REVIEW

Role of nursing professionals in primary prevention of cardiovascular diseases: literature review

Rol de los profesionales de enfermería en prevención primaria de enfermedades cardiovasculares: revisión de literatura

Papel dos profissionais de enfermagem na prevenção primária de doenças cardiovasculares: revisão de literatura

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Abstract

Introduction: The role of the nursing field as an educator and placing greater emphasis on the prevention and control of cardiovascular disease are key to achieving interventions that address genetic, environmental and behavioral risk as contributing factors in the development and progression of cardiovascular disease. **Objective:** Describe the role of nursing professionals in primary prevention interventions for cardiovascular diseases in the adult population. **Methodology:** Literature review including 4 stages: search and selection, compilation and evaluation, eligibility criteria and synthesis. The search was performed in PubMed, Scielo and Lilacs. Inclusion criteria included articles published from 2011 to 2021, primary research, clinical trials, randomized controlled trial, nurse-led interventions, practice guidelines, protocols, systematic reviews and meta-analyses were excluded. In the end, 64 articles were selected and seven met the criteria. **Results:** Nursing professionals were identified as the main members included in cardiovascular care, who played a key role in promoting healthy lifestyles and reducing cardiovascular risk. Three categories emerged, i.e., interventions focused on lifestyle, education

and self-care, which included habit promotion, promotion and prevention, reduction of anthropometric, clinical and biochemical variables; in the end, only one intervention was guided by a nursing theory. **Conclusions:** The roles of nursing professionals within the first level of care interventions evidenced that cardiovascular health improves significantly from different approaches, i.e., lifestyle, education, and self-care.

Key words: Nurse, Nursing care, Primary Prevention., Cardiovascular diseases, Cardiovascular risk (DeCS).

Resumen

Introducción: El papel que cumple enfermería en su rol de educador y con mayor énfasis en la prevención y control de las enfermedades cardiovasculares son clave para lograr intervenciones que aborden el riesgo genético, ambiental y conductual por ser factores que contribuyen en el desarrollo y progresión. **Objetivo:** Describir el rol de los profesionales de enfermería en intervenciones de prevención primaria de las enfermedades cardiovasculares en población adulta. **Metodología:** Revisión de la literatura incluyendo 4 etapas: búsqueda y selección, recopilación y evaluación, criterios de elegibilidad y síntesis. La búsqueda fue en PubMed, Scielo y Lilacs. Los criterios de inclusión: artículos publicados del 2011 al 2021, investigación primaria, ensayos clínicos, ensayo controlado aleatorizado, intervenciones dirigidas por enfermeras, se excluyeron guías de práctica, protocolos, revisiones sistemáticas y metaanálisis, 64 artículos fueron seleccionados y siete cumplieron con los criterios. **Resultados:** Se identificó que los profesionales de enfermería fueron los principales miembros de la atención cardiovascular y desempeñaron un papel clave en la promoción del estilo de vida saludable y en la reducción del riesgo cardiovascular. Surgieron 3 categorías, las intervenciones enfocadas al estilo de vida, la educación y al autocuidado, que incluyeron promoción de hábitos, promoción y prevención, disminución de variables antropométricas, clínicas y bioquímicas, solo una intervención se guio por una teoría de enfermería. **Conclusiones:** Los roles de los profesionales de enfermería dentro de las intervenciones de primer nivel de atención, hacen evidente que la salud cardiovascular mejora significativamente desde los diferentes enfoques: Estilo de vida, educación y de autocuidado.

Palabras clave: Enfermera; Cuidado de enfermería; Prevención Primaria; Enfermedades cardiovasculares; Riesgo cardiovascular.

Abstrato

Introdução: A função da área de enfermagem como educadora e a maior ênfase na prevenção e no controle de doenças cardiovasculares são fundamentais para a realização de intervenções que abordem os riscos genéticos, ambientais e comportamentais como fatores que contribuem para o desenvolvimento e a progressão das doenças cardiovasculares. **Objetivo:** Descrever o papel dos profissionais de enfermagem nas intervenções de prevenção primária de doenças cardiovasculares na população adulta. **Metodologia:** Revisão de literatura incluindo 4 etapas: busca e seleção,

compilação e avaliação, critérios de elegibilidade e síntese. A pesquisa foi realizada no PubMed, Scielo e Lilacs. Os critérios de inclusão incluíram artigos publicados de 2011 a 2021, pesquisa primária, ensaios clínicos, ensaios clínicos randomizados e controlados, intervenções lideradas por enfermeiros, diretrizes de prática, protocolos, revisões sistemáticas e meta-análises foram excluídos. No final, 64 artigos foram selecionados e sete atenderam aos critérios. **Resultados:** Os profissionais de enfermagem foram identificados como os principais membros incluídos nos cuidados cardiovasculares, que desempenharam um papel fundamental na promoção de estilos de vida saudáveis e na redução do risco cardiovascular. Surgiram três categorias, ou seja, intervenções focadas no estilo de vida, educação e autocuidado, que incluíam promoção de hábitos, promoção e prevenção, redução de variáveis antropométricas, clínicas e bioquímicas; no final, apenas uma intervenção foi orientada por uma teoria de enfermagem. **Conclusões:** As funções dos profissionais de enfermagem dentro do primeiro nível de intervenções de cuidados evidenciaram que a saúde cardiovascular melhora significativamente com diferentes abordagens, ou seja, estilo de vida, educação e autocuidado.

Palavras-chave: Enfermeira, cuidados de enfermagem, prevenção primária, doenças cardiovasculares, risco cardiovascular.

Introduction

Cardiovascular diseases (CVD) are a group of disorders of the heart and blood vessels including coronary heart disease, cerebrovascular disease, peripheral arterial disease, among others [1]. CVD is the leading cause of death worldwide and it is estimated that 17.9 million people die each year [2]. In the Americas and the Caribbean, 4.3 million people die each year, representing 80% of all deaths, 35% of which occur in people under 70 years of age [3].

In Mexico, CVD is a priority public health problem [4]. According to figures from the Ministry of Health, in the year 2021, CVD was the leading cause of death, with 215,000 deaths, 121,000 due to heart disease and 94,000 related to type 2 diabetes (DM2), with a higher frequency in men aged 40 years and women aged 50 years. CVD mortality is a complex, multifactorial phenomenon and is related to risk factors [5] including non-modifiable ones such as age, sex, genetics and modifiable behavioral characteristics which are shown in the form of lifestyle such as smoking and alcohol consumption, decreased high-density lipoprotein cholesterol (HDL-c), elevated low-density

cholesterol (LDL-c), elevated total cholesterol, increased triglycerides, hyperglycemia, hypertension (HT), sedentary lifestyle and obesity [6,8].

Prevention of premature deaths can be implemented through primary prevention by identifying those at risk for CVD and ensuring that they receive appropriate treatment. Access to essential medicines and basic health technologies to treat noncommunicable diseases in all primary health care facilities is essential to provide treatment and counseling to everyone who needs it [9].

It is important to emphasize that identification, control, prevention and preventive actions for the development of CVD can be implemented through the reduction of risk factors and mortality, so that a comprehensive approach that includes individual and population-based health care interventions by nursing professionals can reduce the economic and mortality burden caused by CVD [10]. Reductions in mortality rates can be implemented through interventions from the first level of care; therefore, it is necessary for interventions to be multidisciplinary in order to improve the health of the population and reduce institutional expenses and resources in secondary prevention actions, which involve a higher cost at all levels [11].

Therefore, the question of the research was: What is the role of nursing professionals in primary prevention interventions for CVD in the adult population? This is fundamental to addressing the role of nurses in CVD prevention and control, as it allows for the development of independent, multidisciplinary interventions to reduce the burden of CVD. In this regard, the objective was to describe the role of nursing professionals in primary prevention interventions for CVD in the adult population.
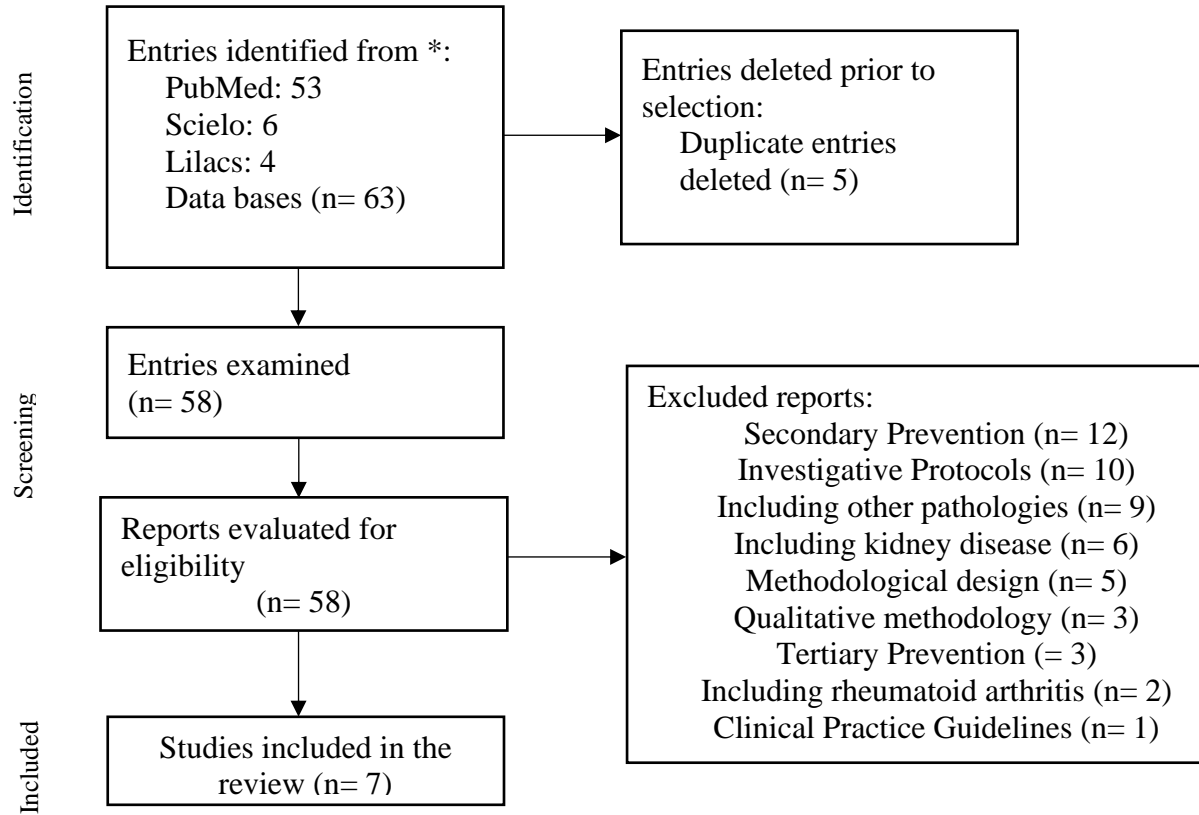
Methodology

A literature review carried out in March 2022, with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement, which includes four stages, i.e., search and

selection strategy, data collection and evaluation, eligibility criteria, and synthesis. The PICO question (problem or patient [P], intervention to be analyzed [I], comparison [C], and outcomes [O]) was: What is the role of nursing professionals in primary prevention interventions for CVD in the adult population?

The search and selection strategy involved searching for data in the databases: PubMed, Scielo and Lilacs using the MeSh by the terms which are nurse, primary prevention, cardiovascular diseases, nursing, nursing care, cardiovascular risk in combination with the Boolean operators AND and OR. The search was narrowed down according to the following inclusion criteria: articles published from 2011 to 2021, primary research, clinical trials, randomized controlled trial (RCT), interventions led by nursing professionals, in Spanish and English. Clinical practice guidelines, research protocols, systematic reviews and meta-analyses, those including other types of diseases such as DM2, renal failure, liver failure, among others, articles focused on secondary and tertiary prevention, and repeated articles were excluded (Figure 1).

Data matrix was used for the extraction and evaluation of the studies to facilitate the critical reading of the publications and the visualization of the data, which included title, authors, country, sample, objective, methodology, variables, population, duration, description of the intervention, type of prevention (primary, secondary and tertiary), results, conclusions and monitoring.

Figure 1: Articles included in the literature review, 2022.

Identification

Entries identified from *:
PubMed: 53
Scielo: 6
Lilacs: 4
Data bases (n= 63)

→ Entries deleted prior to selection:
Duplicate entries deleted (n= 5)

Screening

Entries examined
(n= 58)

↓

Reports evaluated for eligibility
(n= 58)

→ Excluded reports:
Secondary Prevention (n= 12)
Investigative Protocols (n= 10)
Including other pathologies (n= 9)
Including kidney disease (n= 6)
Methodological design (n= 5)
Qualitative methodology (n= 3)
Tertiary Prevention (= 3)
Including rheumatoid arthritis (n= 2)
Clinical Practice Guidelines (n= 1)

Included

Studies included in the review (n= 7)

Source: Own development

Sixty-four articles were identified from the databases in which interventions directed by nursing professionals in the primary prevention of CVD were conducted, previously determined by the aforementioned inclusion and exclusion criteria. The final sample was composed of seven articles identifying as main sociodemographic (age, sex), anthropometric (height, weight, BMI, waist circumference), clinical (systolic and diastolic blood pressure) and biochemical (glucose, total cholesterol, HDL-c, LDL-C) variables. From the literature analysis, three categories were generated, which together addressed the role of nursing professionals in primary prevention interventions aimed at lifestyle, education and self-care. For data synthesis, a critical reading of

each study was used and a summarized data matrix was made, including author, year, sample/duration, variables and conclusions.

Results

From the selected articles, the most used methodology was RCTs with 57% [14,15,17,18], followed by clinical trials with 43% [13,16,19]. All the articles were in English. The country where most articles were generated was Spain with 29% [14,18] (Table 1).

Regarding primary prevention interventions with a focus on lifestyle, it was identified that nursing professionals were the main members of cardiovascular care and played a key role in promoting healthy lifestyles and reducing cardiovascular risk (CVR) [12]. The aims of the publications focused on determining the effect of lifestyle intervention on CVR and risk factors [13,15]. However, the time of implementation of the interventions was diverse, ranging from 3 to 12 months; one of the publications had a 1-year monitoring [14]. Only one of the articles integrated a theoretical nursing reference using Pender's Health Promotion Model [13].

Implementation strategies focused on face-to-face educational sessions, delivery of educational brochures, telephone follow-up [13], physical activity sessions (stretching exercises, brisk walking and light running), cognitive-behavioral therapy (weight loss motivation), problem solving (self-efficacy), control of drug-nutrient interactions and monitoring of any imbalances or adverse reactions in response to physical activity and nutritional treatment [14], counseling on CVR cardiovascular risk, change of unhealthy behavior, decrease in risk factors and medication adjustments through motivational interviewing [15], (Table 1).

Table 1: Synthesis of primary prevention interventions for CVD in adult population, 2022 (n=7).

Author	Sample / Duration Type of intervention	Variables	Conclusions
Zheng et al., (2020). China	Lifestyle Sample: 173 Period: 3 months Intervention: Health Promotion Model.	CVR, self-efficacy, and health-promoting behavior implementation. RCV, autoeficacia e implementación de conductas que promueven la salud.	The lifestyle intervention program conducted by the nurse-led Health Promotion Model effectively improved self-efficacy and the health-promoting behavior implementation in patients with metabolic syndrome.
Ogedegbe et al., (2018) Africa	Educational Sample: 757 Period: 1 month Intervention: classified people in different stages of HT and administered different drugs to the control and intervention groups.	Change in SBP from baseline to 12 months. Secondary outcomes included lifestyle behaviors and SBP control.	Provision of health insurance coverage plus a nurse-led task-shifting strategy was associated with a greater reduction in SBP than provision of health insurance coverage alone among patients with uncontrolled HTN.
Fernández-Ruiz et al., (2018). Spain	Lifestyle. Sample: 74 Period: 12 months Four 40-minute physical activity sessions per week during the 12 months of the study.	Sociodemographic data: sex, age and marital status. Anthropometric data: BMI, CC, SBP, DBP. Biochemical data: glucose, HbA1c, TC, TGL, TGL, HDL-c, LDL-c, gamma glutamyltranspeptidase, alanine transaminase, aspartotransaminase, total bilirubin. Metabolic and cardiovascular comorbidity data: Methodology Framingham cohort study, National Cholesterol Education Program - Adult Treatment, Panel III.	A nurse-led interdisciplinary program improved the metabolic and cardiovascular health of participants while maintaining long-term effects. The evidence suggests an important role for the nurse practitioner as a liaison between the patient, different professionals, and the community.

Zhang et al., (2017). Singapore	Educational. Sample: 2184 Period: 1 month. The 4-week SBCHDP program was developed; it included a newly developed mobile application called Care4Heart, a 20-minute briefing session and a daily short message service (SMS).	Patient self-management of CVR	The positive effects of the SBCHDP program on improving awareness and knowledge of heart disease were partially confirmed. Due to the small sample size and short monitoring period, this study was underpowered to detect significant differences between the groups.
Smith et al., (2015). United States	Self-care. Sample: 198 Period: 12 months. Heart failure (HF) self-care, adherence to daily medications using the pill box organizer.	HF self-management skills, HF knowledge, HF-related discouragement, quality of life, and symptom severity and frequency scores.	The intervention was associated with improvements in HF self-care knowledge and behavioral skills in home care and HF care management. At the same time, improved self-care was associated with a reduction in HF-related hospitalizations.
Mora et al., (2014) Spain	Educational. Sample: 232 Period: 1 month Face to face course on generalities about CVR, HT, DM2, dyslipidemia, obesity and diet, physical exercise, tobacco and alcohol and therapeutic adherence.	Knowledge about CVR, The secondary variables were age, sex, CVR factors, lifestyle, visits to health centers, pharmaceutical consumption, and therapeutic adherence according to the Morisky Green test.	Effectiveness of the intervention applied by 3 primary prevention nurses to improve knowledge about cardiovascular health and some healthy lifestyle habits is demonstrated.

Tiessen et al., (2012). Netherlands	Lifestyle Sample: 201 Period: 12 months Patients received CVR counseling by nurses trained in motivational interviewing techniques.	Physical examination: weight, height and waist circumference. Medical history: use of medications, medical history and family history. Blood tests: glucose, lipids, thyroid, liver and kidney function. SCORE risk assessment: sex, age, smoking, SBP and TC, HDL, using a computer program (Consultwijzer).	In both groups the CVR decreased significantly after one year of treatment by nurse practitioners. No additional effect of basing proactive counseling on self-management was found, despite the additional time spent.

Source: Own development. CVR= Cardiovascular risk, SBP= Systolic blood pressure, HT= Hypertension, HF= Heart failure.

Main variables included estimation of CVR, age, total cholesterol, HDL-c, systolic blood pressure (SBP), use of antihypertensive medication, history of DM2, smoking, self-efficacy, and implementation of health-promoting behaviors [13]. Including sex, marital status, body mass index (BMI), waist circumference, glucose, glycosylated hemoglobin (HbA1), total cholesterol, triglycerides, low-density lipoprotein (LDL-c), glutamyltranspeptidase, alanine transaminase, aspartate transaminase, total bilirubin, metabolic and cardiovascular comorbidity data [14], thyroid, liver and kidney function [15].

Main results included a decrease in CVR [13,14], improvement in self-efficacy for nutrition, stress and health-promoting behaviors [14], progressive decrease in anthropometric (waist circumference and BMI), biochemical and clinical parameters [15]. Within the characteristics between the initial groups, no differences were detected between the groups (control and intervention), but a decrease in CVR was found in the intervention group (IG) of lifestyle, without significant group effect by time (3 months), however, self-efficacy for nutrition, the stress dimension and the total score of health-promoting behaviors, had significant improvements [13].

Regarding clinical, biochemical and anthropometric parameters of the IG group, these were assessed at the beginning, and 6 and 12 months later. The result was remission of the metabolic syndrome (48.1% in the short term and 83.3% in the medium term) which was maintained at one year follow-up, regarding the CVR, 100% of the subjects showed a low moderate risk at one year of the intervention [14]. In the interventions that measured CVR, the score decreased by 1.6% for the CG and 1.8% for the intervention group. Risk factors improved in both groups, the number of nurse visits was higher and longer lasting for the IG (4.9%) [15].

In the primary prevention interventions with a focus on education, it was seen that the objectives of the interventions were to evaluate the effectiveness and strategies of said interventions to improve knowledge of CVD [16,18]. The implementation period of the interventions ranged from one to twelve months and only one had a one-year monitoring [16].

Educational sessions included clinical decision-making advice, lifestyle recommendations, pharmacological treatment [16], information sessions (physiology of the heart, prevalence of heart disease, common signs and symptoms, modifiable and not modifiable risk factors, lifestyle information, management, causes and symptoms of stress), video clips, BMI calculation, caloric intake calculation, 10-year CVR prediction [17], course content, web content, and support material [18].

Interventions consisted of planned visits by nurses every three months, performed BP measurements on individuals, and provided educational materials on HTN, clinical decision support on CVD through algorithms and pharmacological treatment protocols provided by community health nurses [16]. Targeted programs were developed through mobile applications, consisting of 20-minute informative sessions with four learning modules delivered in one month that included: first module, the physiology of the heart, prevalence, most common signs and symptoms of CVD; second module, modifiable and non-modifiable cardiac risk factors; third

module, lifestyle information, diet patterns, optimal control regimens, exercise and smoking cessation; fourth module: stress management, causes, signs and symptoms. Daily text messages and relaxation demonstration videos were also sent through an app [17].

Likewise, face-to-face courses with a maximum of 15 patients in which general information on CVR, HT, DT2, dyslipidemias, obesity, diet, physical exercise, smoking, alcohol, and therapeutic adherence were taught. The course consisted of 2 face-to-face sessions of 2.5 hours during 4 weeks (total of 20 hours), a web page with didactic material, CVR calculators, clinical data recording forms to stimulate self-management of the disease, an agenda of events, and an e-mail address for contacting program coordinators [18].

Main parameters measured were: change in SBP from baseline to 12 months, lifestyle behaviors and BP control [16], self-management of CVR [17], knowledge about CVR, age, sex, CVR factors, lifestyle, health centers visits, medication intake, and therapeutic adherence [18].

Outcomes included reduction in SBP, among patients with uncontrolled HT, improvement in lifestyle, BP control at 12 months, and sustainability of SBP reduction at 24 months [16]. IG participants had better awareness that CHD is the second leading cause of death (p= 0.039), a better overall level of knowledge about CHD (p =0.002), and better blood cholesterol control behavior (p =0. 033) than CG participants [17] and a statistically significant improvement in overall CVR knowledge in IG (87.3 to 100 %) compared to CG (84.5 to 92.7 %), p <0.001 and an improvement in physical activity (IG: 71.2 to 83.1 % vs. CG: 72.6 to 78.2 %), p = 0.05. The number of total visits in primary care (medicine and nursing) will have more in the IG than in the CG [18].

Regarding primary prevention interventions with a focus on self-care, a publication was found with the objective of describing key learning strategies; the implementation time was 12 months [19]. The strategies focused on providing self-care skills according to the American College of Cardiology, where participants monitored heart failure (HF) symptoms, management and

establishment of self-care skills such as: adherence to treatment and education through primary prevention strategies [19].

Major study variables were: HF self-management skills, HF knowledge, HF-related discouragement, quality of life, symptom severity and frequency scores [19]. Major outcomes were an improvement in HF self-management and decreased hospital readmissions that were associated with the 12-month monitoring period. The intervention showed a 33% decrease in the rate of re-hospitalizations associated with the intervention during the 12-month monitoring period compared with the CG (p = 0.04). The total cost to implement five group appointments was $243.58 per patient [19].

In the role of nurses in primary prevention interventions, it was identified that the main role of nursing professionals was direction and leadership within the interventions [13,14,16,19], in addition to using nursing theories with a focus on health-promoting behaviors [13]. Similarly, the nursing professionals were responsible for conducting the measurements included [14], for working collaboratively with other health professionals for the development and assessment of the interventions, conducting the different implementation strategies, and conducting motivational interviews [15]. The nursing professionals participated in the development of the intervention contents [17], were responsible for teaching courses, and for the technical validation of the questionnaires that were applied in the interventions [19].

Discussion

Through this literature review, the role of nursing professionals in primary prevention interventions for CVD was identified, including the main characteristics, effectiveness, results and conclusions. The results make evident the deficient monitoring at the end of the interventions. Of the seven

articles reviewed, only one conducted monitoring at the end of the intervention, the decrease in CVR and health-promoting behaviors were maintained after one year [14].

Studies analyzed suggest that interventions based on lifestyle modification were more effective and sustainable at the first level of care, because they simultaneously addressed the measurement of clinical, biochemical, anthropometric and behavioral parameters, through physical activity, educational, pharmacological, nutritional and behavioral monitoring sessions, because the patient was provided with knowledge and information to be able to adopt a healthy lifestyle [13-15].

Involvement of the nursing professions in first-level interventions focused on the needs of patients creates the opportunity to improve knowledge of the phenomena, health problems and contributes to the identification of risks for the well-being of the population [20]. The positive results presented by the interventions implemented by nurses in the reduction of biochemical parameters and anthropometric measurements were an effective strategy for the control of CVR factors and the improvement of CVD [21]. In a study with 160 participants, individual interviews with anthropometric assessment, review of clinical histories and three group sessions with theory, practice and content of these diseases, as well as dietary recommendations, Mediterranean diet and exercise, reported that lifestyle interventions were necessary and effective in lifestyle modification [22].

Likewise, nursing interventions with an educational approach proved to be effective in reducing CVR factors [23] and raising the level of knowledge of patients [24] through clarification of doubts and understanding of the different topics provided by the nursing professionals [25]. Interventions that included strategies based on motivational interviewing brought about a change in the participants by increasing self-efficacy, which proved to be effective in the management of patients with chronic diseases [26]. In this regard, in a study conducted in 320 women where abdominal and hip perimeter, BMI, total body fat, visceral and trunk fat (body composition measures) and

adherence to the Mediterranean diet (MEDAS-14 questionnaire) were evaluated, the IG attended three interactive workshops on CVD prevention and the CG only received information by mail. They concluded that one year later, the differences between groups were significant in all parameters. In the between-group comparison, IG women maintained BMI and improved adherence to the Mediterranean diet. The CG increased BMI, abdominal and hip circumference and fat parameters (total body, visceral and trunk) [27].

Intervention strategies directed by nursing professionals for CVR reduction are useful in clinical practice when applied and evaluated on a regular basis, because they play an important role in promoting lifestyle modifications and the reduction of cardiovascular events [28]. The use of nursing theories that guide interventions toward the generation of healthy behaviors allows understanding human behaviors related to CVD and risk factors. Therefore, intervention protocols are required to provide solutions to the health problems of the population [29]. Interventions based on some theory had significant improvements in health-promoting behaviors [13].

The approach to which the interventions were directed, demonstrated results that impacted the health of individuals, especially those that performed an analysis of different clinical, biochemical and anthropometric variables, during different times of the intervention (1,6 and 12 months) with comparisons between CG and IG, as well as monitoring for effectiveness [14].

Among the interventions focused on education, there is evidence that the factors associated with a low level of knowledge and limited adherence to treatment are: inadequate knowledge of the disease process, non-compliance with the therapeutic regimen, insufficient social support and inadequate monitoring. It should be noted that, in patient education, nursing professionals must have the ability to assess individual needs and begin the education process based on the patient's prior level of perception of the disease [30]. As the burden of chronic diseases increases worldwide, there is a decrease in the quality of life of people, due to physical inactivity, overweight, obesity,

sedentary lifestyle and cardio metabolic diseases due to inadequate diets, stress and other factors [31].

Some of the main drawbacks include the limited evidence found in Latin America, so it is recommended that different databases be used in future reviews. The results of studies with different outcome variables and with heterogeneous samples in terms of age, gender and educational level of the patients should be compared. Most of the studies were published in English; no studies were found in Spanish, which may indicate the need for studies in Spanish-speaking countries.

Conclusions

The roles of nursing professionals within the first level of care interventions made it evident that cardiovascular health improved significantly from the different approaches (lifestyle, educational, and self-care). It is necessary for nursing professionals to perform interventions with a good level of evidence, allowing the evaluation of effectiveness, generating new knowledge and promoting professional advancement through the use of nursing theories and models that make a disciplinary contribution as a result.

Due to the increasing morbidity and mortality of CVD, challenges in lifestyle change, education, self-efficacy, and self-care, it demonstrates that providing effective interventions led by nursing professionals is critical to clinical practice because it demonstrates improvement in health-promoting behavior in people with CVD.

Emphasize the role that the individual should play in his or her health condition, as well as the role of nursing professionals in the interventions by adopting a healthy lifestyle, self-care, education, therapeutic adherence, among others, with the aim of preventing complications derived from inadequate management of the disease. The complex and interdisciplinary process should be taken

into account due to the multiple risk factors, so that interventions are a strategy that highlights the

importance of care that allows to identify, prioritize and focus on the reduction of CVD.

Conflict of interest

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