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THE ROLE OF THE PRIMARY CARE PHYSICIAN IN THE PREVENTION OF NON-COMMUNICABLE DISEASES - A REVIEW

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ABSTRACT

Non-communicable diseases represent one of the greatest challenges for modern healthcare systems and are the leading cause of premature mortality worldwide. Effective prevention of these conditions requires integrated actions implemented at the primary healthcare level, which plays a key role in both primary and secondary prevention. The aim of this article was to present the role of the primary care physician in preventing non-communicable diseases, with particular emphasis on new care models, interdisciplinary teams, digital tools, and systemic barriers that limit the effectiveness of preventive measures. This work is a literature review. Publications in the field of public health and family medicine concerning the prevention of non-communicable diseases, the functioning of primary care, care integration, digitalization, and healthcare system preparedness were analysed. Selected sources were subjected to critical qualitative analysis, and the data obtained were synthesized thematically. The review results indicate that primary care forms the foundation for effective prevention of non-communicable diseases due to its capacity for early identification of risk factors, conducting screening tests, and long-term collaboration with patients. At the same time, the growing importance of interdisciplinary teams and digital tools, which complement the traditional care model, was emphasized. However, significant limitations remain in the form of organizational, staffing, and systemic barriers. The conclusions highlight the need for further development of integrated care models and research on effective strategies for implementing prevention in primary care.

KEYWORDS
Primary Healthcare, Non-Communicable Diseases, Integrated Care, Preventive Healthcare, Interdisciplinary Teams

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1. Introduction

Non-communicable diseases are currently the leading of death worldwide. This group primarily includes cardiovascular diseases, cancers, diabetes, and chronic kidney diseases. Epidemiological data indicate that these conditions account for over 43 million deaths annually, making them one of the most significant challenges for modern healthcare systems [9].

The development of non-communicable diseases is closely linked to modifiable risk factors such as unhealthy diet, hypertension, low physical activity, tobacco use, and air pollution [2]. Consequently, preventive healthcare actions focused on early detection and mitigation of these factors are of particular importance.

Primary care physicians (PCPs) play a central role in this regard, as they are often the first point of contact for patients within the healthcare system. Through regular visits and long-term relationships with patients, PCPs can identify individuals at elevated risk order appropriate diagnostic tests and refer patients for screening examinations. These measures provide the opportunity for early disease detection, often before clinical symptoms appear, thereby significantly enhancing the effectiveness of subsequent medical management.

Modern primary healthcare increasingly leverages digital tools and telemedicine, including health applications, remote monitoring systems, and teleconsultations, which enable ongoing patient engagement, early identification of risk factors, and support for lifestyle modification. At the same time, effective prevention of non-communicable diseases requires integrating preventive healthcare actions with long-term care and collaboration within interdisciplinary teams, comprising physicians, nurses, dietitians and other specialists.

It is important to note that the effectiveness of preventive healthcare in primary care also depends on systemic and organizational factors, such as resource availability, staffing levels, adherence to clinical guidelines, and the awareness of patients and local communities. Addressing these is essential to fully realize the potential of primary care in the prevention of non-communicable diseases.

2. Methodology

This article is a literature review examining the role of primary care physicians in the preventive healthcare of non-communicable diseases. Publications in Polish and English from the past ten years were analysed to include the most recent data on preventive interventions, integration of long-term care, the role of interdisciplinary teams, and the use of digital tools and telemedicine in primary care.

Selected sources were subjected to critical qualitative analysis. Particular attention was given to studies addressing:

- Preventive healthcare actions of primary care physicians in primary and secondary prevention of non-communicable diseases.
- Effects of integrating preventive healthcare actions with long-term care.
- The significance of interdisciplinary teams in primary healthcare.
- The use of digital tools and telemedicine in the prevention of non-communicable diseases.
- Systemic and organizational barriers limiting the effectiveness of preventive healthcare.

The literature selection process included:

- Searching databases such as PubMed, Scopus, Web of Science, and ScienceDirect.
- Using keywords related to "primary care", "preventive healthcare", "non-communicable diseases", "interdisciplinary teams", "digital health", and "telemedicine".
- Assessing methodological quality, including clinical study designs, systematic review, qualitative studies, and observational research.

Data from the selected publications were thematically synthesized, allowing the identification of key areas of preventive healthcare actions that influence their effectiveness. The analysis was narrative in nature, enabling the presentation of the current state of knowledge, identification of research gaps, and highlighting potential directions for improving preventive healthcare practice in primary care.

3. The Role of Primary Healthcare in the Prevention of Non-Communicable Diseases

Literature analysis indicates that primary healthcare plays a key role in the prevention of non-communicable diseases, particularly in the context of the increasing burden of conditions such as cardiovascular diseases, diabetes cancers, and chronic respiratory diseases on healthcare systems. Primary care is emphasized as the most accessible level of healthcare, enabling long-term patient contact and continuity of care, which facilitates effective influence on modifiable risk factors.

The literature highlighted that interventions carried out within primary care, such as health promotion, patient education, and health counselling, can significantly contribute to reducing the incidence of cardiovascular diseases, diabetes, and other chronic non-communicable conditions. Furthermore, the close relationship between the primary care physician and the patient, along with knowledge of the patient's health and social circumstances, allows for the individualization of preventive actions, thereby enhancing their effectiveness. Consequently, primary healthcare is considered the foundation of systemic preventive measures aimed at mitigating the health impacts of non-communicable diseases at the population level [2,3].

4. The Role of Primary Care Physicians in Primary and Secondary Care Prevention of Non-Communicable Diseases

The analysed publications indicate that primary care physicians (PCPs) play a crucial role in both primary and secondary prevention of non-communicable diseases. In primary prevention, PCPs work to identify unhealthy behaviors and educate patients on modifying them. Key activities in this area include promoting a healthy lifestyle and providing information on risk factors related to diet, tobacco use, and physical inactivity. Through continuous patient contact, physicians can individualize health recommendations and support gradual behavioral changes, which is particularly important for diseases whose development is largely influenced by lifestyle factors [2,10].

In the context of secondary prevention, PSPs play a significant role in the early detection of chronic diseases before clinical symptoms become advanced. Standard procedures in primary care practice include routine blood pressure measurements, blood glucose testing, and lipid profiling, which allow the identification of metabolic disorders and cardiovascular risk in the preclinical stage. Regular monitoring of health parameters and referral for further screening enables earlier implementation of therapeutic interventions and lifestyle modifications, directly impacting diseases progression [2,10].

Furthermore, PSPs are essential in conducting screening programs within primary care structures. Survey studies of family physicians indicate that a substantial proportion of practitioners believe that primary care should play a central role in preventive programs, particularly in health promotion and education. However, greater engagement is observed in routine primary activities than in organized screening programs conducted separately from daily clinical practice [13]. In everyday practice, this means that PSPs not only order tests but also participate in the diagnostic and preventive process- from identifying patients at increased risk to interpreting results and referring them for further diagnostics or treatment.

An integral component of the PSP's role in secondary prevention is promoting patient adherence to recommended screening, including regular mammograms, cytology tests, colorectal cancer screenings, and other age- and gender-appropriate examinations. Analyses indicate that although the role of PCPs in cancer prevention is recognized as significant, its practical implementation is often insufficient in clinical practice, highlighting the need for further training and organizational support [13].

In summary, PCPs function in daily practice both as health educators and coordinators of screening diagnostics and monitoring of at-risk patients. Their position as the first point of contact within the healthcare system provides a unique opportunity to influence health behaviors and detect diseases early, leading to more effective prevention of non-communicable diseases.

5. Effectiveness of Preventive Healthcare Interventions in Primary Care

A review of the literature on the role of primary healthcare in preventing non-communicable diseases indicates that primary care provides an appropriate environment for implementing preventive healthcare interventions due to continuity of care, regular patient contact, and the possibility of long-term influence on risk factors. The author emphasizes that the effectiveness of these interventions primarily stems from the combination of health promotion, early identification of risk factors, and ongoing monitoring of patients' health status. The article notes that preventive actions in primary care are not one-off interventions but are based on systematic risk assessment and gradual support for patients in lifestyle modification, representing a crucial component of non-communicable disease prevention in clinical practice [17].

Scientific literature describes that preventive interventions conducted within primary care can lead to positive changes in modifiable risk factors for non-communicable diseases, such as tobacco use, diet, physical activity, and obesity. Reviews of qualitative and quantitative studies indicate that multidimensional interventions in primary care- including health education, behavioral counselling and lifestyle change support- contribute to improved patient knowledge of risk factors and to the reduction of adverse health behaviors. One review noted that interventions aimed at improving patients' nutritional competencies in modifying behaviors produced positive outcomes, particularly in supporting smoking cessation and education regarding a healthy diet [16].

Health education and raising patient awareness are especially important because they enhance patients' ability to understand risks and independently implement lifestyle changes. For example, interventions conducted in primary care settings using group or individual educational sessions were associated with greater patient engagement in self-monitoring and preventive actions, enabling better control of physical activity levels and body weight in populations at increased risk of chronic diseases [16].

The literature indicates that the effectiveness of preventive healthcare interventions in primary care largely depends on the organization of the healthcare system and resource availability. Analyses show that a primary care- based approach, encompassing integrated activities in health promotion, preventive care, and long-term monitoring of at-risk patients, can yield measurable health benefits in both high- and middle-income countries. It is emphasized that the effectiveness of this model requires appropriately trained healthcare personnel, access to basic diagnostics, and the possibility of systematic patient contact [5].

Moreover, literature suggests that coordinating preventive healthcare actions within primary care with national or local health policies can further enhance the effectiveness of early detection and management of non-communicable diseases. A review on NCD integration in primary care highlighted that where common policy frameworks, clinical guidelines, and support tools for physicians exist, preventive outcomes are observed more frequently [20].

6. The Importance of Digital Tools and Telemedicine in the Prevention of Non-Communicable Diseases

In recent years, digital tools and telemedicine have gained significant as elements supporting preventive healthcare for non-communicable diseases in primary care. The digitalization of health services encompasses a wide range of technologies, from mobile health applications and teleconsultations to advanced medical information systems and health monitoring platforms. Such solutions enable continuous patient contact outside traditional visits, facilitating early identification of risk factors, monitoring progress, and supporting the maintenance of a healthy lifestyle. The literature emphasizes that telemedicine and digital tools can assist both patients and healthcare personnel in implementing preventive healthcare measures, allowing more efficient use of primary care resources and increasing the accessibility of healthcare services, particularly in areas with limited access to traditional medical care [18,19].

Mobile health applications and communication platforms play a key role in health promotion and behavior change. Numerous studies highlight tools that engage patients in self-monitoring, expanding knowledge of risk factors, and taking preventive actions. Systems such as text message reminders, activity tracking apps, or interactive applications supporting dietary modification have proven effective in raising patient awareness and improving attitudes toward a healthy lifestyle, which is particularly relevant in the prevention of conditions such as diabetes and hypertension [12].

Telemedicine, defined as the provision of healthcare services at a distance through information and communication technologies, represents another important element supporting the prevention of non-communicable diseases. Research indicates that teleconsultations and telemonitoring are particularly effective for monitoring patients with chronic conditions, enabling quicker responses to health deterioration and therapy

adjustments without the need for in-person visits [4]. Telemedicine can also improve access to healthcare, especially for individuals living in rural areas or regions with limited medical services, which is crucial in the context of preventive healthcare and early diagnosis of non-communicable diseases [18].

7. Integration of Preventive Healthcare and Long-Term Care in Primary Care

Literature analysis on the implementation of preventive and control measures for non-communicable diseases within primary care indicates that effective integration of preventive healthcare in primary care settings requires a coordinated approach combining health promotion, risk factor identification, and patient care coordination. An article by Widyahening emphasizes that primary care has the potential for both health promotion and early intervention, owing to continuous patient contact and the ability to monitor health status. Factors supporting preventive outcomes include regular physician-patient interaction, education on risk factors, and the implementation of multidimensional health strategies encompassing lifestyle modification and health parameter monitoring, contributing to the reduction of cardiovascular diseases, diabetes, and other non-communicable conditions [17].

A similar perspective is by Xu and Leon, who analysed factors influencing the integration of non-communicable disease management in healthcare. Theu highlighted that effective implementation depends on several key systemic elements, including political and organizational support, the readiness of the healthcare system to Implement NCS integration strategies, as well as human resources and coordination of care teams. Their analysis indicated that integration of prevention and control of non-communicable diseases in primary care was observed in various configurations, but outcomes were more pronounced where consistent policy frameworks and adequate support mechanisms (e.g. training, clinical guidelines, patient registration systems) were in place [20].

Moreover, integration of preventive and long-term care requires not only coherent policy frameworks but also effective coordination at the clinical practice level. Studies on integrated care models for patients with chronic diseases show that integration encompasses not only health promotion and education but also joint clinical care organization. In these models, primary care teams deliver a comprehensive package of medical services, where activities such as identification of high-risk patients, health education, support for self-monitoring, and collaboration with caregivers and families are combined into a single coordinated care process. Such comprehensive approaches enhance care coordination, reduce fragmentation of interventions, and can lead to improved patient quality of life and healthcare system efficiency. For instance, implementation of integrated care packages in primary care facilities in various countries demonstrated that all model components- from patient identification and education to collaboration with caregivers- can be carried out within routine primary care practice, although full integration depends on available resources and organizational support [15].

Additionally, literature highlights that systemic support and healthcare infrastructure, including patient information management tools and training for primary care staff, are key determinants for successfully integrating preventive healthcare with long-term care. Reviews of qualitative studies on implementing NCD-related services in primary care emphasize that effective integration depends on the alignment of health policies, system readiness to adopt new strategies, and adequate support for healthcare workers, including leadership and training. These systemic elements are crucial for maintaining continuity of preventive activities over time and linking them with health monitoring and chronic disease management. In practice, this means that preventive actions are not implemented as isolated interventions but form an integral part of a care process that addresses both the health and social needs of the patient while supporting primary care personnel in effectively managing patients with non-communicable diseases [20].

8. The Role of Interdisciplinary Teams in Primary Care

The literature increasingly emphasizes the importance of interdisciplinary teams in the management of patients with non-communicable diseases within primary care. These teams include various categories of healthcare professionals, such as physicians, nurses, pharmacists, dietitians, physiotherapists, and social workers, who collaborate in a coordinated manner to provide comprehensive care for patients with diverse health needs. The interdisciplinary model aims to improve care quality by clearly delineating roles and leveraging the complementary competencies of team members in managing chronic diseases and their prevention [4].

Research indicates that incorporating interdisciplinary collaboration in primary care can yield positive clinical and process outcomes. For example, an analysis of clinical data comparing interdisciplinary team-

based care with traditional primary care for patients with hypertension, hyperglycemia and type 2 diabetes showed that the group organized around the interdisciplinary model more frequently achieved therapeutic goals (e.g. better blood pressure, glycemia, and lipid profiles) and exhibited higher rates of screening completion that the group receiving standard care [6].

Systematic literature reviews on interprofessional collaboration in primary care confirm that interdisciplinary teamwork can positively impact patient health outcomes, particularly regarding cardiovascular diseases and diabetes. A review of 65 studies found that most team-based interventions in primary care were associated with improved outcomes for patients at cardiovascular risk and with other chronic health conditions, with the strongest effects observed in populations with metabolic disorders and cardiovascular risk factors [1].

Interdisciplinary teams also support the integration of preventive healthcare and holistic care that extends beyond individual clinical interventions. Qualitative studies on the implementation of integrated care for patients with diabetes and hypertension show that primary care team members recognise the benefits of including specialists from various fields-not only physicians and nurses but also health educators, pharmacists, and community representatives- which allows for better care planning, greater patient engagement, and more effective educational and clinical monitoring activities [14].

9. Limitations of Primary Care in the Prevention of Non-Communicable Diseases

These literature reports collectively suggest that achieving measurable health outcomes requires not only individual clinical interventions but also organizational and systemic actions that integrate the prevention of non-communicable diseases into routine primary care practice. This confirms that an approach based on the integration of health promotion, early diagnosis, and care coordination contributes to more comprehensive and effective prevention of non-communicable diseases across various healthcare system contexts [17,20].

Review studies also reveal limitations in the functioning of primary care in the prevention and control of non-communicable disease. Analyses of healthcare system readiness indicate insufficient organization and preparedness of primary care facilities, particularly in the prevention and management of non-communicable diseases, including inadequate staffinh, lack of diagnostic resources, and limited implementation of clinical guidelines and standards of care [2,10].

Despite the significant potential of primary care in preventing non-communicable diseases, the reviewed publications highlight numerous barriers that reduce the effectiveness of implemented actions. The most frequently mentioned barriers include limited consultation time, excessive administrative workload, and shortages of healthcare personnel. Authors also note insufficient implementation of clinical guidelines and limited availability of diagnostic resources at the primary care level. An additional factor hindering preventive efforts is low patient motivation for lasting lifestyle changes, which negatively impacts the effectiveness of interventions carried out by primary care physicians [8,10].

Furthermore, literature indicates that the limited readiness of healthcare systems at the primary care level represents a significant barrier to the implementation of preventive measures targeting individuals at risk of non-communicable diseases. Systemic deficiencies include not only staffing and equipment shortages but also the lack of comprehensive strategies and coherent planning frameworks for non-communicable disease management in primary care. Systematic reviews show that in many countries, primary care facilities do not have sufficient medical resources or clinical guidelines necessary for the full implementation of preventive and control measures for non-communicable diseases, which adversely affects the effectiveness of long-term monitoring of at-risk patients. These findings confirm that fragmented organizational approaches and the absence of unified standards limit the potential of primary care as an effective tool for non-communicable disease prevention [7,8].

Additionally, barriers related to patient and community health literacy can further reduce the effectiveness of preventive interventions in primary care. Qualitative studies conducted in low- and middle-income countries indicate that lack of awareness regarding the necessity of regular screenings, limited knowledge of risk factors, and insufficient understanding of available preventive services result in low utilization of such services. Consequently, patients often seek primary care only when the disease has reached an advanced stage, placing additional burden on both patients and the healthcare system. These issues highlight that effective prevention in primary care requires not only structural changes within the health system, but also educational and communication efforts directed at communities to improve knowledge of preventive care and enhance patient engagement [9,11].

10.The Importance of Primary Care as a Pillar of Non-Communicable Disease Prevention

Literature analysis indicates that primary healthcare plays a key role in the prevention of non-communicable diseases, serving as the first and most accessible link in the healthcare system [2,5,17]. Primary care physicians (PCPs), through continuous patient contact, are able to identify individuals at increased risk, monitor health parameters, and provide educational interventions aimed at lifestyle modification. This approach support both primary prevention, by reducing the occurrence of risk factors, and secondary prevention, through early detection of chronic diseases [2,10,16].

Studies show that the effectiveness of preventive intervention in primary care is higher where there is systematic integration of health education, patient monitoring, and behavioral support [3,5,17]. In practise, this means that PCPs not only refer patients for screening but also participate in result analysis, tailor recommendations individually, and support patients in long-term lifestyle changes [2,10,13,16].

Furthermore, the literature indicates that a primary care model based on continuous patient care facilitates better coordination of preventive activities at the healthcare system level. Integration of health promotion, patient education, risk factor monitoring, and interdisciplinary collaboration increases the effectiveness of non-communicable disease prevention, reduces care fragmentation, and allows for optimal use of available resources [4,6,15,20].

In summary, primary care can be regarded as a cornerstone of non-communicable disease prevention, with its importance derived from accessibility, continuity of patient contact, and the ability to combine educational, diagnostic, and therapeutic activities within a single, integrated care process [5,17,20]. Effective functioning of primary care in this regard, however, requires adequately trained personnel, diagnostic resources, and systemic support, including consistent policy frameworks and clinical procedures [8,15,20].

11.Primary and Secondary Prevention- Realistic Opportunities vs. Practical Limitations

Literature analysis emphasizes that primary care physicians (PCPs) play a key role in both primary and secondary prevention of non-communicable diseases [2,10,13]. In primary prevention, their role involves early identification of risk factors such as unhealthy diet, hypertension, obesity, and tobacco use, as well as implementing educational and behavioral interventions aimed at modifying adverse health behaviors [2,16,17]. Studies indicate that an individualized approach by PCPs taking into account both the patient's health status and social determinants, increases the effectiveness of preventive interventions [10,16,17].

In the context of secondary prevention, PCPs are crucial in the early detection of chronic diseases before clinical symptoms become apparent. Routine screening, such as blood pressure measurement, blood glucose, and lipid profiling, allow identification of metabolic and cardiovascular disorders at a preclinical stage [2,10,13]. The literature highlights that incorporating health monitoring into daily primary care practice increases the likelihood of early therapeutic intervention and more effective control of disease progression [5,20].

Moreover, PCPs act as coordinators within integrated preventive programs. Research shows that physician involvement in the planning, implementation, and monitoring of such programs enhances the effectiveness of interventions and improves patient adherence to screening recommendations, including screening for cancers and chronic diseases [13,15]. In practice, this means that PCPs not only order tests but also educate patients, interpret results, and refer them for further diagnostics or treatment, enabling a more comprehensive approach to non-communicable disease prevention [2,13,15].

Literature findings emphasize that the effectiveness of PCPs' preventive actions depends not only on their knowledge and competencies but also on systemic support, including access to diagnostic resources, clinical guidelines, and the possibility of interdisciplinary collaboration [4,6,8,20]. A comprehensive approach that integrates primary and secondary prevention within routine primary care practice allows for more effective risk factor reduction, early disease detection, and improvement of patient health outcomes, as confirmed by studies conducted across various countries and healthcare systems [5,15,17,20].

12.New Care Models: Integration, Interdisciplinary Teams, and Digitalization

The literature increasingly emphasizes that effective prevention of non-communicable diseases in primary care requires not only the individual role of the physician but also a systemic approach based on the integration of activities, interdisciplinary collaboration, and the use of digital tools [4,19,20]. Integrated care models in primary care combine primary and secondary prevention with long-term care, enabling coherent management of patients with chronic diseases and those at high cardiovascular or metabolic risk [7,11]. This

integration does not replace the traditional role of the primary care physician (PCP) but supports it by complementing competencies and coordinating team activities.

Interdisciplinary teams in primary care include physicians, nurses, pharmacists, dietitians, physiotherapists, and social workers who collaborate in a coordinated manner to provide comprehensive care for patients [1,4,6]. Literature indicates that such collaboration enhances the effectiveness of non-communicable disease prevention by leveraging the comprehensive skills of team members- from patient education and monitoring health parameters to supporting self- management of diseases [6,14]. Comparative studies show that patients managed by interdisciplinary teams achieve better clinical outcomes and more frequently complete recommended screenings compared to those receiving traditional primary care [1,6].

Digitalization and telemedicine represent another component supporting these care models by enabling remote health monitoring, increasing success to health consultations, and promoting patient self- management [12,18,19]. Digital tools, such as mobile applications, communication platforms, and reminder systems, do not compete with interdisciplinary team activities but rather complement them, allowing systematic monitoring of health parameters, reminders for screenings, and support for lifestyle modifications [3,12,19].

The combined implementation of integration, interdisciplinary teams, and digitalization creates a care model in which these elements complement each other, enhancing preventive effectiveness and reducing fragmentation of care [4,15,20]. Literature indicates that in primary care practice, the best results are achieved where there is a coherent system strategy, providing both adequate training and support for staff, access to digital tools, and mechanisms for coordinating team activities [15,19,20].

13.Systemic Barriers as a Key Challenge for Effective Prevention

Analysis of the literature review clearly indicates that despite the significant potential of primary healthcare in preventing non-communicable diseases, the effectiveness of implemented interventions is substantially limited by systemic barriers. Many studies emphasize that insufficient readiness of healthcare systems at the primary care level constitutes one of the main challenges for the effective implementation of preventive measures and long-term management of non-communicable diseases [7,8]. These limitations are multidimensional, encompassing organizational, workforce-related, and structural aspects.

One of the most frequently reported issues is a shortage of human resources and overburdening of primary care staff, which translates into limited consultation time and reducer opportunities for in-depth health education and individualized preventive counselling [8,10]. Authors note that under such conditions, preventive activities are often subordinated to intervention addressing immediate patient health issues, which diminishes the long-term effectiveness of non-communicable disease prevention [5,10]. Insufficient diagnostic resources and limited implementation of clinical guidelines further hinder early identification of at-risk patients and systematic monitoring of their health status [2,8].

Another significant barrier involves gaps in care coordination and the integration of preventive activities into routine primary care practice. Studies indicate that fragmented organizational approaches, lack of coherent strategies, and insufficient systemic support for integrating prevention with long-term care limit the potential of primary care as an effective tool for non-communicable disease prevention [15,20]. In practice, this means that preventive actions are often carried out as separate interventions rather than as part of a continuous, coordinated patient care process.

The literature also highlights patient-related barriers that exacerbate systemic limitations in primary care. Low health literacy, limited knowledge of risk factors, and insufficient understanding of the importance of regular preventive screenings result in low utilization of available preventive services [11]. Consequently, patients often seek primary care only at advanced stages of disease, reducing the effectiveness of preventive measures and increasing the burden on the healthcare system.

In summary, systemic barriers constitute a key challenge for effective prevention of non-communicable diseases in primary care. Literature findings indicate that without simultaneous strengthening of primary care resources, improvement of care organization, better integration of activities, and increased patient health awareness, the preventive potential of primary care will remain underutilized [5,7,8,10,11,20].

14.Conclusions

The literature review confirms that primary healthcare plays a crucial role in the prevention of non-communicable diseases and forms the foundation for efforts aimed at reducing the burden of these conditions on the population. Due to its high accessibility, continuity of care, and long-term patient relationships, primary care has a unique potential to implement both primary and secondary prevention measures, including risk factor identification, health education, early disease detection, and monitoring of patents at elevated risk.

The analysis indicates that the primary care physician (PCP) performs a multidimensional role in the prevention of non-communicable diseases- as the first point of contact with the healthcare system, a health educator, a coordinator of screening programs, and long-term caregiver for patients with chronic conditions. The effectiveness of preventive measures is greatest when they are systematic, integrated, and tailored to individual patient needs, rather than limited to one-off interventions.

The review also highlights the growing importance of new care models in primary care, which combine the integration of preventive activities with long-term care, the development of interdisciplinary teams, and the use of digital tools and telemedicine. These elements do not function as competing solutions but rather complement each other. This approach enables more effective patient monitoring, supports behavioral change, and improves coordination of care for individuals with non-communicable diseases.

At the same time, the literature clearly identifies significant systemic barriers that limit the full potential of primary care in disease prevention. The most critical barriers include staff shortages, limited consultation time, insufficient diagnostic resources, fragmented organization of care, and low patient health literacy. These obstacles reduce the effectiveness of preventive activities and underscore the need to strengthen systemic support for primary healthcare.

Based on the analysed data, future research should focus on evaluating the effectiveness of integrated care models in primary care, incorporating interdisciplinary collaboration and the use of digital tools for long-term prevention of non-communicable diseases. Another important area for further study is identifying factors that facilitate the successful implementation of preventive measures in various systemic contexts and developing strategies to increase patient engagement in preventive activities. Such an approach could contribute to a more effective utilization of primary care's potential as a key component of healthcare systems in combating non-communicable diseases.

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