REVIEW ARTICLE

CONTENTS

Barriers to physical activity counseling in primary health care: identifying gaps in training and implementation

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ABSTRACT

Physical activity (PA) is a key factor in the prevention and treatment of non-communicable diseases. Despite the proven effectiveness of various PA interventions, their implementation in real-world settings remains suboptimal. Numerous barriers hinder effective PA counseling, potentially preventing patients in PHC settings from achieving adequate levels of physical activity. The identified barriers include lack of time, insufficient knowledge, inadequate training in PA counseling, and lack of confidence among healthcare professionals. These challenges highlight a training gap in primary healthcare education. A systematic literature review was conducted, focusing on studies published between 2018 and 2024, with a particular emphasis on systematic reviews. Primary Health Care (PHC) provides an appropriate environment for PA counseling, as a significant portion of the population has regular contact with family physicians. Understanding the barriers to promoting PA at the PHC level is a crucial first step toward their elimination, ultimately contributing to improved health outcomes not only for individuals but also for the broader population.

KEY WORDS: physical activity, primary care, GP, knowledge, skills, attitudes

Wiad Lek. 2025;78(3):565-570. doi: 10.36740/WLek/202448 DOI

INTRODUCTION

PHYSICAL ACTIVITY AS A KEY ELEMENT IN THE PREVENTION AND TREATMENT OF NON-COMMUNICABLE DISEASES

Physical activity (PA) plays a crucial role in the prevention and treatment of non-communicable diseases related to lifestyle, such as diabetes, cardiovascular diseases, obesity, cancer, respiratory diseases, and musculoskeletal disorders. Insufficient physical activity, defined as engaging in less than 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity per week, has been recognized as a global pandemic affecting nearly one-third of adults worldwide [1, 2].

The World Health Organization (WHO) recommends implementing systematic assessments of patients' physical activity levels and establishing counseling services to promote increased physical activity and reduce sedentary behavior. These initiatives should be carried out by appropriately trained healthcare personnel as a priority within the healthcare system [3].

Even a slight increase in physical activity levels can yield significant health benefits [4, 5]. Therefore, integrating and promoting physical activity among patients with lifestyle-related diseases is a crucial component of treatment aimed at addressing the underlying causes of disease development and persistence [6]. Healthcare professionals play a key role in this process, and primary healthcare clinics provide an optimal setting for physical activity counseling. Primary care physicians and family doctors have the first and repeated contact with the majority of the population, allowing for systematic assessments of physical activity levels and its inclusion in routine healthcare services.

Despite the well-documented health benefits of physical activity and widespread awareness of its importance, physical inactivity remains more prevalent than any other modifiable risk factor [7]. Various factors can hinder the implementation and maintenance of

adequate physical activity levels, differing in nature, intensity, location, and interconnections. The objective of this study is to identify the barriers that prevent primary care physicians from effectively implementing and maintaining physical activity at appropriate levels among their patients.

AIM

This study aims to identify and analyze the barriers that hinder primary healthcare physicians from effectively promoting, implementing, and maintaining adequate levels of physical activity among their patients.

MATERIALS AND METHODS

To achieve the purpose of this article, a systematic literature review was conducted, focusing on studies published between 2018 and 2024, with a particular emphasis on systematic reviews. The primary objective was to identify articles that reported data on factors influencing the implementation of physical activity interventions at the primary healthcare level, where physical activity was the main outcome.

The literature search was conducted using PubMed, Scopus, Web of Science, and Google Scholar, applying predefined inclusion and exclusion criteria. Studies were included if they were peer-reviewed, published between 2018 and 2024, focused on primary healthcare settings, and specifically analyzed barriers and facilitators to implementing physical activity interventions by primary care physicians. Only studies where physical activity was the primary intervention outcome were considered. Articles that were not conducted in primary healthcare settings, did not focus on implementation barriers or facilitators, or consisted of grey literature, conference abstracts, or opinion pieces were excluded.

A structured search strategy was employed, utilizing the following keywords and MeSH terms: "Physical activity promotion" AND "primary healthcare", "Exercise prescription" AND "general practitioners", "Barriers to physical activity counseling" AND "primary care", and "Facilitators of physical activity intervention" AND "family medicine". The selection process involved a two-stage screening: title and abstract screening to exclude irrelevant studies, followed by a full-text review to assess eligibility based on predefined criteria.

For each selected study, data were extracted regarding study design, sample characteristics (healthcare professionals and patient groups), reported barriers and facilitators to implementing physical activity interventions, and the effectiveness of implementation strategies. The collected data underwent thematic synthesis to identify recurring themes in reported barriers and facilitators, and a coding framework was developed to categorize influencing factors. When statistical data were available, a quantitative synthesis was performed, analyzing the prevalence of specific barriers such as lack of time, inadequate training, or patient resistance. Comparative analyses were conducted to identify differences across various healthcare systems and regions.

Since this study relies exclusively on previously published research, no direct ethical approval was required. Only publicly available, peer-reviewed data were used to ensure credibility and reliability. However, the study has certain limitations, including its restriction to published literature without the inclusion of expert interviews or new empirical data. Additionally, variability in study designs and healthcare systems may affect the generalizability of findings, and publication bias may limit the representation of studies with negative or non-significant findings.

By systematically reviewing existing literature, this study provides an evidence-based overview of the key barriers and facilitators affecting the implementation of physical activity interventions in primary healthcare settings. The findings offer valuable insights into potential strategies to enhance the integration of physical activity promotion into routine medical practice.

REVIEW

Primary healthcare plays a crucial role in both individual and community health by supporting, encouraging, and facilitating the implementation, self-management, and maintenance of healthy behaviors. Research indicates that interventions at the primary healthcare level can effectively increase patients' physical activity levels [8]. However, numerous studies highlight significant barriers that prevent primary care physicians from successfully implementing and sustaining physical activity interventions among their patients.

Woodhead et al. (2023) [9] report that despite a growing body of evidence supporting the benefits of physical activity and a broad consensus that healthcare professionals should promote it, many physicians do not engage in discussions about it with their patients. Their study found that up to 72% of primary care physicians do not address physical activity with patients. The primary barriers identified include a lack of time, insufficient formal education or training, conflicting professional priorities, and the perception that patients lack motivation to engage in physical activity. Physicians also reported insufficient knowledge of physical activity guidelines, the benefits of exercise promotion, and effective strategies for integrating it into patient

care. Additionally, concerns about patient safety in exercise programs were frequently mentioned, along with unfamiliarity with disease-specific physical activity guidelines, such as those for diabetes. Some physicians even questioned the effectiveness of the guidelines they were expected to implement. Furthermore, certain doctors perceived their medical training as being primarily focused on diagnosing and treating diseases rather than on promoting lifestyle behaviors.

A significant finding was that physicians unfamiliar with relevant physical activity guidelines were nearly twice as likely to report low confidence in discussing exercise with patients compared to those who were knowledgeable about the guidelines. Lack of confidence emerged as a key factor hindering physical activity promotion. Personal engagement in physical activity also played a role in physicians' motivation to encourage exercise among their patients, as those who were physically active themselves were seen as more credible sources of advice [10]. Conversely, physicians who were inactive or overweight often reported discomfort or even a sense of hypocrisy when recommending exercise to their patients.

Lowe et al. (2022) [11] found that family doctors generally recognize the importance of physical activity and feel confident discussing it with patients. In their study, 98.9% of primary care physicians acknowledged the significance of physical activity, yet only 35.7% reported being at least somewhat familiar with current physical activity guidelines. Furthermore, over one-quarter of respondents had never heard of such guidelines. The most commonly cited barriers to discussing physical activity with patients were lack of time and the perception that patients were uninterested or unwilling to engage in exercise. Some physicians also expressed the belief that promoting physical activity was not part of their professional role as general practitioners. When asked about existing training programs related to physical activity, 53.2% of respondents reported never having heard of such training, while 73.2% had never participated in any.

Similarly, a systematic review by Albert et al. (2020) [12] identified multiple barriers that hinder the effective promotion of physical activity in primary healthcare settings. The most frequently mentioned obstacles included limited consultation time, insufficient knowledge and skills in promoting physical activity, uncertainty about effective strategies, a lack of appropriate tools and educational materials, and low patient motivation. While healthcare professionals were generally open to promoting physical activity, these barriers prevented its effective integration into routine medical practice.

These findings were further supported by Wolker Manta et al. (2022) [13], who confirmed that the most significant barriers to implementing physical activity promotion in primary healthcare included time constraints and limited resources, such as inadequate staff, equipment, and space. Additionally, insufficient training for medical personnel was identified as a key factor limiting the successful implementation of physical activity programs. Other obstacles included low motivation and engagement among both healthcare staff and patients, as well as a lack of confidence in the effectiveness of physical activity interventions.

A study conducted by Silva et al. (2022) [14] explored the factors influencing physicians' promotion of physical activity and their knowledge of its health benefits. The results indicated that physicians specializing in family medicine and those working in primary healthcare settings were more likely to promote physical activity in clinical practice. However, similar barriers to those identified in previous studies were observed, including limited consultation time, a lack of clear protocols, inadequate training, and the perception that patients were generally unmotivated to change their behavior. Additionally, the study highlighted the role of physicians' own attitudes and behaviors. It was found that fewer than one-third of the participating physicians met the recommended levels of physical activity, while 64.5% reported a predominantly sedentary lifestyle, spending at least seven hours per day sitting. Notably, this sedentary behavior was more common among family physicians and those working in primary healthcare settings. The authors also pointed out that primary care physicians, particularly family medicine specialists, often exhibited poorer health behaviors compared to other medical professionals.

Wattanapisit et al. (2018) [15] emphasized the urgent need for increased training in physical activity counseling within primary healthcare and family medicine. Their systematic review of literature assessing physical activity counseling in primary care and family medicine training revealed that lack of time, insufficient knowledge, and inadequate training were the most frequently reported barriers to counseling patients on exercise. These findings align with the conclusions of previous studies and highlight a gap in medical education and training related to lifestyle interventions. The authors also noted that short training programs (3–5 hours) did not significantly improve the quality or frequency of physical activity counseling. Even longer training sessions (20 hours), which enhanced participants' knowledge and confidence in lifestyle medicine consultations, failed to improve physicians' attitudes toward lifestyle counseling. This suggests that education programs for physical activity counseling should focus on approach-

es that enhance participants' attitudes and self-efficacy rather than merely providing information.

Overall, the reviewed studies highlight several consistent barriers that hinder the effective promotion of physical activity in primary healthcare settings. The most frequently reported obstacle is a lack of time during patient consultations, which limits the opportunity for discussions about exercise. Additionally, insufficient training and knowledge about physical activity guidelines reduce physicians' confidence in recommending exercise. Limited familiarity with evidence-based strategies for promoting physical activity results in hesitation to integrate it into routine practice. Conflicting professional priorities lead some physicians to believe that their primary responsibility is diagnosing and treating diseases rather than advocating for lifestyle changes. Low confidence and personal inactivity among physicians further act as barriers, as inactive doctors may feel uncomfortable recommending exercise to their patients. A lack of institutional support, including insufficient resources, inadequate staff training, and the absence of structured physical activity counseling programs, also prevents effective implementation. Finally, perceived patient resistance discourages some physicians from initiating discussions about physical activity.

Despite widespread recognition of the importance of physical activity, these barriers continue to limit its effective promotion in primary healthcare settings. Addressing these challenges requires enhanced education and training programs, structured implementation strategies, and increased institutional support to ensure that physical activity counseling becomes a routine part of medical practice [16].

CONCLUSIONS

The findings of this study highlight the significant barriers that hinder the effective promotion and integration of physical activity counseling within primary healthcare settings. Despite the well-documented health benefits of regular physical activity and the consensus that healthcare professionals should actively encourage it, many primary care physicians do not engage in discussions about exercise with their patients. The most commonly identified barriers include lack of time during consultations, insufficient knowledge and training on physical activity guidelines, low confidence in promoting exercise, conflicting professional priorities, and limited institutional support. Additionally, physicians' own physical activity levels and personal attitudes toward exercise play a crucial role in their likelihood of discussing and promoting physical activity with patients. Those who are personally active tend to be more confident in recommending exercise, while those who lead sedentary lifestyles or are overweight may feel uncomfortable or even hypocritical in advising their patients to engage in physical activity.

Another critical finding is that many physicians are unfamiliar with official physical activity guidelines, with some having never heard of them. This lack of awareness translates into a lower likelihood of initiating discussions about exercise and a reduced ability to provide clear and evidence-based recommendations. Even among those who recognize the importance of physical activity, many struggle with a lack of structured implementation strategies, inadequate resources, and uncertainty about the most effective ways to encourage behavioral change in patients. Additionally, some physicians view physical activity promotion as being outside their professional scope, believing that their primary role is to diagnose and treat diseases rather than to engage in preventive health counseling.

The evidence further suggests that short-term training programs on physical activity counseling are insufficient in significantly improving physicians' confidence and engagement in exercise promotion. While longer training programs have been shown to improve knowledge and self-efficacy, they do not necessarily change physicians' attitudes toward lifestyle counseling. This highlights the need for more comprehensive, interactive, and continuous education programs that focus not only on knowledge but also on building physicians' confidence and motivation to engage in physical activity promotion as part of routine care.

Moreover, institutional support and structural changes within healthcare systems are essential for integrating physical activity promotion into primary care practice. Physicians need clear guidelines, dedicated consultation time, educational resources, and workplace policies that encourage and facilitate discussions about exercise with patients. Healthcare organizations should also provide incentives for primary care physicians to engage in preventive health measures, including physical activity counseling, and should promote a culture of health and wellness within medical institutions.

Addressing these barriers requires a multi-faceted approach that includes policy changes, enhanced training programs, the development of evidence-based physical activity promotion strategies, and increased awareness among both physicians and patients. Encouraging doctors to adopt physically active lifestyles themselves could also have a positive impact, as active physicians are more likely to engage in exercise promotion and serve as credible role models for their patients.

Despite the challenges, the potential benefits of integrating physical activity promotion into primary healthcare are substantial. Regular physical activity is one of the most effective interventions for preventing and managing non-communicable diseases such as cardiovascular disease, diabetes, obesity, and mental health disorders. By addressing the identified barriers and implementing structured, evidence-based approaches to physical activity promotion, primary healthcare systems can play a crucial role in fostering healthier populations and reducing the burden of lifestyle-related diseases. Future efforts should focus on developing sustainable, practical solutions that empower physicians to confidently integrate physical activity counseling into routine clinical practice, ultimately leading to improved health outcomes for patients and communities.

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CONFLICT OF INTEREST

The Authors declare no conflict of interest.

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A – Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis, D – Writing the article, E – Critical review, F – Final approval of the article

RECEIVED: 15.11.2024
ACCEPTED: 20.02.2025