et al., 2015). The absence of a tangible link between CPD participation and career advancement, salary increases, or access to modern technologies diminishes the effectiveness of educational programs.

Limited Funding and Managerial Autonomy. Most postgraduate education institutions depend on state funding, which is insufficient for implementing innovations, updating material-technical bases, and attracting highly qualified instructors. Furthermore, the managerial autonomy of these institutions is constrained, hindering strategic planning, partnerships with international organizations, and the ability to adapt to market needs.

International Experience: CPD Models in the EU, USA, Canada, and WHO. General Approaches to CPD in Developed Countries. Continuing Professional Development (CPD) is a fundamental component of healthcare policy in most developed nations. Its goal is to ensure the continuous updating of healthcare workers' knowledge, skills, and competencies in line with contemporary clinical practice standards. Successful CPD models are founded on the principles of mandatory participation, accreditation of educational programs, independent quality monitoring, and a formal link between CPD and professional licensure (World Health Organization, 2016; Bassiouny & Elhadidy, 2022).

European Union: Decentralized Model with Unified Standards. In EU countries, CPD is regulated by national health authorities, yet operates within a common framework recommended by the European Commission and professional bodies like the European Union of Medical Specialists (UEMS) [3]. Key features include: Mandatory CPD for license renewal in most member states (General Medical

Council, 2016). A credit-based system (CME/CPD points) that physicians must accumulate over a set period. Accreditation of CPD providers through independent agencies. Digital platforms for recording and verifying learning activities (e.g., e-Portfolio in the UK).

United States: Market-Oriented Model with High Self-Regulation. In the USA, CPD is coordinated through the Accreditation Council for Continuing Medical Education (ACCME), which sets standards for education providers (Accreditation Council for Continuing Medical Education, 2020). Distinctive traits of this model are: Voluntary participation in principle, but de facto mandatory for maintaining board certification. High competition among providers, stimulating innovation. Integration of CPD with clinical information systems (e.g., Maintenance of Certification - MOC programs). Financial support from employers, insurance companies, and pharmaceutical firms (with strict conflict-of-interest regulations) (Accreditation Council for Continuing Medical Education, 2020).

Canada: Professional Responsibility Model. The Canadian CPD system is coordinated by the Royal College of Physicians and Surgeons of Canada (RCPSC) and is based on the Maintenance of Certification (MOC) concept (Royal College of Physicians and Surgeons of Canada, 2023). Its main characteristics are: Mandatory CPD for all physicians who are members of the College. Three categories of activities: formal learning, informal learning, and practice assessment. The MAINPORT online platform allows physicians to plan, record, and analyze their professional development. An outcomes-oriented approach, focusing on more than just the number of hours completed (Royal College of Physicians and Surgeons of Canada, 2023).

WHO: Global Guidelines and Support for Developing Countries. The World Health Organization (WHO) has developed the Global Strategy on Human Resources for Health: Workforce 2030, which positions CPD as a key component (World Health Organization, 2016). WHO recommendations emphasize: Institutionalizing CPD at the level of national policy. Linking CPD with licensing and accreditation systems. Leveraging digital technologies to expand CPD access in remote regions. Fostering cross-sectoral collaboration among governments, educational institutions, and professional communities (World Health Organization, 2016; Bassiouny & Elhadidy, 2022).

Figure 1. Comparative Table

Region/Organization	Mandatory	Coordination	Digital Tools	License Link
EU	Yes (in most)	National authorities + UEMS (European Union of Medical Specialists, 2025)	Yes (e-Portfolio)	Yes (General Medical Council, 2016)
USA	De facto (for certification)	ACCME (Accreditation Council for Continuing Medical Education, 2020)	Yes (MOC platforms, CME Trackers)	Yes (via board certification)
Canada	Yes	RCPSC (Royal College of Physicians and Surgeons of Canada, 2023)	Yes (MAINPORT)	Yes
WHO (guidelines)	Recommended	National governments	Yes (especially for LMICs*) (World Health Organization, 2016)	Recommended (Bassiouny & Elhadidy, 2022)

Source: Systematized by the author Note: *LMICs: Low- and Middle-Income Countries*

Strategic Guidelines for Ukraine. The Need for a Unified National CPD Strategy.

In light of healthcare reform and European integration, Ukraine requires a clearly defined national strategy for the Continuing Professional Development of medical personnel, aligned with WHO recommendations (World Health Organization, 2016; Bassiouny & Elhadidy, 2022). This strategy should encompass: Normative enshrinement of mandatory CPD participation. Creation of a unified digital CPD registry. Clear delineation of roles for the state, educational institutions, and professional associations. Integration of CPD with licensing and accreditation systems.

Implementation of a Digital CPD Ecosystem. Digitizing CPD should become a public administration priority, drawing on EU and North American experience (European Union of Medical Specialists, 2025; Royal College of Physicians and Surgeons of Canada, 2023). Proposed measures include: Developing a national CPD platform with functions for registration, record-keeping, assessment, and certification. Ensuring its integration with the registries of the MOH, NHSU, and NAQA. Introducing

electronic portfolios for physicians to document their educational trajectory. Providing access to online courses, simulation training, and international programs.

Expanding Managerial Autonomy of Educational Institutions

For effective CPD management, it is necessary to: Grant postgraduate education institutions greater financial and academic autonomy. Permit partnerships with international organizations. Stimulate the development of innovative educational programs tailored to regional and specialty-specific needs (Zaremba et al., 2015).

Introducing Motivational Mechanisms for Physicians. Public administration must ensure a tangible connection between CPD and professional advancement, as seen in successful international models (Accreditation Council for Continuing Medical Education, 2020; Royal College of Physicians and Surgeons of Canada, 2023; General Medical Council, 2016). Recommendations include: Incorporating CPD achievements as a criterion for attestation, license renewal, and appointment to leadership positions. Introducing financial incentives (bonuses, grants, compensation for course fees). Creating defined career pathways linked to educational activity.

Ensuring Equitable Access to CPD. The national strategy must provide for, in line with WHO guidance for equity (Bassiouny & Elhadidy, 2022): the development of regional CPD hubs. Mobile educational platforms for rural territories. State funding for CPD, particularly for primary care physicians. Inclusive program design for various categories of medical workers.

Conclusions

Postgraduate medical education is a critically important component of the healthcare system, ensuring professional mobility, adaptation to new clinical standards, and the enhancement of medical service quality (Grytsko, 2021a, 2021b). In the current climate of sectoral reform, digitalization, and European integration, the public administration of this field must be strategically oriented, systemic, and transparent.

This research has established that: Ukraine's postgraduate medical education system is fragmented, with insufficiently defined managerial authorities (Cabinet of Ministers of Ukraine, 2018; Ministry of Health of Ukraine, 2019; National Agency for Quality Assurance in Higher Education, 2021). There is a pressing need for the digital transformation of CPD, including the creation of a unified registry and the implementation of electronic educational trajectories (United States Department of Health and Human Services, 2021; Grytsko, 2021b). International experience (EU, USA, Canada, WHO) demonstrates effective CPD models that combine mandatory participation, digitization, accreditation, and motivational mechanisms (Accreditation Council for Continuing Medical Education, 2020; European Union of Medical Specialists, 2025; Royal College of Physicians and Surgeons of Canada, 2023; General Medical Council, 2016; World Health Organization, 2016). For Ukraine, it is essential to formulate a national CPD strategy, expand the autonomy of educational institutions, ensure equitable access to training, and integrate CPD into the licensing system (Bassiouny & Elhadidy, 2022; Zaremba et al., 2015).

The proposed strategic guidelines can serve as a foundation for modernizing governance mechanisms, enhancing the effectiveness of postgraduate medical education, and strengthening the human resource capacity of Ukraine's healthcare system.

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