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INTEGRATIVE REVIEW ARTICLE

CLINICAL EVIDENCE FOR HYPERTENSIVE AND DIABETICS IN FAMILY HEALTH EVIDÊNCIAS CLÍNICAS PARA HIPERTENSOS E DIABÉTICOS NA SAÚDE DA FAMÍLIA EVIDENCIAS CLÍNICAS PARA HIPERTENSOS Y DIABÉTICOS EN LA SALUD DE LA FAMILIA

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ABSTRACT

Objective: to identify evidence attributed to hypertensive and diabetic users in the Family Health Strategy. **Method:** integrative review, carried out from November to December 2015, in the databases LILACS, SCOPUS, MEDLINE, CINAHL, in the virtual library SCIELO. The evaluation of the studies was done by reading the titles and abstracts selecting those who presented evidence of the hypertensive and / or diabetic users that attend the Family Health Strategy. The results were presented in table form and summaries. **Results:** 25 articles were selected that reported on user preferences, signs and symptoms of the disease, complications and factors associated with hypertension and diabetes. **Conclusion:** the 31 evidences related to hypertensive and / or diabetic patients attending the FHS are important for a better follow-up of this population, since the planning and implementation of Nursing care should be individualized and based on the knowledge of these clinical conditions and preferences. The provision of evidence-based care can further strengthen PHC as a gateway to the health system and is responsible for the prevention of diseases and health promotion. **Descriptors:** Hypertension; Diabetes Mellitus; Signals and symptoms; Nursing diagnosis; Primary Health Care; Family Health Strategy.

RESUMO

Objetivo: identificar evidências atribuídas aos usuários hipertensos e diabéticos na Estratégia Saúde da Família. **Método:** revisão integrativa, realizada de novembro a dezembro de 2015, nas bases de dados LILACS, SCOPUS, MEDLINE, CINAHL, na biblioteca virtual SCIELO. A avaliação dos estudos foi feita pela leitura dos títulos e resumos selecionando aqueles que apresentassem evidências dos usuários hipertensos e/ou diabéticos que frequentam a Estratégia Saúde da Família. Os resultados foram apresentados em forma de tabela e sínteses. **Resultados:** foram selecionados 25 artigos que relataram as preferências do usuário, os sinais e sintomas da doença, as complicações e fatores associados à hipertensão e ao diabetes. **Conclusão:** as 31 evidências relacionadas a usuários hipertensos e ou diabéticos que frequentam a ESF mostram-se importantes para um melhor acompanhamento dessa população, uma vez que o planejamento e a implementação do cuidado de Enfermagem devem ser individualizados e baseados no conhecimento dessas condições clínicas e preferências do usuário. A prestação do cuidado baseado nas evidências encontradas pode, ainda, fortalecer a APS enquanto porta de entrada do sistema de saúde e responsável pela prevenção de agravos e promoção da saúde. **Descritores:** Hipertensão; Diabetes Mellitus; Sinais e Sintomas; Diagnóstico de Enfermagem; Atenção Primária à Saúde; Estratégia Saúde da Família.

RESUMEN

Objetivo: identificar evidencias atribuidas a los usuarios hipertensos y diabéticos en la Estrategia Salud de la Familia. **Método:** revisión integrativa, realizada de noviembre a diciembre de 2015, en las bases de datos LILACS, SCOPUS, MEDLINE, CINAHL, en la biblioteca virtual SCIELO. La evaluación de los estudios fue hecha por la lectura de los títulos y resúmenes seleccionando aquellos que presentaran evidencias de los usuarios hipertensos y / o diabéticos que frecuentan la Estrategia Salud de la Familia. Los resultados se presentaron en forma de tabla y síntesis. **Resultados:** se seleccionaron 25 artículos que relataron las preferencias del usuario, los signos y síntomas de la enfermedad, las complicaciones y factores asociados a la hipertensión y la diabetes. **Conclusión:** las 31 evidencias relacionadas a usuarios hipertensos y / o diabéticos que frecuentan la ESF se muestran importantes para un mejor acompañamiento de esa población, una vez que la planificación y la implementación del cuidado de Enfermería deben ser individualizados y basados en el conocimiento de esas condiciones clínicas y, preferencias del usuario. La prestación del cuidado basado en las evidencias encontradas puede, además, fortalecer la APS como puerta de entrada del sistema de salud y responsable por la prevención de agravios y promoción de la salud. **Descriptores:** Hipertensión; Diabetes Mellitus; Signos y Síntomas; Diagnóstico de Enfermería; Atención Primaria de Salud; Estrategia De Salud Familiar.

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INTRODUCTION

It is verified that Nursing care is an important tool to legitimize the principles of the Unified Health System (UHS) and to guide the practice and objectives of the Family Health Strategy (FHS).¹

Therefore, the FHS proposes a new model of health care based on assistance in the promotion of quality of life.^{2,3} A strategy for the transformation of the health care model in Brazil is proposed, with the proposal of reorganization of basic health care, considering it as the guiding axis of the care model, a gateway to the health system, transforming the then-health-care system, with emphasis on cure through medication and individual care, for a model of collective health, centered on the promotion and treatment of diseases, with the incorporation of multi and interprofessional teams, among them, the nurse, for the development of actions aimed at the care in the family and in the community delimited by territory and population attached.²

It is noteworthy that the nurse, in the FHS, provides individual and collective care by developing nursing consultation actions in different life cycles. Particularly in this study, this care involves hypertensive and diabetic users, home visit, risk classification evaluation, host, monitoring and evaluation of the vaccination schedule, educational groups and epidemiological surveillance actions.⁴

The care for hypertensive and diabetic users is one of the priorities of the FHS, since these are the leading cause of death and hospitalizations in Brazil.⁵ According to the World Health Organization (WHO), there are 300 millions of diabetic individuals by 2025 requiring quality care from health services.⁶ In Brazil, the prevalence of DM is 7.6%, with a mortality rate of 4.67% in 2010, representing 60% of hospitalizations.⁷

Thus, in the case of SAH and DM as chronic diseases and important public health problems and that compromise the quality of life, a differentiated attention is required to health education and, in this context, is the nurse of the FHS, a this professional has close and regular contact with the user engaging in the learning process.⁷⁻⁸

The importance of the nurse in the PHC is highlighted in the international scene, since it has the possibility of operating, with creativity and autonomy, in all areas of the FHS, be it in health education, health promotion and disease prevention and rehabilitation. These actions mainly occur through the survey of situations and the

intervention systematized through a plan of care subsidized by the clinical reasoning and accuracy of the nurse.⁹

It is identified the situation survey from the clinical evaluation and the set of signs and symptoms that will serve as the basis for the establishment of a nursing diagnosis.¹⁰ According to the International Classification of Nursing Practice (CIPE) and the norm 18104: 2003 of the International Organization for Standardization, a nursing diagnosis is assigned to a user after the assessment of the nurse.¹¹ CIPE is a standardization of the language of nursing diagnoses, results and interventions that, integrated with the nurse's practice, subsidizes the documentation of nursing and the restructuring of clinical practice. In a study conducted in Brazil, Nursing professionals correlated the user's evidence with the diagnostic hypothesis, suggesting the importance of identifying the clinical picture of the users for the elaboration of the care plan.¹²

Thus, the evidence of hypertensive and diabetic users that may favor the control and monitoring of hypertension and DM in Primary Health Care is recognized, which may reduce the impact to Brazilian society in terms of morbidity and mortality, avoiding the appearance of complications and reducing the number of hospitalizations and mortality due to cardiovascular and metabolic diseases.¹³⁻⁴

OBJECTIVE

- To identify evidence attributed to hypertensive and diabetic users in the Family Health Strategy.

METHOD

It is an integrative review that allows the synthesis of knowledge about a certain subject. Existing gaps are identified and general conclusions on the subject are possible.^{15,16}

It is understood, by evidence, actual or affirmed facts used to support a decision. By using these evidences, the nurse will be able to have a critical thinking and make a more qualified decision reducing the possibility of errors.

In this study, evidence is considered as the set of signs and symptoms from clinical research and user preferences suggesting that their values, concerns and expectations are considered in the health-disease-care process and integrated with clinical decisions. The identification of signs, symptoms and preferences, together with the nurses' clinical ability to use them in the identification of the nursing diagnosis and intervention, will allow

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the implantation of a clinical practice that has, as object, the patient and the care and, the science.

As a methodological reference, Mendes and Galvão¹⁶ proposed the following steps: identification of the problem (elaboration of the guiding question); search in the literature and establishment of inclusion / exclusion criteria of the studies; definition of the information to be extracted from the revised works (objectives, methodology and main conclusions), as well as their analysis; the discussion and interpretation of results and, finally, the synthesis of knowledge.¹⁶

The guiding question of the research was elaborated: What are the clinical evidences of hypertensive and diabetic users who attend the Family Health Strategy ?. Electronic searches were started, from November to December 2015, in the LILACS (Latin American and Caribbean Literature in Health Sciences) databases; SCOPUS; MEDLINE (Online System of Search and Analysis of Medical Literature); CINAHL (Nursing Journal Databases); in the Scientific Electronic Library Online (SCIELO).

As inclusion criteria, articles published in the Portuguese, English and Spanish languages were used in the period between 2011-2015. Excluded were articles that did not answer the guiding question of the research.

As a search strategy, we used the cross-referencing in each database and / or data library with Boolean operators for the association of descriptors: hypertension AND signs and symptoms AND primary health care and hypertension AND diagnosis of nursing. We then identified 737 articles: nine in SCIELO; 46 in LILACS; 82 in SCOPUS; 588 in MEDLINE and 12 in CINAHL. The descriptors diabetes mellitus AND signs and symptoms AND primary

health care and diabetes AND nursing diagnosis were identified, identifying 943 articles: 32 in SCIELO; 11 in LILACS; 159 in SCOPUS; 725 in MEDLINE and 16 in CINAHL.

It is stated that the search for productions resulted, initially, in 1680 articles (737 related to hypertension and 943 related to diabetes). After evaluating the title of the articles, 323 were duplicated and removed, leaving 1357. The titles and abstracts were then read, selecting those that were close to the objective of the study and totaling 70 articles for reading in full.

After reading and re-reading the eligible articles, 45 were excluded because they did not address the evidence for hypertensive and diabetic users, 25 of whom approached the medications used and their complications, seven presented scales developed for the evaluation of specific nursing diagnoses and 13 treated of contexts other than FHS. Therefore, the final sample of this study consisted of 25 articles.

The articles were tabulated in the Microsoft Office Excel 2016 program with the following information: author, article title, database, objective, sample and results found. This approach allowed the organization of the data, synthesizing the information obtained from the primary sources and comparing them.

The levels of evidence were categorized and all articles (100%) were classified as level of evidence IV.¹⁸

The flow diagram of the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA)¹⁷ was used to describe this process of literature review to describe information in each step of the search, as can be seen in figure 1.

Figure 1. Flowchart, according to PRISMA, for the selection of articles found. Campinas (SP), Brazil, 2018.

The results were presented in a descriptive way and these were subdivided into two moments: analysis of the publications and the content of the articles.

RESULTS

The results of the research are available: in terms of language, 13 (52%) are in Portuguese; 10 (40%) in English and two (8%) in Spanish. In relation to the year of publication, 2012 was the year with the most publications (24%), followed by 2014 and 2011, with five each (20%); 2012, with four (16%); 2015, with three (12%) and 2013, with two (8%).

As to the database, nine (36%) were found in SCIELO. In SCOPUS and LILACS, six (24%) were found in each, three (12%) in CINAHL, one (4%) in MEDLINE.

The contents present in the sample are presented in figure 2, which includes the type of study, the signs and symptoms of the user in relation to the disease and its complications, user preferences and diseases and factors associated with hypertension and diabetes.

It is observed that, in relation to the research design, 20 (80%) are quantitative; three (12%), qualitative and two (8%) did not mention the methodological reference, but were identified as articles of reflection. Of these, nine (36%) are cross-sectional studies; two (8%), exploratory; two (8%), descriptive; two (8%), methodological; two (8%), case studies; one (4%), retrospective study; one (4%), integrative literature review; one (4%), prevalence study; one (4%), epidemiological study; one (4%), quasi-experimental and one (4%) are reports of experience.

As to the evidence, among the 25 articles, 18 (72%) reported the signs and symptoms of the disease; 15 (60%), user preferences; 12 (45%), signs and symptoms of complications and ten (40%), diseases and factors associated with hypertension and diabetes, according to table 2.

By excluding the repeated data, there were 31 literature evidences related to hypertensive and / or diabetic users that attend the Family Health Strategy.

Author	Type of study	Signs and Symptoms of the Disease	User Preferences	Signs and Symptoms of Complications	Associated diseases and factors
Moura DJM et al. ¹⁹	Case study	- High Blood Pressure	- Non adherence to treatment - Unknown disease		- Sedentary lifestyle - Overweight
Moura DJM et al. ²⁰	Case study	- Edema - Polyuria - Jurisdiction - Hyperglycemia	- Lack of adherence to the hyposodic diet - Little knowledge of the disease - Lack of family support	- Decreased tactile sensitivity - Injuries / Mycoses	- - Sedentary lifestyle - - Obesity - - Overweight
Ferrari RFR et al. ²¹	Analytical and exploratory study	- High Blood Pressure - Headache - Edema			
Bertoletti AR et al. ²²	Exploratory study		- Nonadherence to treatment		
Moura PC et al. ²³	Descriptive Study	- Polyuria - Jurisdiction - Polydipsia - Polyphagia - Weakness			
6Yang CW et al ²⁴	Cross-sectional study	- Blood glucose change		Microalbuminuria	
7Oliveira CJ et al. ²⁵	Methodological Study	- High Blood Pressure	Nonadherence to treatment		- Overweight
Levesque CM et al. ²⁶		- High Blood Pressure	Nonadherence to treatment		
Matsumoto PM ²⁷	Reflective		- Healthy eating	- Vision problems	
Mendes LC, Sousa VEC, Lopes MVO ²⁸	Experience Report		- Lack of family support	- Eye disease - Neuropathy	
11 Faria HTG et al ²⁹	Cross-sectional study		- Adherence to drug treatment - Adherence to physical activity - No adherence to the food plan		- - Dyslipidemias
11 Faria HTG et al ²⁹ Coelho ACM et al. ³⁰	Cross-sectional study	- Increased capillary glycemia - Increased glycated hemoglobin		- Foot injuries	
Galiano MAG et al ³¹	Prevalence study	- Increased glycated hemoglobin			- Dyslipidemia - Overweight - Obesity

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Chagas IA et al. ³²	Cross-sectional study	<div><div>- Increased blood glucose</div><div>- High Blood Pressure</div></div>	<div><div>- Lack of adherence to the food plan</div><div>- Non adherence to physical activity</div></div>	<div><div>- Retinopathy</div><div>- Feet problems</div><div>- Neuropathy</div><div>- Nephropathy</div></div>	<div><div>- Obesity</div><div>- Dyslipidemia</div><div>- Overweight</div></div>
Oliveira KCS, Zanetti ML. ³³	Cross-sectional study	Low understanding of the disease			
Nogueira LGF, Nóbrega MML. ³⁴	Cross-sectional study	<div><div>- Edema</div><div>- Hyperglycemia</div><div>- Hypoglycemia</div></div>	Low understanding of the disease	<div><div>- Nephropathy</div><div>- Amputation</div><div>- Lesions of the lower limbs</div><div>- Visual, tactile and painful changes</div></div>	
Franzen E et al. ³⁵	Methodological Study	<div><div>- Edema</div><div>- Unstable glycemia</div><div>- Hypoglycemia</div></div>	<div><div>- Unbalanced nutrition</div><div>- Poor knowledge</div></div>		
Mompoin W, Darnell DNP ³⁶	Cross-sectional study				
Santos ICRV et al ³⁷	Epidemiological study	Hyperglycemia		<div><div>- Ulcers</div><div>- Amputations</div></div>	
Kathy K et al. ³⁸	Almost experimental study	<div><div>- Hyperglycemia</div></div>		<div><div>- Infections and skin lesions</div></div>	
Silva LHA ³⁹	Retrospective study	<div><div>- Hyperglycemia</div></div>	<div><div>- Nutrição alterada</div></div>		<div><div>- Sedentary lifestyle</div><div>- Obesity</div><div>- Dyslipidemia</div></div>
Artilheiro MMVSA et al. ⁴⁰	Cross-sectional study				
Robertson C. ⁴¹	Literature revision	<div><div>- Hyperglycemia</div></div>	<div><div>- Non adherence to treatment</div></div>		<div><div>- Overweight</div><div>- Dyslipidemia</div></div>
Casey G. ⁴²	Not cited	<div><div>- Hyperglycemia</div><div>- Polyuria</div><div>- Polydipsia</div><div>- Polyphagia</div></div>		<div><div>- Retinopathy</div><div>- Neuropathy</div><div>- Nephropathy</div></div>	<div><div>- Dyslipidemia</div></div>
Winkelmann ER, Fontela PC. ⁴³	Descriptive study		<div><div>- Physical inactivity</div></div>	<div><div>- Visual changes</div></div>	<div><div>- Obesity</div></div>

Figure 2. Analysis of the articles according to the study design and the evidences found. Campinas (SP), Brazil, 2015.

DISCUSSION

It is stated that the control and monitoring of SAH and DM in PHC can reduce the impact to Brazilian society, in terms of morbidity and mortality, avoiding the appearance of complications, reducing the number of hospitalizations and mortality due to diseases cardiovascular diseases.^{13,14} Among the professionals who provide assistance to this population is the nurse whose essence of his work is care.

It should be emphasized that it is up to Nursing to provide quality care to the individual throughout his health-disease process.⁴⁴ In order for care to be adequate, there is a need to approximate nurses' practice and theoretical knowledge, avoiding the assistance of Nursing is only a repetition of doing without questioning its aims.^{2,44-5}

In this context, the importance of the nurses' practice is systematized, centered on the user and carried out in a planned manner. The identification of the evidence is the starting point for the preparation of the care plan.

Thus, blood pressure elevation was the most frequent among the signs of users with hypertension.^{19,21,25,28,31} According to the Brazilian Hypertension Guidelines, hypertension is defined as systolic BP values ≥ 140 mmHg and / or diastolic BP ≥ 90 mmHg. The identification of the elevation of the blood pressure, on three different occasions, is given to the user for the diagnosis of hypertension. The verification of blood pressure during the Nursing visit is of fundamental importance, since the users may be asymptomatic.⁴⁶ Headache was reported as one of the symptoms reported by these patients.²¹ One article indicates that hypertensive patients who had as a symptom of SAH have a more careful behavior with the control and treatment of the disease.⁴⁷

Lower limb edema was associated with other symptoms related to hypertension^{20,21,34} meaning complications due to the disease, be it renal damage or heart failure. Edema has also been identified as a sign of complication in users with DM with nephropathies.³⁴ Another complication, also associated with hypertension and DM, is albuminuria,²⁴ and its screening is a recommended procedure to prevent or delay further complications such as nephropathy.⁴⁸

It is reported that DM is often asymptomatic; however, when symptomatic, the classic symptoms are polyuria, polydipsia, polyphagia, and nocturia.^{20,23,42} Weight loss was not reported in the articles included in

the review, but it is part of this set of signs and symptoms.⁴⁸ Polyuria is a consequence of increased blood glucose, since blood with increased glucose causes a decrease in renal resorption and dehydration. This, in turn, has, as a compensatory mechanism, the release of the antidiuretic hormone and the increase of thirst or polydipsia.⁴² It is defined the nocturia as the increase of the nocturnal urinary frequency, also linked to the decrease of renal resorption.⁴⁶

It is mentioned that the above symptoms are not enough to classify the individual as diabetic. It is necessary that, in addition to these symptoms, there is a random blood glucose test > 200 mg / dl or fasting glucose > 126 mg / dl. This increase in blood glucose, hyperglycemia, is the main symptom for the diagnosis and evaluation of DM treatment.^{24,30,32,35,37,38-9,41-2}

Hyperglycemia, when uncontrolled, may be indicated to decrease or even impair vision. Therefore, it is necessary for nurses to evaluate whether the early detection of retinopathy is being performed in other levels of health care, since there are effective interventions.⁴⁸⁻⁹ In addition, there may be a decrease in tactile and painful sensitivity (neuropathies).^{20,28,32,34,42} A study was found that up to 50% of diabetic users have this type of alteration.⁴²

Neuropathies are shown to be the leading causes of lower extremity lesions, ulcerations and amputations, more specifically, the feet of diabetic users.³⁴ One study identified that these lesions can be reduced by 50% and 60% with appropriate prevention and management actions.⁵⁰ It was used among the strategies for the prevention of these complications, health education, an important role of nurses in PHC,⁴ however, one study identified that only 22% of users receive guidance on foot injuries and necessary care.⁸ Knowledge about the disease and its complications is an integral factor for the user to have adherence to the treatment.³³⁻⁵

Hypoglycemia was found as a symptom of diabetes.^{24,34-6} Means the inverse event of hyperglycemia and is characterized by glycemic levels < 70 mg / dl. Its symptoms are tremors, weakness, loss of consciousness, seizure and coma.³⁴

It is worth noting that another form of DM diagnosis is the laboratory examination of glycated hemoglobin, which, when greater than 6.5%, means that the individual is diabetic.^{30-1,48} The difficulty in keeping glycated hemoglobin at acceptable levels is related to the user's lifestyle.⁴⁸ In this

context, user preferences are an important interface of care.

It is indicated that the change in lifestyle is the basis for the treatment and prevention of the complications related to SAH and DM. These changes include adherence to treatment, healthy eating habits, the abandonment of sedentary lifestyle and smoking.^{19,20,22,25-7,29,32,34,40,43} In this sense, we can note health education, for user choices that collaborate with treatment, such as the focus of nursing care.⁷ One study demonstrated that diabetic users, assisted by the nurse, have a significant improvement in the maintenance of glycemic levels.⁷ Some guidelines are defined that should be directed to the needs of users and based on knowledge of clinical conditions.⁷

It should be emphasized that health education also contributes to the control of diseases and factors associated with hypertension and DM such as sedentarism, dyslipidemia, overweight and obesity^{19,20,25,29,31-2,39,41-3} which may be complicating for the individual.

CONCLUSION

The 31 evidences related to hypertensive and / or diabetic users attending the FHS are important for a better follow-up of this population, since the planning and implementation of Nursing care should be individualized and based on the knowledge of these clinical conditions and preferences of user.

It is believed that the production of reviews that identify evidence of the population served in the FHS can improve the quality of the assistance offered, as it provides subsidies for the adequate use of the resources offered. The provision of evidence-based care can also strengthen PHC as a gateway to the health system and is responsible for preventing health problems, promoting health, treating and rehabilitating users with hypertension and / or diabetes.

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