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PROVISION OF PHYSICAL ACTIVITY IN PRIMARY HEALTH CARE SERVICES: A SCOPING REVIEW WITH META-AGGREGATION

OFERTA DE ATIVIDADE FÍSICA NOS SERVIÇOS DE ATENÇÃO PRIMÁRIA À SAÚDE: UMA REVISÃO DE ESCOPO COM META-AGREGAÇÃO

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ABSTRACT

Promoting physical activity (PA) in Primary Health Care (PHC) is essential for preventing and controlling chronic non-communicable diseases. However, its implementation still faces structural barriers, regional inequalities, and insufficient professional training. This study mapped evidence on the promotion of PA in PHC, identifying weaknesses and strengths. A scoping review was conducted according to PRISMA-ScR in the Web of Science, Scopus, LILACS, MEDLINE, and CAPES Catalog databases. After screening, 20 studies were included. The peer-reviewed articles (n = 15) were analyzed using IRaMuTeQ. The most frequent terms were "Physical activity," "User," "PHC," and "Counseling." Similarity analysis identified PA as the conceptual core, related to individual, institutional, and methodological factors. Six thematic classes emerged: PA provision in PHC; professional competence; assessment instruments; regional inequality; implementation strategies; and infrastructure/access. The findings revealed insufficient infrastructure, territorial disparities, and gaps in professional training, in addition to potential areas such as the Health Academy Program, counseling, and interdisciplinary actions. In short, promoting primary health care depends on investments in infrastructure, professional qualification, and strategies adapted to the territory to ensure equity and sustainability within the Brazilian Unified Health System (SUS).

Keywords: Health Promotion; Physical Activity; Scoping Review; Health Academy Program; Health Inequalities.

RESUMO

A promoção da atividade física (AF) na Atenção Primária à Saúde (APS) é essencial para prevenir e controlar doenças crônicas não transmissíveis. Contudo, sua implementação ainda enfrenta barreiras estruturais, desigualdades regionais e insuficiente

capacitação profissional. Este estudo mapeou evidências sobre a promoção da AF na APS, identificando fragilidades e potencialidades. Realizou-se uma revisão de escopo conforme PRISMA-ScR nas bases Web of Science, Scopus, LILACS, MEDLINE e Catálogo CAPES. Após triagem, 20 estudos foram incluídos. Os artigos revisados por pares (n = 15) foram analisados no IRaMuTeQ. Os termos mais frequentes foram “Atividade física”, “Usuário”, “APS” e “Aconselhamento”. A análise de similitude identificou a AF como núcleo conceitual, relacionada a fatores individuais, institucionais e metodológicos. Emergiram seis classes temáticas: oferta de AF na APS; competência profissional; instrumentos de avaliação; desigualdade regional; estratégias de implementação; e infraestrutura/acesso. Os achados revelaram infraestrutura insuficiente, disparidades territoriais e lacunas na formação profissional, além de potencialidades como o Programa Academia da Saúde, aconselhamento e ações interdisciplinares. Em síntese, a promoção da AF na APS depende de investimentos em infraestrutura, qualificação profissional e estratégias adaptadas ao território para garantir equidade e sustentabilidade no SUS.
Palavras-chave: Promoção da Saúde; Atividade Física; Revisão de Escopo; Programa Academia de Saúde; Desigualdades em Saúde.

1. INTRODUCTION

Regular engagement in physical activity (PA) constitutes a key determinant of health promotion and the prevention of noncommunicable chronic diseases (NCDs), including cardiovascular diseases, type 2 diabetes mellitus, obesity, and certain types of cancer, which together account for approximately 75% of global mortality (Bull *et al.*, 2020; WHO, 2025). In Brazil, data from the National Health Survey indicate that 40.3% of the adult population

does not meet recommended PA levels (IBGE, 2021), highlighting a substantial challenge for public health and for the sustainability of the health care system.

Within this context, Primary Health Care (PHC) plays a strategic role as the main entry point to the Unified Health System (Sistema Único de Saúde—SUS) and as a coordinating element of health care networks. PHC holds significant potential to promote healthy lifestyles and reduce social health inequalities. By integrating prevention, health promotion, and comprehensive care, PHC provides a unique opportunity to incorporate PA actions in a continuous manner and tailored to the needs of the populations served, thereby fostering equitable access to body practices and mitigating the effects of sedentary behavior (Mrejen *et al.*, 2021).

The promotion of PA in PHC has been addressed through national public policies and programs, notably the Health Academy Program (Programa Academia da Saúde—PAS) and the City Academy Program (Programa Academia da Cidade—PAC), which structure community-based spaces for participation and encourage regular engagement in physical exercise. Despite these advances, the literature identifies persistent challenges, including fragmentation between Basic Health Units (Unidades Básicas de Saúde—UBS) and PA centers, insufficient interinstitutional coordination, the absence of standardized referral protocols, and limitations in the continuity of actions (Silva *et al.*, 2020; Souza-Neto *et al.*, 2020). Furthermore, regional disparities reflect inequalities in the provision of and access to PA, associated with the unequal distribution of resources, infrastructure, and sociocultural determinants, particularly in areas characterized by greater socioeconomic vulnerability (Tandon *et al.*, 2021; Bantham *et al.*, 2021; Kellstedt *et al.*, 2021).

The literature underscores the need for integrated, multidimensional, and context-sensitive approaches that consider social, cultural, and environmental factors, as well as the training, qualification, and motivation of PHC professionals (Lion *et al.*, 2018; Manta *et al.*, 2022; Leese; Abraham; Smith, 2023). Moreover, the incorporation of digital technologies and standardized assessment instruments has emerged as a promising strategy for continuous monitoring, reliable data collection, and feedback to public health policies (De Santis *et al.*, 2022; Alley *et al.*, 2024).

In light of this scenario, there is a clear need to systematize and synthesize the scientific production regarding the provision of PA in PHC. This scoping review aims to consolidate evidence on the implementation of physical activity initiatives within PHC services, identifying conditioning factors, knowledge gaps, and successful practices. By doing so, it seeks to inform planning, management, and public policy formulation strategies aimed at health promotion and the encouragement of regular physical activity.

2. METHODS

Study Design

This is a scoping review conducted in accordance with the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines (Tricco *et al.*, 2018; Peters *et al.*, 2020).

Search Strategy

The review was guided by the research question: “What factors influence the quality of the provision of physical activity in Primary Health Care (PHC)?” This question was structured using the PICo

framework (P – Population; I – Interest; C – Context), as presented in Table 1.

Table 1. PICo elements.

Component	Description
Population	Quality of service provision
Interest	Physical activity
Context	Primary Health Care

Source: Prepared by the authors.

The literature search was conducted between March and May 2024 in the electronic databases Web of Science, Scopus, LILACS, and MEDLINE, the latter two accessed through the Virtual Health Library (VHL). In addition, manual searches were performed in the Catalog of Theses and Dissertations of the Coordination for the Improvement of Higher Education Personnel (CAPES).

The search process was carried out in two complementary stages. In the first stage, a search was performed in the CAPES portal using exclusively the descriptor “Programa Academia da Saúde,” without applying filters related to time frame, document type, or language.

In the second stage, aimed at retrieving articles from the databases, different combinations of descriptors were used, including: “Physical Exercise,” “Physical Activity,” “Primary Health Care,” “Primary Care,” “Basic Health Care,” “Health Services Administration,” “Health Services Management,” “Professional Competence,” “Environment,”

“Infrastructure,” “Patient Participation,” “Patients,” and related terms (Table 2).

To refine the search, the Boolean operators “AND,” “OR,” and “NOT” were applied, along with the following filters: original articles, published in English, Portuguese, or Spanish, within the last five years, and available in open access.

The retrieved records were subsequently exported in RIS format, preserving title, authorship, abstract, and keywords; and imported into the Rayyan platform (Ouzzani.*et al.*, 2016) to support screening, duplicate removal, and eligibility assessment based on predefined inclusion and exclusion criteria.

Table 2. Search strategy for articles in the databases.

Database	**Search strategy**	
MEDLINE (BVS)	Service management	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (administração de serviços de saúde) OR (gerência de serviços de saúde)

		OR (gerência dos serviços de saúde) OR (gestão de serviços de saúde) OR (gestão dos serviços de saúde) AND (fulltext:("1" OR "1") AND db:("MEDLINE") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
	Professional competence	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (competência profissional) AND (fulltext:("1" OR "1") AND db:("MEDLINE") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
	Environment	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR

		(primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (ambiente) OR (ambientes) AND (fulltext:("1" OR "1") AND db:("MEDLINE") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
	Infrastructure	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (infraestrutura) AND (fulltext:("1" OR "1") AND db:("MEDLINE") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
	User participation	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR

		(primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (participação do paciente) OR (pacientes) OR (clientes) OR (paciente) AND (fulltext:("1" OR "1") AND db:("MEDLINE") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
LILACS (BVS)	Service management	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (administração de serviços de saúde) OR (gerência de serviços de saúde) OR (gerência dos serviços de saúde) OR (gestão de serviços de saúde) OR (gestão dos serviços de saúde) AND (fulltext:("1" OR "1") AND db:("LILACS") AND la:("pt" OR "en" OR "es")) AND (year_cluster:[2019 TO 2023])
	Professional competence	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados

		primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (competência profissional) AND (fulltext:("1" OR "1") AND db:("LILACS") AND la:("pt" OR "en" OR "es")) AND (year_cluster:[2019 TO 2023])
	Environment	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (ambiente) OR (ambientes) AND (fulltext:("1" OR "1") AND db:("LILACS") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
	Infrastructure	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados

		primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (infraestrutura) AND (fulltext:("1" OR "1") AND db:("LILACS") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
	User participation	(exercício físico) OR (atividade física) OR (atividades físicas) AND (atenção primária à saúde) OR (atendimento básico) OR (atendimento primário) OR (atendimento primário de saúde) OR (atenção básica) OR (atenção básica à saúde) OR (atenção básica de saúde) OR (atenção primária) OR (atenção primária de saúde) OR (atenção primária em saúde) OR (cuidado de saúde primário) OR (cuidado primário de saúde) OR (cuidados de saúde primários) OR (cuidados primários) OR (cuidados primários à saúde) OR (cuidados primários de saúde) OR (primeiro nível de assistência) OR (primeiro nível de atendimento) OR (primeiro nível de atenção) OR (primeiro nível de atenção à saúde) OR (primeiro nível de cuidado) OR (primeiro nível de cuidados) AND (participação do paciente) OR (pacientes) OR (clientes) OR (paciente) AND (fulltext:("1" OR "1" OR "1" OR "1") AND db:("LILACS") AND la:("en" OR "pt" OR "es")) AND (year_cluster:[2019 TO 2023])
Web of Science	Service management	Physical exercise (Keyword Plus ®) or Physical activity (Keyword Plus ®) or Physical activities (Keyword Plus ®) and Primary Health Care (Keyword Plus ®) or Basic Service (Keyword Plus ®) or Basic Care (Keyword Plus ®) or Basic Health Care (Keyword Plus ®) or Primary attention (Keyword Plus ®) or Primary Care (Keyword Plus ®) or First Level of Assistance (Keyword Plus ®) or First Level of Service (Keyword Plus ®) or First Level of Care (Keyword Plus ®) or First Level of Health Care

		(Keyword Plus ®) and Health Services Administration (Keyword Plus ®) or Health Services Management (Keyword Plus ®) not review (Document Types) and Open Access and 2023 or 2022 or 2021 or 2020 or 2019 (Publication Years) and Article (Document Types) and English or Spanish or Portuguese (Languages) and Sport Sciences or Health Care Sciences Services or Public Administration (Research Areas) and All Open Access (Open Access)
	Professional competence	Physical exercise (Keyword Plus ®) or Physical activity (Keyword Plus ®) or Physical activities (Keyword Plus ®) and Primary Health Care (Keyword Plus ®) or Basic Service (Keyword Plus ®) or Basic Care (Keyword Plus ®) or Basic Health Care (Keyword Plus ®) or Primary attention (Keyword Plus ®) or Primary Care (Keyword Plus ®) or First Level of Assistance (Keyword Plus ®) or First Level of Service (Keyword Plus ®) or First Level of Care (Keyword Plus ®) or First Level of Health Care (Keyword Plus ®) and Professional competence (Keyword Plus ®) not Review (Document Type) and Open Access and 2023 or 2022 or 2021 or 2020 or 2019 (Publication Years) and Article (Document Types) and English or Spanish or Portuguese (Languages) and Sport Sciences or Health Care Sciences Services or Public Administration (Research Areas) and All Open Access (Open Access)
	Environment	Physical exercise (Keyword Plus ®) or Physical activity (Keyword Plus ®) or Physical activities (Keyword Plus ®) and Primary Health Care (Keyword Plus ®) or Basic Service (Keyword Plus ®) or Basic Care (Keyword Plus ®) or Basic Health Care (Keyword Plus ®) or Primary attention (Keyword Plus ®) or Primary Care (Keyword Plus ®) or First Level of Assistance (Keyword Plus ®) or First Level of Service (Keyword Plus ®) or First Level of Care (Keyword Plus ®) or First Level of Health Care

		(Keyword Plus ®) and Environment (Keyword Plus ®) or Environments (Keyword Plus ®) not Review (Document Type) and Open Access and 2023 or 2022 or 2021 or 2020 or 2019 (Publication Years) and Article (Document Types) and English or Spanish or Portuguese (Languages) and Sport Sciences or Health Care Sciences Services or Public Administration (Research Areas) and All Open Access (Open Access)
	Infrastructure	Physical exercise (Keyword Plus ®) or Physical activity (Keyword Plus ®) or Physical activities (Keyword Plus ®) and Primary Health Care (Keyword Plus ®) or Basic Service (Keyword Plus ®) or Basic Care (Keyword Plus ®) or Basic Health Care (Keyword Plus ®) or Primary attention (Keyword Plus ®) or Primary Care (Keyword Plus ®) or First Level of Assistance (Keyword Plus ®) or First Level of Service (Keyword Plus ®) or First Level of Care (Keyword Plus ®) or First Level of Health Care (Keyword Plus ®) and Infrastructure (Keyword Plus ®) not Review (Document Type) and Open Access and 2023 or 2022 or 2021 or 2020 or 2019 (Publication Years) and Article (Document Types) and English or Spanish or Portuguese (Languages) and Sport Sciences or Health Care Sciences Services or Public Administration (Research Areas) and All Open Access (Open Access)
	User participation	Physical exercise (Keyword Plus ®) or Physical activity (Keyword Plus ®) or Physical activities (Keyword Plus ®) and Primary Health Care (Keyword Plus ®) or Basic Service (Keyword Plus ®) or Basic Care (Keyword Plus ®) or Basic Health Care (Keyword Plus ®) or Primary attention (Keyword Plus ®) or Primary Care (Keyword Plus ®) or First Level of Assistance (Keyword Plus ®) or First Level of Service (Keyword Plus ®) or First Level of Care (Keyword Plus ®) or First Level of Health Care (Keyword Plus ®) and Patient Participation

		(Keyword Plus ®) or Patients (Keyword Plus ®) or Customers (Keyword Plus ®) or Patient (Keyword Plus ®) not Review (Document Type) and Open Access and 2023 or 2022 or 2021 or 2020 or 2019 (Publication Years) and Article (Document Types) and English or Spanish or Portuguese (Languages) and Sport Sciences or Health Care Sciences Services or Public Administration (Research Areas) and All Open Access (Open Access)
SCOPUS	Service management	(TITLE-ABS-KEY (physical AND exercise) OR TITLE-ABS-KEY (physical AND activity) OR TITLE-ABS-KEY (physical AND activities) AND TITLE-ABS-KEY (primary AND health AND care) OR TITLE-ABS-KEY (basic AND service) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (basic AND care) OR TITLE-ABS-KEY (basic AND health AND care) OR TITLE-ABS-KEY (primary AND attention) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (first AND level AND of AND assistance) OR TITLE-ABS-KEY (first AND level AND of AND service) OR TITLE-ABS-KEY (first AND level AND of AND care) OR TITLE-ABS-KEY (first AND level AND of AND health AND care) AND TITLE-ABS-KEY (health AND services AND administration) OR TITLE-ABS-KEY (health AND services AND management)) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Spanish") OR LIMIT-TO (LANGUAGE , "Portuguese")) AND (LIMIT-TO (OA , "all"))
	Professional competence	(TITLE-ABS-KEY (physical AND exercise) OR TITLE-ABS-KEY (physical AND activity) OR TITLE-ABS-KEY (physical AND activities) AND TITLE-ABS-KEY (primary AND health AND care) OR TITLE-ABS-KEY (basic AND service) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (basic AND care) OR TITLE-ABS-KEY (basic AND health AND care) OR

		TITLE-ABS-KEY (primary AND attention) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (first AND level AND of AND assistance) OR TITLE-ABS-KEY (first AND level AND of AND service) OR TITLE-ABS-KEY (first AND level AND of AND care) OR TITLE-ABS-KEY (first AND level AND of AND health AND care) AND TITLE-ABS-KEY (professional AND competence)) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Spanish") OR LIMIT-TO (LANGUAGE , "Portuguese")) AND (LIMIT-TO (OA , "all"))
	Environment	(TITLE-ABS-KEY (physical AND exercise) OR TITLE-ABS-KEY (physical AND activity) OR TITLE-ABS-KEY (physical AND activities) AND TITLE-ABS-KEY (primary AND health AND care) OR TITLE-ABS-KEY (basic AND service) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (basic AND care) OR TITLE-ABS-KEY (basic AND health AND care) OR TITLE-ABS-KEY (primary AND attention) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (first AND level AND of AND assistance) OR TITLE-ABS-KEY (first AND level AND of AND service) OR TITLE-ABS-KEY (first AND level AND of AND care) OR TITLE-ABS-KEY (first AND level AND of AND health AND care) AND TITLE-ABS-KEY (environment) OR TITLE-ABS-KEY (environments)) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Spanish") OR LIMIT-TO (LANGUAGE , "Portuguese")) AND (LIMIT-TO (OA , "all"))
	Infrastructure	(TITLE-ABS-KEY (physical AND exercise) OR TITLE-ABS-KEY (physical AND activity) OR TITLE-ABS-KEY (physical AND activities) AND TITLE-ABS-KEY (primary AND health AND care) OR TITLE-ABS-KEY (basic AND service)

		OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (basic AND care) OR TITLE-ABS-KEY (basic AND health AND care) OR TITLE-ABS-KEY (primary AND attention) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (first AND level AND of AND assistance) OR TITLE-ABS-KEY (first AND level AND of AND service) OR TITLE-ABS-KEY (first AND level AND of AND care) OR TITLE-ABS-KEY (first AND level AND of AND health AND care) AND TITLE-ABS-KEY (infrastructure)) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Spanish") OR LIMIT-TO (LANGUAGE , "Portuguese")) AND (LIMIT-TO (OA , "all"))
	User participation	(TITLE-ABS-KEY (physical AND exercise) OR TITLE-ABS-KEY (physical AND activity) OR TITLE-ABS-KEY (physical AND activities) AND TITLE-ABS-KEY (primary AND health AND care) OR TITLE-ABS-KEY (basic AND service) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (basic AND care) OR TITLE-ABS-KEY (basic AND health AND care) OR TITLE-ABS-KEY (primary AND attention) OR TITLE-ABS-KEY (primary AND care) OR TITLE-ABS-KEY (first AND level AND of AND assistance) OR TITLE-ABS-KEY (first AND level AND of AND service) OR TITLE-ABS-KEY (first AND level AND of AND care) OR TITLE-ABS-KEY (first AND level AND of AND health AND care) AND TITLE-ABS-KEY (patient AND participation) OR TITLE-ABS-KEY (patients) OR TITLE-ABS-KEY (customers) OR TITLE-ABS-KEY (patient) AND NOT TITLE (review)) AND PUBYEAR > 2018 AND PUBYEAR < 2024 AND (LIMIT-TO (LANGUAGE , "English") OR LIMIT-TO (LANGUAGE , "Spanish") OR LIMIT-TO (LANGUAGE , "Portuguese")) AND (LIMIT-TO (OA , "all")) AND (LIMIT-TO (DOCTYPE , "ar"))

Source: Prepared by the authors.

Eligibility Criteria

The inclusion criteria were: open-access studies, available in full text, and aligned with the objectives of the present review. The following were excluded: duplicate studies, review articles, studies with incomplete results, studies not addressing the proposed topic, and those not available in full text.

Study Selection

Study selection was performed by two independent reviewers (P.E.S.C. and V.D.S.S.), both with prior experience in literature reviews and previously trained and calibrated for this stage. In the initial screening, titles and abstracts were assessed according to the predefined eligibility criteria. Articles considered potentially relevant were subsequently subjected to full-text reading, a step deemed essential to confirm eligibility based on the established inclusion and exclusion criteria.

Inter-rater reliability was assessed using Cohen's Kappa coefficient, a statistical measure that evaluates agreement beyond chance (Cohen, 1960). The obtained value was $\kappa = 0.86$, which, according to the classification proposed by McHugh (Mchugh, 2012), corresponds to strong agreement.

Data Extraction and Analysis

Data extraction was performed by one of the reviewers (P.E.S.C.) using a previously established checklist. The collected and

synthesized information included: (1) author and year of publication; (2) study location; (3) study design; (4) objectives; and (5) outcomes.

Data meta-aggregation was conducted using the free software Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires (IRaMuTeQ), which enabled analysis of the textual corpus derived from the descriptive synthesis of the included studies. IRaMuTeQ examines textual structure and organization, facilitating the identification of relationships among the most frequent terms in the corpus (Camargo; Justo, 2013).

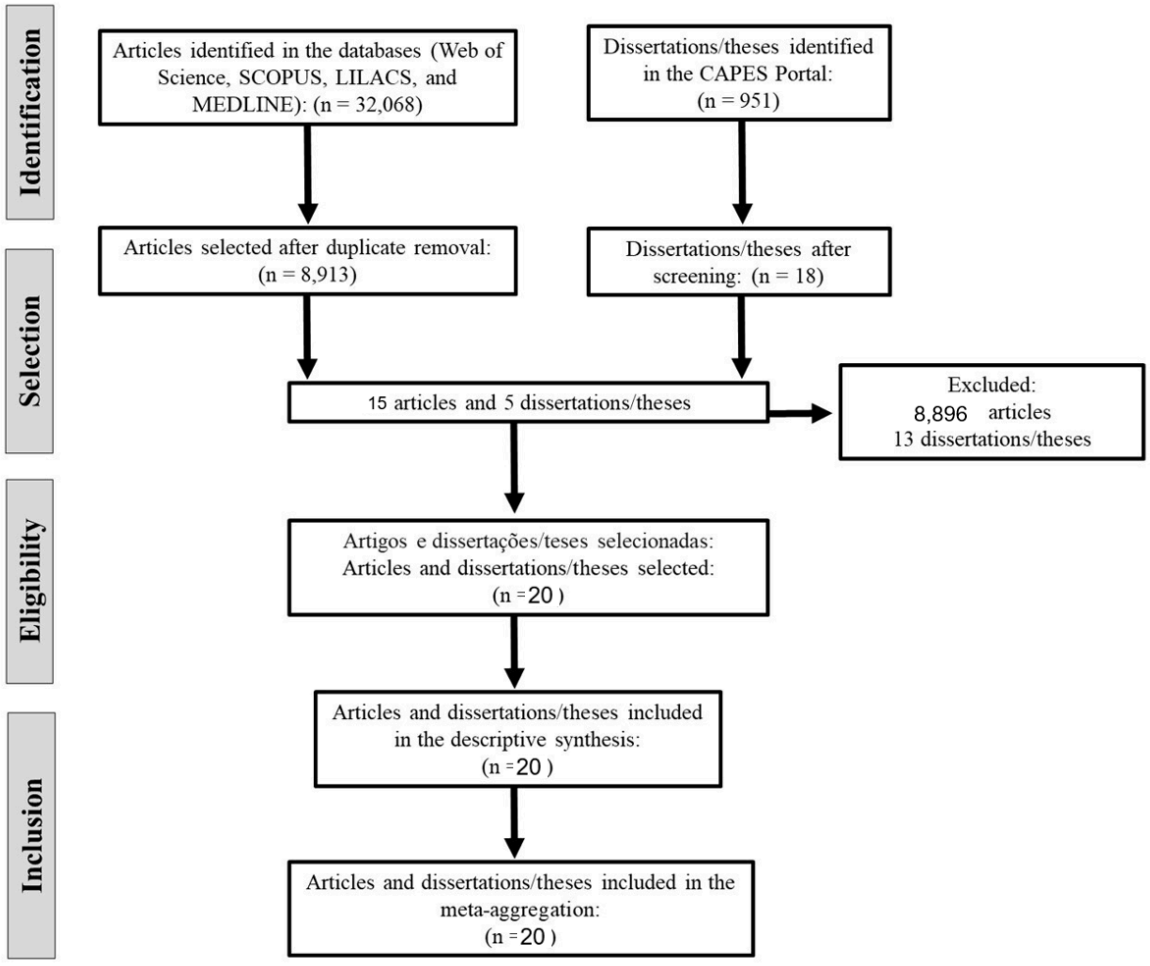
Four textual analyses were performed: (1) Classical lexical analyses to verify statistics regarding the number of text segments (TS), word occurrences, and forms; (2) Descending Hierarchical Classification (DHC) to generate a dendrogram representing the emerging classes. The higher the χ^2 value, the stronger the association between the word and the class; words with $\chi^2 < 3.80$ ($p < 0.05$) were disregarded; (3) Word Cloud analysis to group and graphically organize words according to their relevance, with larger words representing higher frequency; and (4) Similarity Analysis to identify co-occurrences among words, indicating the degree of connectivity between terms within the corpus.

3. RESULTS

Figure 1 presents the flowchart of the identification and selection process of the studies included in this review. Initially, 32,068 articles were identified in the electronic databases Web of Science, Scopus, LILACS, and MEDLINE, in addition to 951 theses and dissertations retrieved from the CAPES portal.

After the removal of duplicates, 8,913 articles remained for the screening stage. Regarding theses and dissertations, 18 studies met the preliminary selection criteria. Subsequently, a detailed eligibility assessment was conducted, resulting in the inclusion of 15 articles and 5 theses/dissertations, totaling 20 studies considered eligible for this review.

Figure 1. Flowchart of the selection process of studies included in the review.



Source: Prepared by the authors.

This review analyzed a total of 20 studies, of which b15 were scientific articles (75.00%) and 5 were dissertations or theses (25.00%). Scientific production was predominantly concentrated in Brazil.

Regarding dissertations and theses, all identified works originated from graduate programs located in the South and Southeast regions of the country (Tables 3 and 4).

Concerning methodological designs, there was a predominance of cross-sectional studies and qualitative research.

Table 3. Articles identified in the bibliographic search.

Author (Year)	Journal	Country	Title	Thematic axis
Mello *et al.* (2022)	*International Journal Of Environmental Research And Public Health.*	Brazil.	*Exposure to public open spaces and leisure-time physical activity: an analysis of adults in primary health care in Brazil.*	Environment
Souza *et al.* (2022)	*Sao Paulo Medical Journal.*	Brazil.	*Barriers to physical activity among adults in primary healthcare units in the national health system: a cross-sectional study in Brazil.*	Environment
Papini *et al.* (2021)	Ciência & Saúde Coletiva.	Brazil.	*Cost-analysis and cost-effectiveness of physical activity interventions in brazilian*	Professional competence

			primary health care: a randomised feasibility study.	
Santos *et al*. (2021)	*International Journal Of Environmental Research And Public Health.*	Brazil.	*Physical activity counseling among adults in primary health care centers in Brazil*.	User participation
Moraes *et al*. (2021)	*Journal Of Physical Education.*	Brazil.	*Counseling strategies for physical activity used by the expanded nucleus of family health in Florianópolis*	Professional competence
Souza-Neto *et al*. (2021)	Ciência & Saúde Coletiva.	Brazil.	*Associated factors with physical activity counseling among brazilian family health strategy workers*	Professional competence
Fernandes; Ferreira Neto (2021)	Interface (Botucatu, *Online*).	Brazil.	Práticas corporais/atividades físicas no programa academia da cidade: cuidados em saúde e discursos de usuários.	User participation

Moura *et al.* (2020)	Arquivos de Ciências da Saúde da UNIPAR.	Brazil.	Academias ao ar livre: percepções dos usuários e relação com o serviço de saúde	Professional competence / Infrastructure
Lucetti *et al.* (2020)	*ABCS Health Sciences.*	Brazil.	*Users' perception of the community centers for physical activity from two cities in Ceará, Brazil*	Infraestrutura
Lim *et al.* (2020)	*BMC Public Health.*	Singapore.	*Correlates, facilitators and barriers of physical activity among primary care patients with prediabetes in Singapore - a mixed methods approach.*	Environment
Polo *et al.* (2020a)	Motriz (Online).	Brazil.	*Effectiveness of exercise and health education interventions in brazilian primary health care*	User participation
Polo *et al.* (2020b)	Movimento (Porto Alegre).	Brazil.	Antecedentes motivacionais para a prática de atividade física na	Environment

			atenção primária à saúde.	
Seus *et al.* (2019)	Epidemiologia e Serviços de Saúde.	Brazil.	Núcleo de apoio à saúde da família: promoção da saúde, atividade física e doenças crônicas no Brasil - Inquérito Nacional PMAQ 2013	Service management
Westland *et al.* (2019)	*Plos One.*	Netherlands.	*Patients' experiences with a behaviour change intervention to enhance physical activity in primary care: a mixed methods study.*	Environment
Caram *et al.* (2021)	Demetra (Rio de Janeiro).	Brazil.	Redução da desigualdade de acesso às ações de promoção da saúde na Atenção Primária brasileira: programa academia da saúde	User participation

Source: Prepared by the authors.

Table 4. Dissertations and theses identified in the CAPES database.

Author (Year)	Graduate Program / Institution	Title	Thematic axis
Oliveira (2023)	Programa de Pós-Graduação em Ciências do Movimento e Reabilitação / UFSM.	Hábitos de saúde, nível de atividade física, aspectos psicossociais e satisfação de usuários do Programa academia da saúde.	Infrastructure
Sokoloski (2023)	Programa de Pós-Graduação em Ensino Na Saúde / UFRGS.	Qualificação da gestão estadual do programa academia da Saúde no Rio Grande do Sul.	Service management
Campos (2021)	Programa de Pós-Graduação em Gestão de Serviços de Saúde / UFMG.	Análise do Comportamento dos indicadores da Política Estadual de Promoção da Saúde (POEPS-MG) em Minas Gerais no período de 2016 a 2019.	Service management
Coutinho (2018)	Mestrado Profissional de Promoção de Saúde e Prevenção da Violência / UFMG.	A Relação entre Programa de Saúde da Família e o Programa Academia da Cidade de Belo Horizonte.	Service management
Andrade (2017)	Mestrado Profissional em Avaliação / Faculdade Cesgranrio.	Avaliação da qualidade do instrumento de avaliação para monitoramento de gestão do programa academia da saúde.	Service management

Source: Prepared by the authors.

The findings of this review, presented in Tables 5 and 7, highlight the main challenges in promoting physical activity (PA) within PHC, organized into five dimensions: management, professional competence, infrastructure, user participation, and physical environment.

In the domain of service management, weaknesses were observed in monitoring and evaluation mechanisms, particularly the scarcity of consistent data to track the performance of PA-related actions, as reported by Andrade (2017). However, municipalities with greater coverage of the Family Health Strategy demonstrated significantly better performance (25.4%) in achieving PA-related targets, as identified by Campos (2021). This finding suggests that integration between actions and services is crucial for the effectiveness of interventions.

Regarding professional competence, gaps were identified in both training and the implementation of PA counseling strategies. Although 86% of NASF-APS professionals reported using the 5As model, only 38% applied it comprehensively, with frequent shortcomings in the follow-up stage, as highlighted by Moraes *et al.* (2021). Additionally, variation across professional categories was observed: 68% of nurses reported providing regular counseling, whereas only 32% of community health workers adopted this practice (Souza-Neto; Florindo; Costa, 2021). These findings underscore the need for continuous training tailored to the specific roles and competencies of each professional category.

The analysis of infrastructure and the physical environment revealed significant barriers, including damaged equipment in 61% of PA centers and lack of time cited as one of the main obstacles to

adherence (Lucetti *et al.*, 2020). Conversely, the adequate use of public spaces was associated with an increase of up to 79% in walking practice (Mello; Lopes; Fermino, 2022), reinforcing the importance of investing in accessible and well-structured infrastructure.

User participation emerged as a critical dimension, with low levels of involvement in the planning stages of actions, reported in only 18% of cases (Caram *et al.*, 2021). Furthermore, inequalities in access to counseling were identified, with higher prevalence among older adults and individuals with obesity (43%) compared to other groups (Santos *et al.*, 2021). These findings highlight the need for more equitable and population-sensitive strategies.

Overall, the analyzed studies indicate that barriers to PA promotion in PHC encompass structural, professional, environmental, and social factors. Overcoming these challenges requires coordinated and integrated actions, including strengthened management, continuous workforce qualification, infrastructure improvements, and effective user engagement—key elements for enhancing public health promotion policies at this level of care.

The findings presented in Tables 6 and 8 reveal methodological diversity in the instruments used to assess the quality of health care and PA counseling in PHC. The reviewed studies employed interviews, structured questionnaires, theoretical models (such as the Transtheoretical Model), psychosocial approaches, mixed methods, and document analysis to evaluate domains including users, professionals, management, infrastructure, and public policies.

Table 5. Descriptive synthesis of the articles included in the review.

Reference	Study type	Objective(s)	Profile / Population / Sample	Main results and outcomes
Mello *et al.* (2022)	Quantitative, observational, cross-sectional	To analyze the associations between different exposures to public open spaces (presence, distance, use, and frequency of use) and leisure-time physical activity (walking, running, sports) among adults in primary health care in Brazil.	615 users from 15 Basic Health Units in São José dos Pinhais, Paraná, Brazil.	• The presence and use of public open spaces (POS) more than twice a week increased the likelihood of walking (79%) and engaging in moderate-to-vigorous leisure-time physical activity (85%). • Greater use of POS (≥2 times/week) doubled the probability of walking and quadrupled the probability of moderate-

					to-vigorous physical activity. • Only the use of POS showed a positive association with walking and moderate-to-vigorous physical activity. • Presence and proximity of POS were not associated with most leisure-time physical activity outcomes, possibly due to intrapersonal barriers such as lack of knowledge about available activities, lack of motivation and time, and higher prevalence

				of chronic diseases. • Implications: Policymakers should encourage physical activity programs in Basic Health Units, and health professionals should guide patients to participate in community physical activity programs in POS.
Souza et al. (2022)	Quantitative, observational, cross-sectional	To analyze associations between sociodemographic characteristics, perceived barriers to leisure-time physical activity, health conditions, and physical activity counseling among users	779 adults (70% women) from the urban area of São José dos Pinhais, Paraná, Brazil.	• 89% reported at least one barrier to leisure-time physical activity, with an average of 2.70 barriers per person. • Most common barriers: “feeling too

		of primary health care units in the Brazilian Unified Health System (SUS).		tired" and "lack of time," consistent with previous studies. • Physical inactivity increased with the number of perceived barriers. • The sample represented a population vulnerable to physical inactivity (women, low-income individuals, people with chronic diseases, and those dependent on continuous medication). • Results suggest that counseling should address all physical

				activity domains (leisure, transport, occupational, and household) to reduce sedentary time and increase awareness.
Papini *et al*. (2021)	Multi-arm parallel feasibility randomized trial	To verify the feasibility of a brief physical activity counseling intervention and compare its economic cost and cost-effectiveness with a supervised physical exercise intervention in primary health care over one year.	61 participants from four Basic Health Units in Rio Claro, São Paulo, Brazil.	• Majority were women aged 40–60 years, with low educational level and obesity (BMI ≥30 kg/m²). • Low baseline levels of leisure-time physical activity across all groups. • The brief counseling intervention (BCI) was 50% less expensive than the supervised physical exercise

					intervention (SPEI), with small differences in cost-effectiveness. • Implementation of interventions such as BCI may result in significant public health expenditure savings, particularly in the treatment of chronic diseases such as diabetes and hypertension. • BCI appears more feasible and economical within SUS, contributing to reduced chronic disease treatment costs.

Santos *et al*. (2021)	Quantitative	To describe the prevalence and analyze factors associated with physical activity (PA) counseling among adults in Primary Health Care centers in Brazil.	779 participants (544 women and 235 men) from Basic Health Units in São José dos Pinhais, Paraná, Brazil.	• 43% of participants reported receiving physical activity counseling. • Counseling was more frequent among middle-aged and older adults, individuals with lower education levels, married participants, those with obesity, users of medication for chronic diseases, and those already engaged in leisure-time walking. • Participants from São José dos Pinhais presented worse health conditions

				compared with adults from Curitiba (e.g., 54% overweight, 11% smokers, 21% hypertension, 7% diabetes).
Moraes *et al*. (2021)	Observational, cross-sectional	To estimate the prevalence of physical activity counseling strategies used by professionals from the Expanded Family Health and Primary Health Care Center (NASF-APS) of Florianópolis, according to the 5As model.	Health professionals (public servants and residents) from NASF-APS in Florianópolis; total of 67 professionals and 47 residents.	• High prevalence of reported physical activity counseling among NASF-APS professionals. • The 5As model was the main framework adopted, emphasizing: Ask (inquire about PA practice); Assess (evaluate needs and benefits); Advise (recommend behavioral changes); Assist

					(support goal setting); Arrange (follow-up), which was the least cited strategy. • Counseling based on the 5As supports a more structured and effective approach to behavior change. • Strong incorporation of public policies for PA promotion and prevention of chronic noncommunicable diseases in Primary Health Care in Florianópolis. • Gaps remain in the systematic use of the

				5As model, requiring improvement.
Souza-Neto; Florindo; Costa (2021)	Cross-sectional	To describe the prevalence of physical activity counseling and associated factors among workers of the Family Health Strategy.	Random sample of 591 health workers from Family Health Strategy teams in João Pessoa, Paraíba, Brazil, including 47 general practitioners, 69 nurses, and 55 nursing assistants.	• More than half of professionals did not regularly provide physical activity counseling. • Professionals with lower educational levels (community health agents and nursing assistants) showed lower prevalence of counseling. • Lack of a clear definition of "counseling" may have influenced results. • Social desirability bias may have

				affected responses. • No statistically significant association was found between professionals' own physical activity levels and counseling practices. • Continuing education and promotion of physical activity among professionals are essential to improve counseling practices.
Fernandes; Neto (2021)	Qualitative	To investigate body practices/physical activities and the discourses produced by users of the Academia da Cidade Program (ACP) in Belo	37 female users from two ACP units in Belo Horizonte, divided into subgroups according to health risk (A1/A2: without restrictions; B1/B2: with restrictions).	• The ACP encouraged lifestyle changes and access to other health practices, with users demonstrating awareness of public

		Horizonte, Minas Gerais, Brazil, and their articulation with comprehensive care in Primary Health Care.		health issues. • A convergence was observed between hegemonic physical activity and body practices proposed by users, suggesting an integrated care approach. • The program requires changes in work processes, professional training, and greater user protagonism. • Lack of resources compromised continuity of comprehensive care, resulting in professional work

				overload and reduced service quality.
Moura *et al*. (2020)	Cross-sectional	To characterize the implementation process, utilization, and referral of the population to outdoor gyms (Academias ao Ar Livre – AAL) by Primary Health Care.	308 users aged ≥18 years, of both sexes, from outdoor gyms in Teresina, Piauí, Brazil.	• Predominance of female users in outdoor gyms. • Need for constant and qualified presence of Physical Education Professionals (PEP), given irregular attendance schedules of users. • Lack of trained professionals to assess, prescribe, and monitor exercises, affecting safety and effectiveness and constituting a barrier for new users.

					• Main barriers to physical activity: lack of time, financial resources, and adequate spaces. • Schedule incompatibility between health professionals and peak AAL usage times hinders effective implementation. • Limited dissemination and interaction between health professionals and AALs, resulting in underutilization. • Insufficient community involvement in implementation

				contributed to low adherence and use. • Low frequency of guidance and referral from Family Health Strategy professionals to AALs, compromising strategy effectiveness.
Lucetti *et al*. (2020)	Exploratory qualitative	To understand users' perceptions of community physical activity centers, emphasizing structure, functioning, and professional support in health promotion practices.	15 users from two Community Physical Activity Centers (PCAF) in southern Ceará, Brazil (10 from one municipality and 5 from another).	• Absence of qualified professionals in the PCAF, limiting exercise supervision and guidance. • Dissatisfaction with maintenance, physical structure, and equipment conditions. • Distance from users' homes was identified

					as a barrier to regular participation. • Need for professional guidance and improvements in infrastructure and equipment. • Community centers of the Health Academy Program (PAS) were positively highlighted due to the presence of professionals and better infrastructure. • Lack of articulation with Primary Health Care to integrate actions and optimize AAL and PCAF

				functioning. • Despite equipment-use difficulties, adherence to physical activity was not fully compromised. • Notable dissatisfaction with organization and functioning, requiring greater public administration support. • Investments in infrastructure, maintenance, and safety are necessary to improve quality and adherence.
Lim *et al.* (2020)	Mixed-method cross-sectional survey (quantitati	To assess correlates of meeting physical activity recommendations and	433 participants from 8 polyclinics; in-depth interviews conducted	• Two in three patients with prediabetes met World

	ve and qualitative)	explore facilitators and barriers among primary care patients with prediabetes in Singapore, using the socioecological model (SEM).	with 48 participants.	Health Organization physical activity recommendations, with higher prevalence among men. • Main barriers included osteoarthritis, sedentary behavior, lack of companionship, and inadequate infrastructure. • Key facilitators were support from family/friends and perceived health and well-being benefits. • Additional barriers included limiting medical conditions, lack of knowledge about

				appropriate exercises, lack of time, and inadequate exercise infrastructure.
Polo *et al.* (2020a)	Quasi-experimental	To examine the effectiveness of two different behavioral change interventions to improve Physical Activity (PA) and reduce Sedentary Behavior (SB) in a Primary Health Care setting.	86 users of the Brazilian Unified Health System (SUS) in Uberaba, Minas Gerais, Brazil; men and women aged 30 years or older.	• Significant improvement in leisure-time physical activity, with increases in light and moderate-to-vigorous intensities in both intervention groups. • Reduction in sedentary behavior: the combined intervention group (physical exercise + health education) showed a significant reduction in sedentary time after

					18 weeks of follow-up. • The combined intervention demonstrated more pronounced effects on reducing sedentary behavior and improving PA compared to health education alone; however, both groups improved their PA levels. • Both interventions were effective in enhancing PA levels and reducing sedentary behavior among participants. • Integrated programs combining

					exercise and health education were highlighted as particularly relevant, with brief counseling playing a key role in participant engagement. • The adoption of small, realistic goals was identified as a crucial strategy to improve adherence and motivation. • Although not statistically significant, a positive trend was observed in other PA domains (work, transportation, household activities) in both groups.

				• The study reinforces Primary Health Care as an important gateway for behavioral change and health promotion, with strong potential to positively influence physical activity habits and reduce sedentary behavior.
Polo *et al.* (2020b)	Cross-sectional	To investigate how the perception of affective antecedents and motivational regulations influences physical activity practice in the Saúde Ativa Uberaba Program.	77 SUS users from two Basic Health Units in Uberaba, Minas Gerais, Brazil (42 from BHU 1 and 35 from BHU 2).	• Frustration of autonomy and competence needs was observed, associated with the presence of extrinsic motivation. • Motivation was predominantly external, with adherence

					more related to rewards, punishments, and fears than to personal satisfaction or enjoyment. • Social impact: low educational level and income hindered fulfillment of basic needs, negatively affecting intrinsic motivation and self-determination for physical activity. • The absence of intrinsic motivation and lack of satisfaction with physical activity compromise long-term maintenance of

				healthy behavior, highlighting the need for interventions that promote autonomy and enjoyment in exercise practice.
Seus *et al.* (2019)	Cross-sectional	To describe reported health promotion actions directed at individuals with chronic noncommunicable diseases, the support of Physical Education Professionals (PEP), and the implementation of body practices and physical activity (PCAF) actions by Family Health Support Center (NASF)	Professionals and users involved in the PMAQ evaluation process, including participation from 41 federal teaching and research institutions (e.g., Fiocruz, UFBA, UFMG, UFPel, UFRGS, UFRN, UFPI), with 1,000 interviewers and supervisors across all Brazilian states.	• More than half of Primary Care teams reported support from NASF teams; however, the number of teams remained below recommended levels, particularly in small municipalities and those with medium to high HDI, with predominance in the Northeast region.

		teams, according to contextual municipal variables in Brazil.		• NASF presence was greater in areas with higher Family Health Strategy (FHS) coverage. • A significant increase in the prevalence of body practices and physical activity promotion actions was observed after NASF implement ation. • PMAQ evaluation included teams selected by managers, possibly the highest-performing ones, which may limit generaliza bility;	

				potential differences in non-evaluated teams should be considered.
Westland *et al*. (2019)	Mixed-methods	To explore the experiences of patients at risk for cardiovascular diseases in Primary Health Care with the Activate intervention to increase physical activity.	93 patients from 16 general practices in the Netherlands; 22 patients participated directly in the intervention component.	• The Activate intervention improved patients' awareness of the importance of physical activity and increased perception of activity quantity and intensity. • Self-monitoring tools were crucial in promoting physical activity without reliance on external reminders. • Internal factors (e.g., physical limitations) and external

					factors (e.g., weather, lack of time) affected adherence and maintenance. • Even without objective increases in activity levels, patients reported physical and emotional benefits, enhancing engagement. • Behavior change and self-management–based interventions such as Activate may be effective in Primary Health Care, highlighting the importance of personalize

				d strategies to overcome internal and external barriers.
Caram *et al*. (2021)	Qualitative	To analyze, from the users' perspective, the Health Gym Program (Programa Academia da Saúde – PAS) as an opportunity to reduce inequalities in access to health promotion actions within Primary Health Care (PHC) in Brazil.	The study population consisted of 1,059 users who joined the PAS between 2007 and 2011. The qualitative study included 19 users interviewed in March 2012. Participants were predominantly women (89%), with a mean age of 49.3 years, and generally had low income and educational levels. Regarding health conditions, 54.8% reported having one to three chronic	• The findings indicated that the PAS expanded free access to health promotion activities, particularly among populations living in socially vulnerable areas. Users reported improvements in lifestyle, especially increased physical activity and healthier eating habits. The program also contributed to social interaction,

				noncommunicable diseases, 44.3% had hypertension, and 11.6% had diabetes.	community bonds, leisure, well-being, self-esteem, autonomy, and engagement in self-care. • However, the study identified limitations, including weak integration between the PAS and Primary Health Care Units (UBS) and a predominance of physical activity over other health promotion activities. Overall, the PAS demonstrated potential to reduce inequalities in access to health	

				promotion actions by providing opportunities to populations with limited access to these services.

Source: Prepared by the authors.

Table 6. Assessment instruments used in the articles identified in the bibliographic search and their applicability to AQAF-PHC.

Reference	Domain(s) evaluated	Instrument (s) used	Items/Questions	Applicability in AQAF-PHC
Mello *et al.* (2022)	Users	Interview	Measurement of leisure-time physical activity (LTPA) during a typical week.	Assess leisure-time physical activity levels among users and their variations.
Souza *et al* (2022)	Users	Interview	Question on barriers to physical activity (e.g., lack of time, lack of companionship, fear of injury, among others).	Analyze perceived barriers to physical activity and their association with sociodemographic characteristic

				s and health conditions.
Papini *et al*. (2021)	Users	Questionnaire, informational leaflets, Transtheoretical Model	Individual counseling supported by informative and illustrative leaflets based on the Transtheoretical Model for behavior change, aiming to increase physical activity levels through personalized strategies.	Analyze the feasibility of brief physical activity counseling and compare it with supervised exercise intervention in terms of cost and cost-effectiveness.
Santos *et al*. (2021)	Users	Structured interview / Questionnaire	Sociodemographic factors, health conditions, and leisure-time physical activity.	Explore factors associated with physical activity counseling and identify characteristics influencing guidance.
Moraes *et al*. (2021)	Professional competence	Self-administered survey questionnaire	49 questions divided into five blocks: (1) physical activity counseling, (2) knowledge of physical activity recommendations, (3) leisure-	Evaluate the effectiveness of the 5As model (ask, assess, advise, assist, arrange) in physical activity counseling.

			time physical activity level, (4) professional training and practice, (5) sociodemographic data.	
Souza-Neto; Florindo; Costa (2021)	Professionals	Psychosocial questionnaire on physical activity counseling	Questions on counseling behavior based on the Transtheoretical Model stages: precontemplation, contemplation, preparation, action, maintenance.	Assess counseling practices on physical activity and psychosocial barriers faced by professionals.
Fernandes; Neto (2021)	Users	Semi-structured interview	Analytical categories: meaning and modes of use of body practices/physical activity, discourses about the Academia da Cidade Program, articulation of practices with comprehensive care.	Analyze users' discourses about the program and integration of health promotion actions.
Moura *et al*. (2020)	Users, Service management,	Face-to-face form	Objective and open-ended questions on sociodemographic aspects,	Assess users' perception and engagement in

	Infrastructure		equipment use, need for improvements in outdoor gyms (AAL), presence of Physical Education Professionals, professional performance, and community involvement.	implementation and use of outdoor gyms, and referral to services.
Lucetti *et al*. (2020)	Users, Environment, Infrastructure	Semi-structured interview	Open questions about physical activity practice, structure and functioning of community centers, equipment, available professionals, impact of physical activity, and lack of integration with primary care.	Evaluate users' perceptions of physical activity and infrastructure of community centers.
Lim *et al*. (2020)	Users	Interviews and questionnaire	Phase 1: Quantitative data on physical activity (PA) recommendations. Phase 2: Qualitative interviews	To assess barriers and facilitators to physical activity practice based on quantitative and

			exploring facilitators and barriers to PA practce.	qualitative data.
Polo *et al*. (2020a)	Users	IPAQ (long version) and accelerometer (ActiGraph)	IPAQ to measure physical activity in four domains (leisure, work, transport, household); accelerometer to measure the physical activity continuum (sedentary to moderate/vigorous).	Measure users' physical activity levels and their relationship with health outcomes.
Polo *et al*. (2020b)	Users	Focus group	Discussions on motivations, facilitators, and barriers to initiating and maintaining physical activity; access and preferences for activities; perception of personal capabilities.	Investigate motivations for initiation and maintenance of physical activity practice.
Seus *et al*. (2019)	Professionals / Users	Electronic questionnaire (PMAQ)	Modules including: observation of Basic Health Unit structure, interviews with professionals	Assess perceptions regarding the PMAQ cycle, focusing on improvemen

			and users, and document verification.	ts in access and quality of Primary Health Care.
Westland *et al*. (2019)	Users	Questionnaire and semi-structured interviews	Questions about 17 behavior change techniques (BCTs), such as goal setting, action planning, feedback, and self-monitoring, applied in the Activate intervention group.	Evaluate the impact of the "Activate" intervention on physical activity promotion.
Caram *et al*. (2021)	Users	Semi-structured interview	Questions on sociodemographic characteristics, health conditions, nutritional status, and perceptions of physical activity within the Health Academy Program (PAS).	Assess user profile and the perceived impact of physical activity on health conditions.

Source: Prepared by the authors.

Table 7. Descriptive synthesis of the dissertations and theses included in the review.

Reference	Study type	Objective(s)	Profile / Population / Sample	Main results and outcomes
Oliveira (2023)	Descriptive and correlational cross-sectional	To identify variables associated with sociodemographic profile, health habits, physical activity level, psychosocial aspects, and satisfaction with the Health Academy Program (PAS).	PAS users from 7 municipalities across three Regional Development Councils (COREDES) of Rio Grande do Sul (Central, Jacuí Centro, and Vale do Rio Pardo).	• Majority were women aged 60–74 years, retired/pensioners (69.71%), with incomplete elementary education and monthly income between R$2,000 and R$2,900. • Overweight (41.93%) and hypertension (58.69%) were prevalent. • Low physical activity levels: 25.56% did not walk in the previous week; high average sitting time (200 min/day on

				weekdays and 244 min/day on weekends). • High overall satisfaction with PAS (83.84%), particularly regarding convenient schedules (82.57%) and infrastructure of centers (75.75%).
Sokoloski (2023)	Exploratory descriptive	To structure strategies for qualifying state-level management of the Health Academy Program (PAS) within the Primary Health Care Division and the 18 Regional Health Coordinations of the Rio Grande do Sul State Health Secretariat.	18 Regional Health Coordinations of Rio Grande do Sul.	• Most participants recognized PAS as a relevant health promotion strategy but identified implementation challenges, including lack of efficient monitoring, limited knowledge of the program among

				municipal managers, and absence of specific funding for health promotion. • Only two State Health Secretariats (Alagoas and Paraná) had organizational structures similar to the Ministry of Health. • Main difficulties included high turnover of municipal managers, lack of technical visits, and bureaucratic barriers to program adherence and funding.
Campos (2021)	Observational,	To analyze the behavior of POEPS-	852 municipalities adhering to	• POEPS-MG adherence reached

	quantitative	MG indicators in four-month evaluations between 2016 and 2019.	POEPS-MG (2016–2019), with a final analytical sample of 360 municipalities.	99.8%. The percentage of municipalities meeting all agreed targets increased from 14.6% (2016) to 25.4% (2018), with a slight decrease in 2019 (22.5%). • Family Health Strategy (FHS) coverage was positively associated with achievement of indicators. • Implementation was influenced by structural factors (human resources, materials, equipment) and political-electoral context.

				• Overall growth in indicators was observed, although with periods of irregularity.
Coutinho (2018)	Quantitative	To analyze the relationship between Primary Health Units (UBS) and the Programa Academia da Cidade (PAC), considering referral processes and user flow between services.	45 UBS in Belo Horizonte (5 per regional district); 1,042 health professionals interviewed (managers, physicians, nurses, nutritionists, physiotherapists, physical education professionals, social workers, community health agents – ACS, endemic disease agents – ACE, among others).	• 61% of professionals refer users to PAC, while 17.6% do not; • Only 53.7% acknowledge the existence of a structured referral flow; • Main barriers: users' lack of information about PAC and absence of a structured flow between UBS and PAC; • Community Health Agents (ACS) are

				the professionals who most frequently refer users; • Suggested strategies to strengthen UBS–PAC integration include user awareness initiatives, team training, periodic feedback, and monthly discussions within NASF.
Andrade (2017)	Evaluative	To assess and improve an evaluation instrument for the Health Academy Program (PAS), ensuring higher quality standards and enhancing its impact on prevention	21 expert participants, including representatives from different Brazilian states and specialists in health/physical education.	• The monitoring form used in PAS does not ensure systematic recording of activities; it generates local reports but was considered unreliable and

		and control of chronic noncommunicable diseases.		associated with low satisfaction; • Collected data are not clearly disseminated; users do not access information nor participate in the monitoring process, failing to guarantee rights and duties of stakeholders; • Information was not considered fully reliable or accurate, limiting achievement of program goals and compromising quality assessment; • Significant limitations were identified regarding

				utility, adequacy, and accuracy, weakening its role in improving PAS.

Source: Prepared by the authors.

Table 8. Assessment instruments used in the dissertations and theses identified in the CAPES database and their applicability to AQAF-PHC.

Reference	Domain(s) evaluated	Instrument(s) used	Items/Questions	Applicability in AQAF-PHC
Oliveira (2023)	Users	Questionnaire validated by experts	Structured into five dimensions: sociodemographic profile, dietary and health habits, physical activity level, satisfaction with PAS, and psychosocial aspects. Descriptive statistics were applied for data analysis.	Enables assessment of PAS impact on health promotion and users' quality of life, as well as measurement of satisfaction with the program.
Sokoloski (2023)	Professionals	Electronic questionnaire via	Questions assessing professionals' perceptions	Provides evidence to support qualification

		Google Forms	regarding PAS implementation, challenges, and its potential as a health promotion strategy in municipalities.	of state-level PAS management and formulation of strategies to strengthen the program.
Campos (2021)	Management / Indicators	Microsoft Excel® spreadsheets for data collection and analysis.	Assessment of the implementation of the State Health Promotion Policy of Minas Gerais (POEPS-MG) through target achievement, ESF/eAB coverage, and impact of the Financial Resource Allocation Factor (FA).	Supports performance analysis of PAS across different contexts, allowing strategic adjustments in resource allocation and management.
Coutinho (2018)	Professionals	Semi-structured interviews and self-administered questionnaire	Question blocks addressing user referral processes, UBS–PAC integration flow, referral barriers, use of evaluation instruments, and professionals' perceptions of PAS structure.	Contributes to understanding challenges in UBS–PAS articulation, guiding improvements in referral flow and program adherence.

Andrade (2017)	Professionals	Specialist-centered evaluative approach	Checklist based on evaluation standards of Utility (U2 – Stakeholder Attention; U5 – Relevant Information; U6 – Meaningful Products and Processes; U7 – Appropriate and Timely Communication and Reports), Propriety (A4 – Clarity and Equity; A5 – Transparency and Openness), and Accuracy. Ten standards were considered. Items were rated on a three-point Likert scale (Agree, Partially Agree, Disagree). Instrument validation occurred in two stages: congruence analysis and technical/content validation.	Provides theoretical and methodological grounding for the Quality Assessment of Health Care and Physical Activity Counseling in Primary Health Care (AQAF-APS), supporting evaluation of adherence and efficiency of the model in Health Centers.

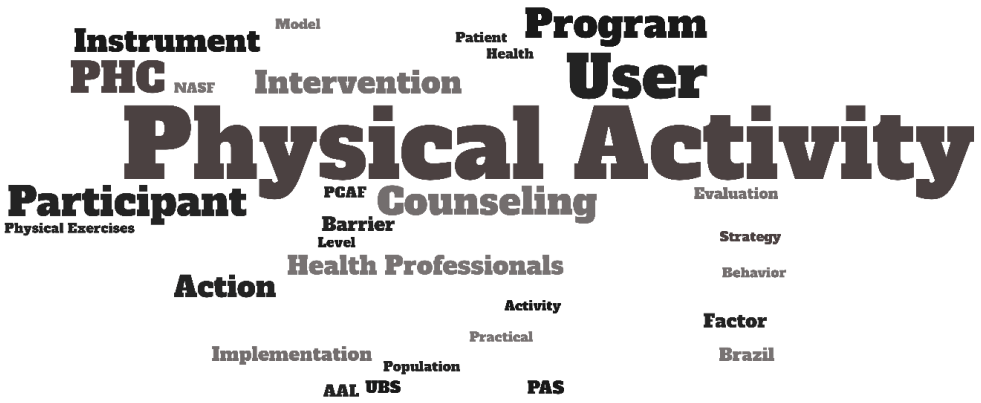
Source: Prepared by the authors.

The meta-aggregation of the articles included in this review was conducted using IRaMuTeQ software, applying lexical statistical techniques to identify thematic patterns and conceptual interrelationships.

The analyzed corpus consisted of 15 texts, segmented into 132 text segments (TSs), of which 104 were retained, representing a utilization rate of 78.79%. A total of 4,800 lexical occurrences were identified, comprising 1,302 distinct forms; among these, 943 were classified as active forms and 108 as supplementary forms. The results were organized into three main analytical axes: (1) lexical frequency analysis (word cloud), (2) similarity analysis, and (3) Descending Hierarchical Classification (DHC).

The word cloud (Figure 2) revealed the most recurrent terms in the textual corpus, highlighting the primary thematic emphases of the analyzed studies. The most relevant terms were: “Physical activity” (f = 71), “User” (f = 44), “PHC” (f = 31), “Program” (f = 29), “Counseling” (f = 28), and “Intervention” (f = 23).

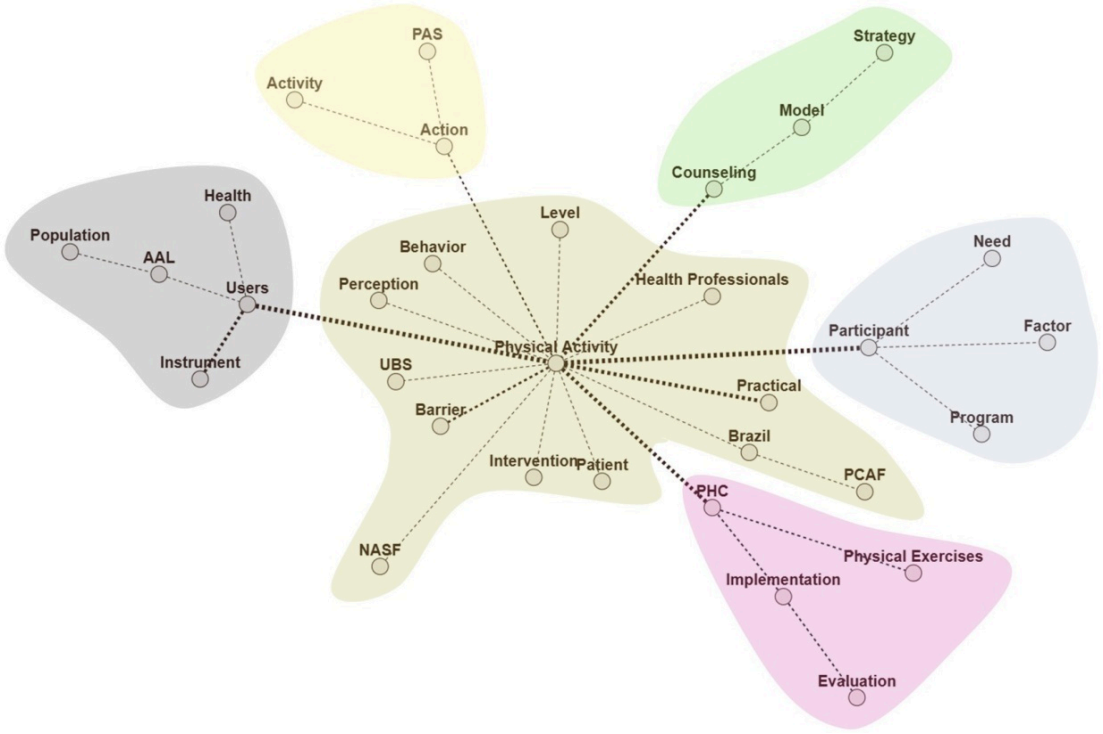
Figure 2. Word cloud generated from the textual analyses of the descriptive synthesis of the studies included in the scoping review.



Source: Prepared by the authors.

To further explore the textual corpus, a similarity analysis was performed (Figure 3). Based on graph theory, this analysis revealed a complex network of conceptual relationships, with the term “Physical activity” positioned as the central node of the semantic structure. This approach enabled the identification of five fundamental connections that constitute the theoretical framework of the analyzed studies.

Figure 3. Similarity analysis generated from the textual analyses of the descriptive synthesis of the studies included in the scoping review.



Source: Prepared by the authors.

The similarity analysis demonstrated that the concept of “Physical activity” constitutes the central axis of the semantic network, articulating with five main terms that organize the conceptual structure of the field of study. “Physical activity” was directly connected to “User”, highlighting the central role of the individual in interventions, and to “Participant”, emphasizing the active nature of engagement in programs. The strong association with “PHC”

situates the studies within the context of Primary Health Care, while the connection with “Counseling” reflects the predominant methodological strategies. Finally, the link with “Action” refers to the operational dimension of interventions.

Each of these central terms presented its own associative networks. “User” was related to “Health”, evidencing the focus on health benefits; to “Instrument”, referring to assessment tools; to “AAL”, as concrete intervention settings; and to “Population”, underscoring the collective approach. “Participant” was connected to “Program”, demonstrating the importance of organized structures; to “Need”, pointing to specific demands; and to “Factor”, associated with elements influencing participation.

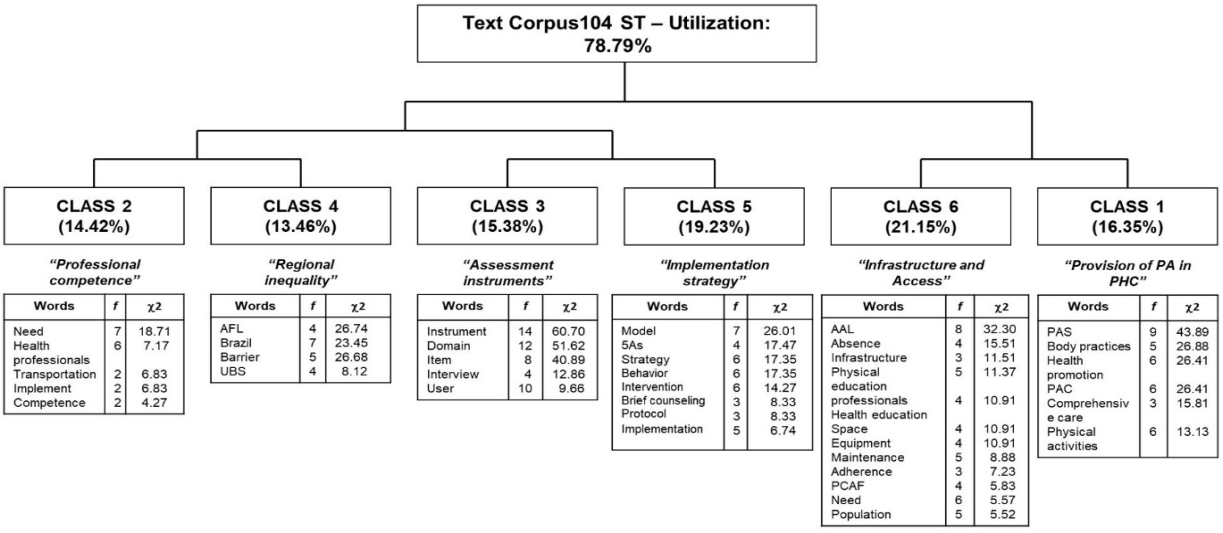
The connection with “PHC” unfolded into “Physical exercises” as the core practice; “Implementation”, regarding operationalization; and “Evaluation”, related to outcome measurement. “Counseling” was linked to “Model”, indicating underlying theoretical approaches, and to “Strategy”, referring to intervention methods. Lastly, “Action” was associated with “PAS”, as an institutional policy, and with “Activity”, referring to specific practices.

Other terms, although with lower connectivity, also demonstrated relevant associations with “Physical activity” including “Behavior”, “Perception”, “Level”, “Health professionals”, “Practical”, “Brazil”, “PCAF”, “Patient”, “Intervention”, “NASF”, “Barrier”, and “UBS”. These terms express complementary dimensions of PA practice, encompassing individual perceptions, professional roles, institutional support, and contextual barriers.

This relational configuration reveals a conceptual structure organized into three main dimensions: (1) the individual dimension, represented by “User” and “Participant”; (2) the institutional dimension, expressed by “PHC” and “PAS”; and (3) the methodological and operational dimension, reflected by “Counseling” and “Action”. The multiple interconnections among these elements highlight the complexity and multidimensional nature of research on PA promotion within the field of public health.

The analyzed content was categorized into six classes according to the Descending Hierarchical Classification (DHC): Class 1, comprising 17 text segments (16.35%); Class 2, with 15 text segments (14.42%); Class 3, with 16 text segments (15.38%); Class 4, with 14 text segments (13.46%); Class 5, with 20 text segments (19.23%); and Class 6, with 22 text segments (21.15%) (Figure 4).

Figure 4. Dendrogram of the classes generated by the Descending Hierarchical Classification (DHC) from the textual analyses of the descriptive synthesis of the studies included in the scoping review.



Source: Prepared by the authors.

The content of each class is detailed below:

Class 1 (16.35%), entitled “Provision of PA in PHC”, presented highly associated terms such as “PAS” (χ^2 = 43.89), “Body practices” (χ^2 = 26.88), “Health promotion” (χ^2 = 26.41), “PAC” (χ^2 = 26.41), “Comprehensive care” (χ^2 = 15.81), and “Physical activities” (χ^2 = 13.13). This class highlights the central role of PHC as a privileged setting for the development and expansion of body practices aligned with health promotion guidelines and comprehensive care principles. The frequent references to PAS and PAC underscore their incorporation into public policies aimed at collective health.

Class 2 (14.42%), labeled “Professional competence”, comprised terms such as “Need” (χ^2 = 18.71), “Health professionals” (χ^2 = 7.17), “Transportation,” “Implement,” and “Competence.” The content of this class reflects gaps in training and technical qualification among professionals to effectively promote physical activity within PHC. The presence of the term “Transportation” may indicate logistical challenges affecting both users’ access and professionals’ mobility, thereby hindering participation in scheduled activities.

Class 3 (15.38%), entitled “Assessment instruments”, highlighted terms such as “Instrument” (χ^2 = 60.70), “Domain” (χ^2 = 51.62), “Item” (χ^2 = 40.89), “Interview” (χ^2 = 12.86), and “User” (χ^2 = 9.66). This class represents the evaluative dimension of PA promotion practices, demonstrating the systematic use of quantitative and qualitative tools to measure adherence, effectiveness, user satisfaction, and impacts on health indicators. The findings reveal methodological rigor in scientific production, aiming to generate evidence to support policies and intersectoral practices.

Class 4 (13.46%), termed “Regional inequality”, aggregated the terms “AAL” (χ^2 = 26.74), “Brazil” (χ^2 = 23.45), “Barrier” (χ^2 = 26.68), and “UBS

(Basic Health Unit)" (χ^2 = 8.12). The content of this class points to regional disparities in the implementation and provision of PA actions, highlighting geographic, structural, and sociocultural barriers. References to Brazil and Basic Health Units reinforce the heterogeneity of local contexts and the need for territorially adapted strategies.

Class 5 (19.23%), designated "Implementation strategy", included terms such as "Model" (χ^2 = 26.01), "5As" (χ^2 = 17.47), "Strategy" (χ^2 = 17.35), "Behavior" (χ^2 = 17.35), "Intervention" (χ^2 = 14.27), "Brief counseling" (χ^2 = 8.33), and "Implementation" (χ^2 = 6.74). This class addresses the theoretical and practical models applied in the execution of PA promotion initiatives, with emphasis on behavioral strategies based on the "5As" framework (Assess, Advise, Agree, Assist, Arrange). It also underscores the relevance of brief counseling and user-centered interventions as mechanisms to foster adherence and behavioral change.

Class 6 (21.15%), the most representative within the corpus, was entitled "Infrastructure and Access". Among the most expressive terms were "AAL" (χ^2 = 32.30), "Absence" (χ^2 = 15.51), "Infrastructure" (χ^2 = 11.51), "Space" (χ^2 = 10.91), "Equipment" (χ^2 = 10.91), "Maintenance" (χ^2 = 8.88), "Adherence" (χ^2 = 7.23), and "Population" (χ^2 = 5.52). The findings indicate that deficiencies in physical and material infrastructure, coupled with the absence of adequate spaces and insufficient maintenance, compromise population access to proposed activities, directly affecting adherence to health promotion programs.

The analysis of clusters generated by the DHC revealed the formation of three main interpretative cores based on semantic and

lexical proximity among classes. The first cluster, formed by Classes 1 and 6, represents the axis “Provision and Access Conditions,” integrating structural and operational aspects related to service availability and population accessibility. The second cluster, encompassing Classes 3 and 5, reflects the axis “Evaluation and Implementation Strategies,” combining methodological aspects of measuring adherence and intervention effectiveness with the theoretical and practical strategies applied to promote physical activity. The third cluster, composed of Classes 2 and 4, addresses the axis “Professional Competence and Regional Inequality,” highlighting disparities in professional training and regional barriers that hinder effective implementation of PA practices, particularly in more vulnerable contexts.

These clusters reveal the complexity of promoting physical activity in PHC, demonstrating that effectiveness depends not only on implementing appropriate interventions but also on ensuring adequate structural conditions, continuous professional development, and adaptation to regional specificities. The interrelationship among infrastructure, professional competence, methodological strategies, and contextual inequalities demands an integrated and multidimensional approach to ensure the success of public health policies aimed at promoting physical activity.

This analysis provides a comprehensive understanding of the factors influencing the implementation of PA programs in PHC, offering essential evidence to inform more effective public policy formulation. The interactions among infrastructure, professional qualification, and intervention strategies are decisive for optimizing health outcomes and promoting the well-being of the populations served.

4. DISCUSSION

The present review demonstrated that the promotion of physical activity (PA) in Primary Health Care (PHC) is influenced by a complex set of structural, professional, and contextual determinants that affect both service provision and population adherence. The effectiveness of these interventions extends beyond the creation of specific programs and depends on the articulation among public policies, professional training, the development of appropriate assessment instruments, and implementation strategies aligned with local realities.

The literature recognizes PA as an essential determinant for the prevention and control of noncommunicable chronic diseases (NCDs), which account for the greatest global burden of morbidity and mortality (WHO, 2025). Within this scenario, PHC plays a strategic role as the preferred entry point to the health system and as an organizing component of health care networks, assuming responsibilities that go beyond clinical care and encompass the promotion of healthy behaviors (Ferreira-Batista *et al.*, 2023; Figueiredo *et al.*, 2023; Khatri *et al.*, 2023).

Despite advances in national initiatives, such as the Health Academy Program (PAS) and the City Academy Program (PAC), significant challenges remain in consolidating the integration of PA into the routine of health services and communities. Among the most recurrent obstacles is the fragmentation between Basic Health Units (UBS) and PA centers, which compromises the integration of care flows and limits the continuity of actions. The absence of standardized referral protocols, combined with weak interinstitutional coordination, hinders the consolidation of health

care networks capable of ensuring regular access to PA, highlighting the need for policies that foster institutional integration and continuity of care (Leese; Abraham; Smith, 2023; Christofoletti *et al.*, 2022; Sousa; Silva, 2024).

This fragmentation is compounded by regional disparities, revealing inequalities in the provision of and access to PA across Brazilian territory. Differences in the distribution of financial resources, infrastructure, and social and cultural determinants shape population adherence to body practices. In contexts characterized by greater socioeconomic vulnerability, precarious material conditions, low political prioritization, and high managerial turnover exacerbate service fragility and perpetuate inequalities, reinforcing the need to adapt interventions to local specificities (Fernandes *et al.*, 2017; Ferrari *et al.*, 2021; Wendt *et al.*, 2021; Pereira *et al.*, 2023).

The effectiveness of PA actions is also closely linked to the qualification of PHC professionals. Gaps in initial education and continuing professional development compromise the ability to provide high-quality counseling and implement consistent interventions. Even when PA is recognized as a health promotion measure, the absence of specific training reduces professionals' self-confidence and limits the use of intervention opportunities (Alves *et al.*, 2024; Osinaike *et al.*, 2025). The Brazilian context, marked by diverse professionais profiles—including physicians, nurses, community health workers, and physical education professionals—demands interdisciplinary training processes that align knowledge and enhance teamwork (Silva *et al.*, 2015).

Structural and organizational conditions further influence professional performance. Work overload, scarcity of institutional

incentives, and employment instability resulting from high staff turnover reduce motivation and compromise the continuity of actions (Gonçalves; Neves, 2023; Sokoloski, 2023). In this context, valuing health professionals, ensuring adequate working conditions, and developing communicative and empathetic skills are essential to strengthen therapeutic bonds and promote adherence to PA, particularly among socially vulnerable populations (Hatfield; Withers; Greaves, 2020; Mata *et al.*, 2021).

The implementation of structured behavioral strategies is also decisive for the success of interventions. Theoretical models such as the "5As" (Ask, Assess, Advise, Assist, Arrange) and brief counseling approaches have demonstrated effectiveness in promoting PA; however, their application depends on professional training, systematic supervision, and the availability of supportive tools, which remain limited in many services (Guerra *et al.*, 2023). Isolated or purely informational strategies tend to yield limited results, reinforcing the need for multifaceted approaches that integrate motivational, social, and environmental components (El Kirat *et al.*, 2024). Interventions aligned with intersectoral policies and community networks show greater sustainability potential by fostering supportive environments for PA practice (WHO, 2020; Westland *et al.*, 2019).

The findings of this review indicate that PA promotion in PHC should be conceived as a continuous, systemic, and collective process, sustained by the articulation among public policies, professional technical competence, validated assessment instruments, and context-sensitive implementation strategies. Despite observed advances, relevant limitations persist, including methodological heterogeneity of instruments, scarcity of longitudinal studies, and

concentration of research in urban areas—factors that restrict comparability, generalizability, and the assessment of sustained intervention impact.

Among the identified strengths are structured PA promotion programs, recognition of PHC as a strategic setting for health intervention, and the growing incorporation of digital technologies and standardized instruments for continuous monitoring. Overcoming existing barriers requires structural investments, professional valorization, ongoing capacity building, technological innovation, and strengthened local governance. The convergence of these elements is essential to consolidate PHC as a strategic platform for health promotion, expand the reach of PA initiatives, and reduce social inequalities, thereby maximizing the impact of actions aimed at reducing sedentary behavior and its associated health burdens.

5. CONCLUSION

This review demonstrates that the promotion of physical activity (PA) in Primary Health Care (PHC) faces multifaceted challenges, including structural limitations, gaps in professional training, and regional inequalities. Although programs such as the Health Academy Program have advanced the implementation of PA promotion strategies, significant barriers persist—particularly those related to the precarious conditions of Outdoor Gyms, insufficient equipment, and inadequate maintenance—which compromise user access and adherence. The technical and communicative training of professionals remains insufficient, reinforcing the need for continuous capacity building and the application of evidence-based

protocols, such as the 5As framework, to ensure effective, personalized, and culturally sensitive counseling.

Regional inequalities, reflected in socioeconomic and geographic disparities, underscore the urgency of equity-oriented public policies and context-sensitive interventions. Moreover, the predominance of cross-sectional studies, combined with methodological heterogeneity, highlights the need for caution in interpreting findings, considering potential biases related to participant selection, variable measurement, control of confounding factors, and reflexivity in qualitative studies. In clinical trials, however, adequate control of selective reporting bias strengthens the reliability of reported outcomes.

Therefore, consolidating effective practices for PA promotion in PHC requires integrated approaches that simultaneously foster structural improvements, professional qualification, rigorous monitoring, and sensitivity to regional specificities, while also considering the methodological quality of available evidence. Such strategies are essential to optimize public health outcomes and reduce inequalities in physical activity participation.

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