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INTEGRATIVE LITERATURE REVIEW ARTICLE

PHYSICAL ACTIVITY IN MEN'S HEALTH PROMOTION PROGRAMS

ATIVIDADE FÍSICA NOS PROGRAMAS DE PROMOÇÃO À SAÚDE DO HOMEM

ACTIVIDAD FÍSICA EN LOS PROGRAMAS DE PROMOCIÓN DE LA SALUD DEL HOMBRE

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ABSTRACT

Objective: it was sought to analyze programs that include physical activity as a tool for the promotion of human health. ***Method:*** This is an integrative literature review based on searches in the following databases: Cochrane Library, MEDLINE via PubMed, Web of Knowledge, LILACS, SPORTDiscus, and Virtual Health Library. Tables and figures are presented. ***Results:*** a total of 720 studies were found, but only 15 met the inclusion criteria. It was verified that these studies comprised samples of people between the ages of 18 and 59 years and that the most predominant approach was qualitative, and the articles analyzed the low adherence of men to health services. However, physical activity was considered a strategy for promotion of men's health. ***Conclusion:*** it is concluded that, although there are strategies to promote the health of men, the adherence of the male population remains challenging, making it necessary to include physical activities in programs aimed at men's health. ***Descriptors:*** Men's Health; Exercise; Public health; Primary Health Care; Motor Activity; Nursing Care.

RESUMO

Objetivo*:** buscou-se analisar os programas que incluem a atividade física como ferramenta para a promoção à saúde do homem. ***Método*:** trata-se de uma revisão de literatura, tipo revisão integrativa, realizada a partir de buscas nas bases de dados Cochrane Library, MEDLINE via PubMed, Web of Knowledge, LILACS, SPORTDiscus e Biblioteca Virtual em Saúde. Apresentaram-se os resultados em forma de tabelas e figuras. ***Resultados*:** encontrou-se um total de 720 estudos, entretanto somente 15 corresponderam aos critérios de inclusão e exclusão. Verifica-se que esses estudos compreenderam amostras de pessoas com idades entre 18 e 59 anos e que a abordagem mais predominante foi a qualitativa, analisando a baixa adesão do sexo masculino aos serviços de saúde; todavia, a atividade física foi considerada uma estratégia de promoção à saúde dos homens. ***Conclusão: conclui-se que, embora existam estratégias de promoção à saúde do homem, a adesão da população masculina continua desafiadora, fazendo-se, portanto, necessária a inclusão de atividades físicas nos programas de saúde do homem. ***Descritores*:** Saúde do Homem; Exercício; Saúde Pública; Atenção Primária à Saúde; Atividade Motora; Cuidados de Enfermagem.

RESUMEN

Objetivo: analizar los programas que incluyen la actividad física como herramienta para la promoción de la salud del hombre. ***Método:*** se trata de una revisión de la literatura, clasificada como revisión integradora, conducida mediante búsquedas en las bases de datos Cochrane Library, MEDLINE vía PubMed, Web of Knowledge, LILACS, SPORTDiscus y Biblioteca Virtual en Salud. Los resultados se presentaron en forma de tablas y figuras. ***Resultados:*** se encontró un total de 720 estudios; sin embargo, solo 15 correspondían a los criterios de inclusión y exclusión. Se comprueba que estos estudios abarcaron muestras de personas de entre 18 y 59 años y que el enfoque más prevalente era cualitativo, analizando la baja adhesión del sexo masculino a los servicios de salud; sin embargo, la actividad física se consideró una estrategia de promoción de la salud de los hombres. ***Conclusión:*** se concluye que, aunque existen estrategias para promover la salud del hombre, la adhesión de la población masculina sigue siendo desafiante, por lo que es necesario incluir las actividades físicas en los programas de salud del hombre. ***Descriptores*:** Salud del Hombre; Ejercicio; Salud Pública; Atención Primaria de Salud; Actividad Motora; Atención de Enfermería.

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INTRODUCTION

It is known that physical inactivity contributes to the reduction of life expectancy and affects a large part of the world population, causing 6% of cases of coronary heart disease (3.2% in Southeast Asia and 7.8% in the Eastern region of the Mediterranean); 6% of cases of type 2 diabetes; 10% of breast cancers; and 10% of colon cancers. It is also identified as the cause of 9% of the occurrences of premature mortality and of more than 5.3 million of the 57 million deaths worldwide. It is understood that inactivity has not yet been eliminated, but if it is reduced by 10% or 25%, more than 533,000 or more than 1.3 million deaths, respectively, can be avoided each year. It is estimated that the elimination of physical inactivity would increase the life expectancy of the world population by 0.68 years.[1]

According to the World Health Organization, physical activity is defined as any movement of the body determined by skeletal muscles that promotes energy expenditure, such as household chores, travels, and leisure activities.[2]

In Brazil, men's health is on the public health agenda, represented by the National Policy of Comprehensive Healthcare to Men (PNAISH), formalized on August 27, 2009,[3] whose purpose is to qualify the health care provided to men, in the perspective of care lines that protect the comprehensiveness, as well as primary care, to avoid restricting it to recovery, ensuring the promotion of health and prevention of avoidable diseases.[4]

However, it is important to note that studies aimed at the investigation of preventive health practices, indication of physical activity, and approaches adopted in men's health care programs are still scarce.

This type of study is considered vital for those involved in decision-making processes related to health behaviors.[5-6]

OBJECTIVE

- To analyze programs that include physical activity as a tool for the promotion of men's health.

METHOD

This is an integrative review of literature carried out through a methodological path composed of six stages: 1) identification of the theme and selection of the hypothesis or question of the research for the elaboration of the integrative review; 2) establishment of criteria for inclusion and exclusion of studies/sampling or search in the literature; 3) definition of the information to be extracted from the selected studies/categorization of studies; 4) evaluation of studies included in the integrative review; 5) interpretation of results; and 6) presentation of the review/synthesis of knowledge. It should be emphasized that this research method has the purpose of gathering and synthesizing research results on a given subject in a systematic and orderly manner, contributing to the deepening of knowledge of the researched topic.

This review had the following guiding question: "What is the characteristic of programs that include physical activity for the promotion of men's health?"

The search strategy was applied in the Cochrane Library, MEDLINE via PubMed, Web of Knowledge, LILACS, SPORTDiscus and Virtual Health Library using the following Health Sciences Descriptors and Medical Subject Headings (Descs/MeSH): "men's health", "physical activity and men", and " health promotion". In the Virtual Health Library and SPORTDiscus databases, the following descriptors were used: "motor activity" and "men"; "Family Health Strategy" and "men's health", associated through the Boolean operators OR and AND.

Articles published in Portuguese and English were included, which were qualitative studies, cross-sectional studies, clinical trials or studies of interventions related to comprehensive health care for men with emphasis on the practice of physical activity in this population. In order to reach a more comprehensive understanding of the object studied, articles published between the years of 2009 and 2017 were selected. However, narrative reviews, literature reviews, quantitative studies, and publications *in press* were excluded.

Two searches were carried out in each database, with the crossing of descriptors with Boolean operators. Controlled descriptors were used, in English or Portuguese, depending on the database used at each stage. Controlled and indexed descriptors in Portuguese and English were searched the Cochrane Library, MEDLINE via PubMed, Web of Knowledge, LILACS, SPORTDiscus and Virtual Health Library databases.

The selection of publications covered three stages; in the first step, articles that were repeated in the databases were eliminated. In the second step, the title and abstract of the remaining articles were read and those that did not meet the purpose of the review were excluded. In the last stage, the remaining articles were read in full length, and those that did not meet the purpose of the review were discarded.

Also, an adapted selection instrument, adequate for the proposed objectives, was used in the phase of data collection. It should be emphasized that this instrument was used by the authors, and the selection of studies occurred individually, so that there was a greater rigor in the selection of the articles.

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The reading method was adopted to perform the analysis of the data in two stages: 1) analytical view: reflexive and critical reading of the selected articles and choice of the main contents related to the theme and 2) synthetic view: interpretation of data /results presented in the studies. It should be noted that an instrument was created for the collection and analysis of data of the studies. The following information was recorded in this instrument: objectives, specific interventions, specific contexts, included studies, time of intervention, number of electronic databases, manual searches, language restriction, samples, and others.

Three categories for analysis were grouped according to content similarity: reference, number of synthesis, and main result. In the results, we present the synthesis in a prism flowchart of the selection of documents retrieved from the consulted databases, as well as their systematization and organization steps. The analysis of data and the presentation of the review were done in a descriptive manner, making it possible to evaluate the available literature on the subject investigated and providing subsidies for decision making, as well as the identification of knowledge gaps for the construction of future researches.

RESULTS

A total of 720 articles (published electronically and manually) were identified. After reading the abstracts, 380 publications were excluded, remaining 220. In the evaluation of titles and abstracts, 145 were left. After the evaluation of texts in their full length, 15 publications were selected and constituted the final sample (Figure 1).

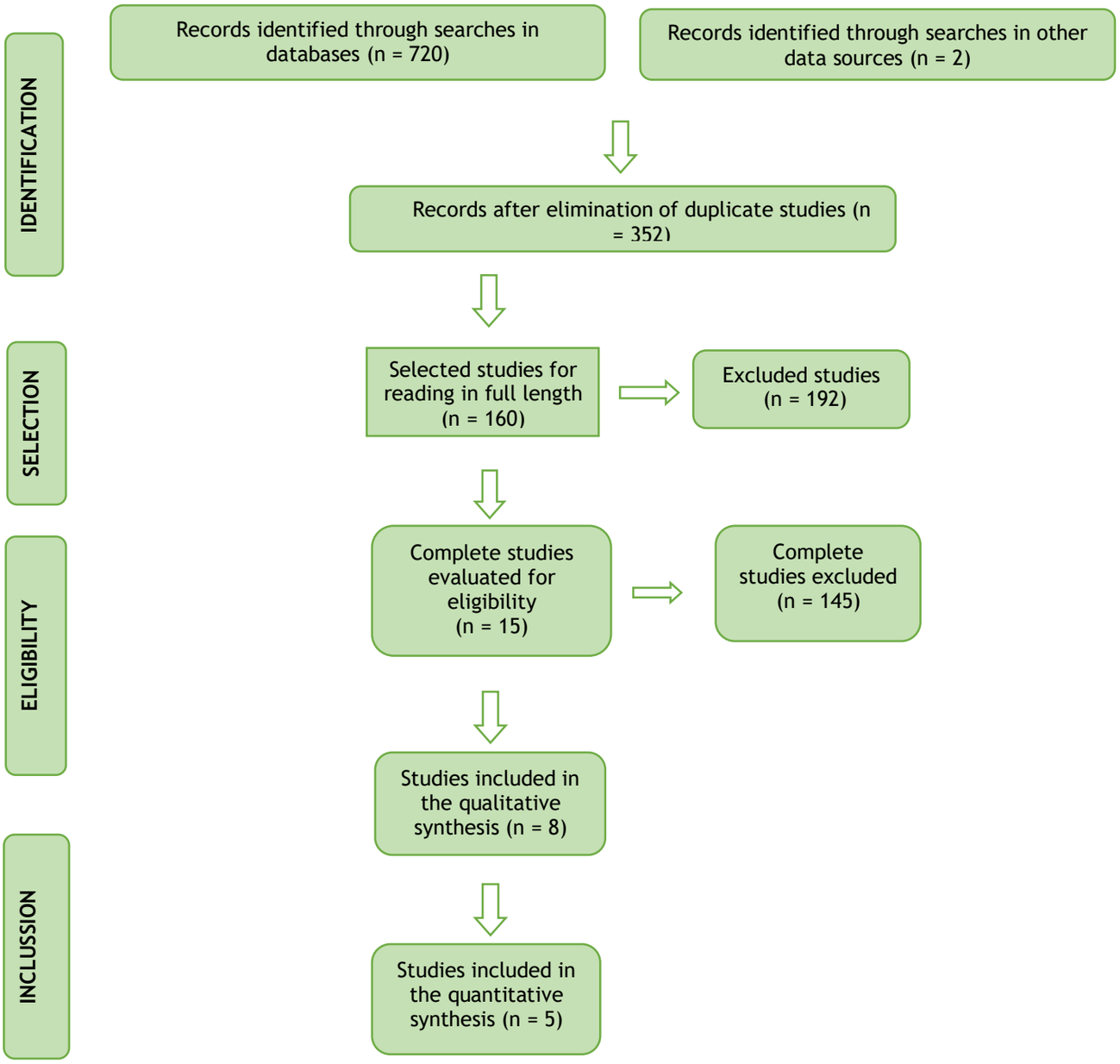

Figure 1. Flowchart of search of articles. São Luís (MA), Brazil, 2018.

For the review of the articles, some categories that composed the methodology of the research were established for extraction of the synthesis of information of the selected publications (Figure 2).

Objectives	Comprehensive health care for men (6)[4,7-10]; male culture (2)[8,11]; prevention strategies (2)[5,12]; feeding and physical activities with men (5)[1,6,11,13-4]
Specific interventions	Countries: USA[12], Canada[15], Australia[16], South Africa[6], Spain[8]
Specific contexts	Sociodemographic profile (6),[1,4,6,9,11,17,]
Included studies	Clinical trial (1)[6], qualitative study (8)[4,7-10,16,18], cross-sectional study (4)[1,11,17,19], systematic review (1)[14], intervention (1)[13]
Intervention time	≤ 3 months (8)[5,9,10,13-4,16,18-9]; ≤12 months to ≥ 3 years (5)[1,4,6,8,11], between 6 and 8 years (2)[7,11]
Number of electronic databases	(13)[4-9,11,13-4,16,19]
Manual searches	(2)[1,11]
Restriction by language	Only english publications (5)[6,8,10,13,16]
Samples	Male population aged 18 to 59 years (14)[1,4-11,14,16-9], health professionals (4)[4,7,16,18]
Others	Gender relations (1)[4], Studies with positive results (2)[6,13]

Figure 2. Methodological characteristics of the included articles (n = 15). São Luís (MA), Brazil, 2018.

Fifteen (15) revisions contemplated the purpose of this study and were sent to the composition of the descriptive synthesis (Figure 3).

Reference	Nº syntesis	Main result
Ashe, McAllister, Barnes, Sale, Giangregorio, McKay. 2010[7]	3	Number and rate of low-trauma vertebral fractures, number and rate of non-vertebral hip fractures, bone resistance - bone resistance index (BSI) and stress strain index (SSI) -, adherence to specific programs, and self-reported outcomes (e.g., satisfaction with the program).
Gomes, Schraiber, Couto, Valença, Silva, Figueiredo, et al. 2011[17]	6	The users pointed out criteria to positively evaluate the services, taking as reference a communicative and attentive service that does something to them and that reveals readiness.
Aguiar, Almeida. 2012[15]	4	Need for greater mobilization of the health management organs to implement actions to disseminate the National Program for Comprehensive Health Care for Men and training of professionals to care for men through this dissemination.
Marcos, Avilés, Lozano, Cuadros, Calvente. 2013[18]	9	Drug use, aggressive behavior, sexuality and body image; important connections were established between acts of masculinity and health outcomes.
Oliveira, Daher, Silva, Andrade. 2013[12]	11	Different ways of understanding the masculine identity and its realization also emerged from the results.
Storino, Souza, Silva. 2013[20]	16	Need for greater mobilization of health management organs to implement actions to disclose the National Program of Comprehensive Health Care for men and training of professionals to care for men through this dissemination.
Jemmott, Jemmott, Ngwane, Zhang, Heeren, Icard, et al. 2014[14]	8	Drug use, aggressive behavior, sexuality, and body image; important connections were established between acts of masculinity and health outcomes. Different ways of understanding the masculine identity and its realization also emerged from the results.
Pitanga, Almeida, Freitas, Pitanga, Beck. 2014[21]	12	Forty three (43) men were overweight, 26 were obese and 44 had altered blood pressure. The profile of the men who sought and those who did not seek care showed statistically significant differences ($p < 0.05$) for age, schooling, social security, and reference to morbidity at the time of registration. Older men who reported morbidity sought more often health care.
Sousa, Silva, Alves, Pinto, Oliveira, Souza. 2014[22]	13	The results showed that the embracement and the bond stood out as devices that enhance the comprehensive care and recognition of the health needs of the group studied.
Arruda, Barreto, Marcon. 2015[13]	5	The analysis included 22 groups and 537 of 572 men in the health promotion intervention and 22 clusters and 569 of 609 men in the attention control intervention. The estimated probability of fulfilling the physical activity guidelines was 51.0% in the health promotion intervention and 44.7% in the attenuated control, adjusting to the baseline prevalence and grouping of 44 neighborhoods.
Holden, Collins, Anderson, Pomeroy, Turner, Canny, et al. 2015[19]	7	Among the different domains of physical activity analyzed, there was a greater statistical significance in the areas under the ROC curve for physical activity at work and free time. The practice of 180 min/week of moderate physical activity was the best cutoff point for discriminating the absence of arterial hypertension.
Moreira, Gomes, Ribeiro.	10	Of the 77 surveyed individuals, 21 (27%) seek the health service

2016[10]		when they present "malaise"; 23 (30%) reported lack of interest in health care as the main reason preventing them from seeking help; and 65 (84.4%) did not have knowledge about Health Policies for the male population. The preventive exam that was least accomplished was rectal examination (n = 02); 65 (84%) did not smoke; 60 (78%) ingested alcoholic beverages; 28 (36.3%) included fruits and vegetables in their meals; 32 (41.5%) practiced physical activity; and 27 (35.1%) drove after drinking.
Souza, Guimarães. 2016[23]	14	The men highlighted different preventive practices such as hand hygiene, proper feeding, screening examinations, avoiding the use of psychoactive substances, and using personal protective equipment at work and condoms during sexual intercourse. Most of the participants had the family as the main support network in the health-disease process.
Souza, Pelegrini, Silva, Machado, Guimarães. 2016[24]	15	Need to implement the current curriculum, including the insertion of the course on men's health. They suggested that the best implementation strategy is a qualified professional to work directly with the medical school staff and advocated the course on men's health.
Teo, Ng, White. 2017[25]	17	Three axes were identified (male sexuality, male involvement in prenatal care, and paternity). The axes are structured by ideas that permeated the different testimonials. The theme of male sexuality, in association with paternity and health care, still evokes the private dimension, within the limits of the geography of the home. Positive effects on the health of men were obtained with interventions in physical activity including aerobic activities and resistance exercises for 12 weeks to 12 months, in moderate to vigorous intensity. Such interventions promoted better health conditions among men. A total of 60.2% of the men were considered sufficiently active, however, no significant differences were observed between age groups. Walks were the most prevalent PA, and the vigorous activity the less prevalent. Overweight men with symptoms were more likely to have insufficient PA. The existing systems can help increase the dissemination of the application. Important factors that need to be considered when developing a mobile application to improve the capture in health screening were identified.

Figure 3. Main results of articles included in the synthesis (n = 15). São Luís (MA), Brazil, 2018.

The main studies were concentrated in countries of America and Europe. A delimination in the time of intervention of the studies was established, starting with those with a shorter time (≤ three months) to others that had a longer time (six to eight years).

The predominance of studies with a qualitative approach, carried out through interviews with pre-established questions, was observed. It should be noted that patients and health professionals participated in the majority of the interviews. The age group of the population that participated in the researches included youths and adults. However, the elderly population was excluded from the studies.

There were only five studies related to the practice of physical activities as a strategy of health care services for men. It was noticed that the majority of the studies analized the problematization of access of men to health services and to programs of health prevention for men.

DISCUSSION

The publications were related to "men's health", listing specific subjects such as the primary care that men should perform. Different health programs were explored in certain places for the development of men's health education. However, most of the studies highlighted the absence of men in health care services, raising the discussion about this problem.

In Brazil the National Policy of Comprehensive Healthcare to Men (PNAISH) is challenging, since the adherence of this population to health services is still low. Male invisibility is translated into concealment of demands and needs of men upon a gender perspective. There are infrastructure barriers in terms of physical space and training, as well as behavior, which explain the absence and/or invisibility of men in health services.[10,22]

This absence is due to factors such as use of alcohol and drugs, lack of time on the job, and lack of male professionals, taking into account that men feel more comfortable to consult with other men (one of the reasons reported by the respondents). It is worth noting that the sample of this study is predominantly young.[7,10,22]

The presence of female professionals in the healthcare team (mainly physicians and nurses) is another factor that contributes to non-adherence, since it hinders the male approach and the transmission of confidence on the part of these professionals.[15]

The men's culture is pointed out as another factor adding to non-adherence of men to health

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care measures and prevention services, which may be a reflection of the social role constructed for men, in which masculinity is tied to values or attributes such as strength, aggressiveness, competitiveness and sexuality, contributing to determine, for example, the morbidity and mortality profile of these subjects.[12,18]

A study carried out in Spain found out that the life expectancy of men is 78.5 years, six years less than that of women. It is known that the mortality rate from chronic diseases in people under 75 years of age is highly unfavorable to men and includes more mortality from diseases that occur mainly as a result of poor health habits.[18]

Emphasis is placed on the adoption of care and consultation protocols, in addition to training of professionals and/or of the accountability referral team, within the health system, so as to build a relationship of bond and being available to the opportunity of building such a link.[15,17,20]

It is noteworthy that clinical trials focused on men's health are scarce, especially when seeking to know the impacts of physical activity on the health of the male population. We found only one clustered randomized clinical trial regarding the health promotion intervention. It was found that in the world's population, 31% of adults are physically inactive and rates of physical inactivity are evident not only in developed countries, such as the United States, where 32% of adults are physically inactive, but also in developing countries such as South Africa, where mortality rates from noncommunicable diseases, particularly among men, have increased. It is recorded that in this country, 45% of adults are physically inactive.[14]

Despite the high prevalence of physical inactivity in the male population, the majority of clinical trials are aimed at young people or women, and few are specifically targeted at adult men.[9]

It is understood that discussions about strategies to promote the health of men should be reflected with the health team, which must be prepared to attend that population. The inclusion of content on men's health in the curriculum of health courses is important to train professionals prepared to assist the male public.

A study conducted with medical students and curriculum developers from Australian medical schools pointed out that respondents advocated the inclusion of this content and emphasized the need for implementation of the curriculum, noting that there is pressure for schools to incorporate new materials for a comprehensive curriculum covering men's health.[19]

It is believed that updating the curriculum would allow students to gain skills and knowledge in clinical practice, requiring a professional prepared to work directly with the medical school team and defend the course of men's health.

Physical activity is indicated as an ally for coping with musculoskeletal and bone diseases such as osteoporosis, which also affects the male population. The primary results of a study with men of school age, aged 19 years or older, with or without a diagnosis of osteoporosis, were low-trauma vertebral fracture rate, non-vertebral hip fracture rate, bone resistance index (BSI) and stress strain index (SSI), adherence to specific programs, and satisfaction with the program.[7] Another study showed that moderate-intensity physical activity was beneficial in reducing of men's arterial hypertension. It was verified that the practice of physical exercises for at least 180 min/week seemed to be a good strategy to discriminate the prevention of hypertension in adult males.[21]

It is observed that physical activity is a well-founded determinant of healthy aging and a potential target for health promotion interventions, being, therefore, important for a healthy life.[7,14,21,23-4]

It is pointed out that family health strategy programs have created mechanisms to increase the adherence of the male population to health care programs for and that lectures, visits and educational practices have been widely used in health care as guidelines for promotion of men's health. It is understood that the regular practice of physical activity is considered important for health and has represented a strategy for health promotion, contributing to the prevention and treatment of diseases and the well-being of the population.[11] The family is also a network of support that men have to access health services.[17]

It is important to create mechanisms aimed at greater care of men's health. Thus, physical activity, also associated with healthy eating and habits,[19] plays an important role as a preventive and protective factor of physical, psychological and sexual aspects.[10,16,22,25]

The advancement of technology has contributed to the creation of applications aimed at the health and well-being of people. In a study conducted with the male population less likely to seek health services and obtain information through apps, men of different ages, ethnicities and occupations said that an optimal health screening application should have functions to directly measure and evaluate their health status. It should be noted, however, that such an application should be reliable, should protect personal information, especially medical data, should contain updated information, and should be created by government or health care entities.[25]

The use of health applications become friendly due to elements intrinsic to this new technology, such as accessibility, mobility and the continuous

ability to transmit information, often in real time, in addition to bringing multimedia elements and geolocation. It is even perceived that some games that can be easily inserted into therapeutic and health care procedures are available.[8,26]

A few number of studies were found, which represents a limitation of this study, i.e., the scarcity in the literature. However, a strong point of this review was the link established between the articles found for the analysis of approach of physical activity directed to men in programs, constructing a critical relation with the difficulties encountered by the participants and the professionals. However, further studies with clinical trials need to be done to improve the strategies for adherence of men to physical activities in health programs.

CONCLUSION

A strategy for promotion of men's health was demonstrated by physical activity programs, but guidance on the importance of physical exercise by health professionals to the male population is necessary in medical consultations.

It is noted that technology has contributed to the creation of applications for mobile devices; in the health area, apps have gained the function of allies of health care and monitoring.

The problem of adherence to services of promotion of men's health in the cultural factor is reflected in the fact that the masculine culture makes this process difficult, as demonstrated by the qualitative studies that investigated the low adherence from the perspective of the male population and health professionals, as well as the monitoring of significant results regarding the health conditions of the men after the adoption of sports as a health strategy.

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