

CONCEPTUAL ANALYSIS OF SELF-MANAGEMENT
OF HYPERTENSIVE INDIVIDUALSAnice de Fátima Ahmad BALDUINO^a, Maria de Fátima MANTOVANI^b,
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ABSTRACT

This research aimed to analyze the concept of self-management of hypertensive individuals. Theoretical and documentary study based on Walker and Avant's conceptual analysis by means of the Scientific Electronic Library Brazil and the Medical Literature Analysis and Retrieval System Online in the Coordination for Higher Education Personnel Development (CAPES, in Portuguese) and the National Library of Medicine websites. Fourteen (14) articles and one (1) thesis were selected and reviewed, in Portuguese and English, in the period January 2007 to September 2012. Background: missing doctor's appointments, non-compliance to blood pressure control treatment, to recommendations to proper diet standards and stress. Attributes: blood pressure control and disease management. Consequences: home monitoring of blood pressure with control improvement, accomplishment of disease management, compliance and sharing of the creation process of self-management goals and caring activities by the interdisciplinary team through individualized actions. It was concluded that the self-management concept is a dynamic, active process which requires knowledge, attitude, discipline, determination, commitment, self-regulation, empowerment and self-efficiency in order to manage the disease and achieve healthy living.

Descriptors: Disease management. Hypertension. Chronic disease. Nursing.

RESUMO

Objetivou analisar conceito de autogestão do indivíduo hipertenso. Estudo teórico pautado na análise conceitual Walker e Avant mediante as bases de dados Scientific Electronic Library Brazil e Medical Literature Analysis and Retrieval System Online. Foram selecionados e analisados 14 artigos e 1 tese, em português e inglês, no recorte temporal de janeiro/2007 a setembro/2012. Antecedentes: ausência à consulta médica, falta de adesão ao tratamento do controle da pressão arterial, recomendações do padrão dietético adequado e estresse. Atributos: controle da pressão arterial e gestão da doença. Consequências: monitorização da pressão arterial domiciliar com melhora do controle, realização de gestão da doença, aceitação e compartilhamento no processo criação de metas de autogestão e atividades de cuidados pela equipe interdisciplinar mediante ações individualizadas. Concluiu-se que o conceito de autogestão é um processo dinâmico e ativo, requerendo conhecimento, atitude, disciplina, determinação, comprometimento, autorregulação, empoderamento e autoeficácia, a fim de gerir a doença para o alcance de um viver saudável.

Descritores: Gerenciamento clínico. Hipertensão. Doença crônica. Enfermagem.

Título: Análise conceitual de autogestão do indivíduo hipertenso.

RESUMEN

Desarrollar análisis del concepto de autogestión relacionado a la hipertensión. Estudio teórico pautado en el análisis conceptual Walker y Avant a través de la búsqueda en las bases de datos Scientific Electronic Library Brasil y Medical Literature Analysis and Retrieval System Online de la Coordinación de Perfeccionamiento de Personal de Nivel Superior y la National Library of Medicine. Fueron seleccionados y analizados 14 artículos y 1 tesis, portugués e inglés, la integración, recorte temporal enero/2007 a septiembre/2012. Antecedentes, no compareciendo a la cita con el médico, la falta de adhesión al tratamiento, del control de la presión arterial, de las recomendaciones del padrón dietético adecuado y estrés. Consecuentes, monitorización de la presión arterial domiciliar con mejoría del control, realización de la gestión de la enfermedad, aceptación y el compartir en el proceso de creación de metas de la autogestión y actividades de cuidados por el equipo interdisciplinar mediante acciones individualizadas. Se concluye que el concepto de autogestión es un proceso dinámico y activo lo que requiere conocimiento, actitud, disciplina, determinación, comprometimiento, autorregulación, empoderamiento, y autoeficacia, con el objetivo de manejar la enfermedad para el alcance de vivir de manera saludable.

Descriptores: Manejo de la enfermedad. Hipertensión. Enfermedad crónica. Enfermería.

Título: Análisis conceptual de autogestión del individuo hipertenso.

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INTRODUCTION

The concept of self-management was used for the first time in the mid-60s with the purpose of highlighting the active participation of patients in their treatment, in order to minimize the impact of chronic disease in physical health status and functioning, allowing individuals to cope with the effects of disease. Also, it was described as a collaborative activity between the patient and the health professional⁽¹⁾.

Self-management activities are usually performed by the individuals and planned together with the healthcare system, especially in Healthcare Units and Outpatient Units. Such activities include managing symptoms, treating health conditions, face intrinsic physical and psychological conditions, aiming to produce changes in lifestyle and in coping with chronic conditions⁽¹⁾. Therefore, it is essential that nurses strive to understand such conditions in order to develop strategies to face hypertension⁽²⁾.

In order to learn about self-management individuals need an education program that meets their specific needs, as well as counseling from health care professionals regarding healthy lifestyle changes⁽³⁾, such as in hypertensive individuals.

Therefore, various medications and health-related behaviors were identified in studies intended to reduce pressure levels. However, most patients do not adhere to the prescribed regimen and find it hard to adopt and maintain a healthy lifestyle⁽⁴⁾.

It is known that hypertension is a major risk factor for cardiovascular diseases, causing premature morbidity and mortality, because more than two thirds of patients with high blood pressure, in the United States, show poor blood pressure control rates⁽⁴⁾. In Brazil, coronary heart disease, cerebrovascular diseases and heart failure represent the main cause of morbimortality, and hypertension being considered a major risk factor for such disorders. Thus, besides pharmacological treatment, the control of risk factors is crucial for the control of hypertension⁽⁵⁾. Also, health professionals should be aware of how hypertensive individuals self-manage their care.

Therefore, it is justifiable that an analysis of the concept of self-management of hypertensive individuals is carried out to clarify the referred process, in order to provide a greater understanding of the choices made by individuals regarding their illness and treatment.

Therefore, the purpose of this study was to analyze the concept of self-management of hypertensive individuals.

MATERIALS AND METHOD

A theoretical study based on *Walker and Avant's*⁽⁶⁾ conceptual analysis was conducted, according to five of the eight steps of the analysis, as follows: selection of the concept, purpose of analysis, definition of attributes, backgrounds and consequences. We believe that these steps meet the objective proposed for this study.

Thus, the referred model widely used on studies, particularly in the field of nursing. It is defined as a methodology that is adopted when the concepts require a deeper clarification. To explain one concept the research uses eight steps, as follows: selection of concepts; determination of the purpose of the analysis; of the possible uses of the concept; determination of defining attributes; case model; borderline cases; background and consequences and definition of empirical references⁽⁶⁾.

Inclusion criteria for the composition of the corpus used in the study were: studies whose title or body of the text contained the expression "self-management related to hypertensive individuals and with risk factor" in Portuguese or in English, consisting of full, free and available texts, involving participants assisted in basic health units, hospitals or at home. Articles containing the expression "self-management and risk factor not related to hypertension, incomplete, in Spanish and not available were excluded from this study. Such exclusion was due to the definition of self-management and self-care used in the controlled vocabulary *Medical Subject Headings (MeSH)*.

1,119 articles were found through an website at the portal of the Coordination of Improvement of Higher Education Personnel (CAPES), journals and the *National Library of Medicine (NLM)*, in databases *Scientific Electronic Library Online (SciELO) Brazil* and *PubMed/MEDLINE*. Search results were refined by title and year of publication: 22 studies in Portuguese and 225 in English. Based on the reading of publication titles and abstracts, we selected 14 articles and 01 thesis, 02 of them in Portuguese and 13 in English, totaling 15 scientific productions. All articles were published from September 2007 to September 2012.

In the controlled vocabulary *Medical Subject Headings (MeSH)* and *PubMed/MEDLINE*, we searched the meaning of the word *self care* and the searchable entry words for the term. In this navigation file, the definition of *self care* means performance of activities or tasks by health professionals who care for patients. The concept includes care for oneself or family members was introduced in this file in 1981. And the entry terms were: *self care* (autocuidado); *self-management* (autogestão). Thus, we used descriptors hipertensão/autogestão com booleanos “é”; “contém”; hipertensão/cuidado de si com booleanos “é”; “contém”, hipertensão/autocuidado com booleanos “é”; “contém” in the database *SciElo Brasil*; *self-management/hypertension* com booleanos “and” in the databases *PubMed/MEDLINE*. In this database only *self-management* was used because it allowed the entry word *self care*, as a synonym.

After the selection of the 15 scientific productions we read the full texts in order to determine the defining attributes and the identification of the concept of self-management of hypertensive individuals.

The following questions were used to find the attributes in the studies: *What is the definition of the concept of self-management of hypertensive indi-*

viduals? What are the particularities of the analyzed concept? Thus, for the identification of the background the following question was posed: *Which events contribute to the proximity and the existence of the analyzed concept?* Finally, in order to identify the consequences associated to the concept, the following question was posed: *What resulted from the application of the analyzed concept?*

RESULT AND DISCUSSION

Conceptual analysis allowed to realize that when it comes to self-management in health, the word “self-management” is more often used in the discipline of Medicine^(3-4,7-8,10,12-16,19). In the area of Nursing^(11,18), especially in Brazil, the term self-care is used in the searched databases. Regarding the place where the word came to be used by health professionals, it was found to be in Basic Health Units and Outpatient Units. The particularities of the concept of self-management such as background, events or developments that occurred before self-management were considered attributes, and the consequences were the effects of self-management.

The background, attributes and consequences selected from the conceptual analysis by *Walker* and *Avant*⁽⁶⁾ are shown.

Background	Attributes	Consequences
<ul style="list-style-type: none"> • Irregular or absent medical monitoring • Lack of adherence to treatment • Lack of blood pressure monitoring • Lack of adherence to diet Smoking • Alcohol intake • Lack of control of body weight • Lack of physical activity Stress 	<ul style="list-style-type: none"> • Blood pressure control • Disease management 	<ul style="list-style-type: none"> • Receives educational intervention • Incorporates innovations in self-management practices • Accepts and shares the process of creation of self-management goals and care activities/strategies proposed by the team • Knows, controls blood pressure and manages the disease • Makes decision regarding the management of treatment and care • Provides potential benefits regarding the management of disease and blood pressure. • Monitors blood pressure at home, through awareness of hypertension and altitude

Source: Authors’s data (2012)

Chart 1 - Background, attributes and consequences of self-management of hypertensive individuals.

Background of self-management of hypertension

Given the background shown in chart 1, related to self-management of hypertension, it can be seen that, despite the efforts of the health care team, in clinical practice, many patients *do not adhere to the prescribed medication regimen, do not follow the recommendations of physical activities and practices associated to weight control, low sodium diet rich in vegetables and fruits, and to not quit smoking, nor stop drinking alcohol*^(3,13-15; 19). Consequently, they find it hard to successfully change their lifestyle behaviors, by means of blood pressure control^(4,7-9). Also, they *do not attend medical appointments, do not make use of anti-hypertensive medication and get stressed*. This stress is related to high blood pressure, without causal relationship⁽⁹⁾.

In the self-management of hypertensive individuals, it became clear that individuals must be aware of their behavior towards their health status, in order to assess potential damage. There are four essential components of self-management: *healthy lifestyle, treatment of other minor illnesses, management of chronic conditions and care*⁽¹⁰⁾. Self-management concerns the behavior of hypertensive individuals learned within a context of various social differences, knowledge and beliefs, particularly related to blood pressure control⁽¹¹⁾.

Attributes of self-management of hypertensive individuals

Blood pressure control and management of disease are included in the identification of the attributes in the listed databases. It should be stressed that self-monitoring significantly reduces high blood pressure associated to antihypertensive therapy⁽¹²⁻¹³⁾. The use of automated sphygmomanometer, considered to be accurate and easy to use, makes it possible for patients to measure their blood pressure, and their involvement will provide self-management of the disease, generating health benefits⁽¹²⁾.

Hypertensive individuals acquire significant control over decisions and actions that affect their health, by means of empowering, with the help of tele-monitoring or health professionals^(4,10,12,14). Also, self-efficacy allows the individuals to raise their motivation, in order to maintain self-management behaviors^(7,15).

Self-management of hypertensive patients by telephone related to lifestyle behavior and blood pressure monitoring combined lead to a significant decrease in blood pressure compared to the results obtained with regular care^(4,7). It is known that monitoring of blood pressure at home combined with nurse-assisted behavioral intervention, by telephone, has improved blood pressure control compared to the conventional treatment⁽¹⁶⁾. Likewise, for professionals and hypertensive individuals, appointment scheduling by telephone and website facilitates and improves health care assistance⁽¹⁷⁾.

The training of hypertensive individuals to read and record systolic and diastolic pressure rates, as well as the maintenance of a channel of support to counseling is crucial for remote monitoring of blood pressure. This ensures that teams of health professionals consider the strategies for care and make their recommendations, making patient self-management possible⁽¹²⁾.

Self-monitoring is a useful complement for care, while self-management of blood pressure by hypertensive individuals is monitored by health professionals with the aid of *appointment-reminder Systems (RCTs)*, issuing warnings of individuals who have different systolic and diastolic blood pressure levels⁽¹³⁾. Besides, there are other technologies such as *Global Positioning System (GPs)* to monitor blood pressure readings, preventing complications⁽¹⁴⁾. Another action is the use of scales to measure knowledge and the strategy/activity of care of hypertensive patients, since they have acceptable psychometric properties⁽⁹⁾.

Consequences of self-management of hypertensive individuals

One of the main consequences of self-management found in the analyzed studies concerns the educational interventions for the individual, which are preventive and educational. Hypertensive individuals need monitoring from the interdisciplinary team to observe and understand their behavior towards high blood pressure and health care strategies⁽¹¹⁾. This is a promising way to improve the control of high blood pressure, and, as a result, improve the delivery of care^(3,13).

Therefore, patients who obtain information on how to quit smoking, control weight, regular physical activity, proper nutrition, sodium reduc-

tion and on seeking monitoring of health professionals demonstrate adherence to the recommendations of these professionals, which will change their lifestyles⁽¹⁸⁾.

Health professionals should change their clinical practice, particularly regarding advice. Coercitive health education does not take into account the individuals in their environment, never addresses their knowledge and practices and never understands the patients and their families⁽¹¹⁾.

Health professionals should devote more time and support to the process of delivery of care to hypertensive patients in order to improve the efficiency of self-management of lifestyle behaviors. The perception of high risk and low self-efficacy may reduce the motivation of the patient to try or maintain self-management behaviors⁽¹⁵⁾.

Advice from health professionals regarding the adoption of healthy behaviors and self-management of the disease lead to a healthy lifestyle. The advisory role of the physician (health professionals, our emphasis), depending on the patient, regarding lifestyle changes, favors behavioral changes⁽⁹⁾.

Thus, there are individuals who take drugs for a long period of time and require individualized educational actions aimed to provide explanations on the drugs prescribed and to clarify doubts. This intervention may decrease the anxiety of hypertensive individuals and provide skills for self-management of the disease and health care strategies⁽¹⁸⁾.

One consequence is *incorporating practical innovations* by means of intervention of behavioral self-management administered by a nurse, by telephone. The patient records and monitors blood pressure at home^(4,7). There is also adherence to the standard *Dietary Approaches to Stop Hypertension (DASH)*, an intervention of telephonic behavioral self-management. It concerns weight loss, reduction of sodium, regular physical activity of moderate intensity and moderation in alcohol consumption, which are adapted to the individuals according to their needs⁽⁷⁾.

Likewise, thanks to the practical innovations, the health professional may assess the risk of hypertension, memory, literacy rate, social support, and the relationships of patients with their caregiver, as well as side effects of the medications for hypertension⁽⁷⁾. The innovations in management practices facilitate the use of institutional mechanisms of monitoring of hypertensive individuals⁽¹⁷⁾.

Another innovation is related to the health care strategies and adherence to treatment by means of a scale called *Hypertension Self Care Activity Level Effects (H-SCALE)*, which measures behavioral activities recommended for an effective self-management of hypertension⁽⁸⁾. There is also another innovation tool called *BP Knowledge Scale and BP Self Care Scale* that allows to investigate the behavioral practices required for the prevention and control of high blood pressure. Besides, it makes it possible to assess stress reduction, perception of the need for medical care and of the use of antihypertensive medication⁽¹¹⁾.

Regarding the *acceptance and sharing of self-management and health care strategies*, the professionals advise hypertensive patients to set goals for self-management in a collaborative care approach, involving the establishment of plans/goals focused on the activation and maintenance of some health care behaviors, such as the understanding of the risks associated to hypertension and the intention to control the disease⁽¹⁵⁾.

It is recommended that the patient perform a care strategy. Self-directed efforts are needed to control hypertension, but the individuals need assistance and collaboration to define and improve their active efforts, and interventions should focus on patients and their health care providers⁽⁹⁾.

Thus, support self-management assists in the delivery of care to chronic patients because it is feasible and identifies gaps in medical care. Support in self-management improves results, allowing patients to support symptoms and treatment strategies. It can be seen that support self-management is separated from other patient-centered health care measures, though it is an important foundation of patient discharge. It is recommended that the multidisciplinary health care team monitors and encourages efficient care strategies, associated with conventional treatment, for this *benefits the patient and the management* of the program. Thus, it becomes clear that the patient should get involved in the management of the disease, knowledge and control of high blood pressure^(10,19).

Regarding changes in the lifestyle of the hypertensive individual by means of education and counseling, an interdisciplinary team approach is necessary. This team should observe and understand the views of patients about hypertension, considering beliefs, values and living environments,

because they interfere with their attitudes and choices. The counseling given to individuals with hypertension provide them with knowledge of the disease process. However, care practices are not always performed, and, thus, disease control fails. It should be emphasized the difficulties involved in the changes in habits and strategies for behavioral factors, because they are part of a social construction and are influenced by the environment in which individuals live^(3,11).

Thus, as a consequence, *decision making* regarding treatment management was observed, which contributes to greater inclusion of patients in health care strategies⁽¹⁷⁾. So, the empowering of individuals becomes a process through which they acquire control over their health-related decisions and actions, e.g. the hypertensive individual self-monitors blood pressure, controls health and seeks help from health care professionals, wherever required⁽¹⁴⁾.

Finally, *blood pressure monitoring at home* by means of knowledge of hypertension and changes in attitude that improve blood pressure control. These interventions are simple and pragmatic, but should be widely used⁽¹⁴⁾.

CONCLUSION

Conceptual analysis of self-management of hypertensive individuals based on *Walker* and *Avant* has made it possible to understand their attributes, background and consequences, at a given time period, and on the searched databases. Currently, this topic is of increasing importance in research, teaching and practice of care of health professionals.

Nevertheless, there are problems of understanding, because according to the studies surveyed, it has been observed that in English literature *self-management* is also associated to the words self-monitoring, self-care and support self-management, and in the Brazilian literature the word self-management is close to the word self-care. This creates problems for the use of these terms in some health practices. Therefore, there is divergence in the concept self-management of hypertensive individual regarding its employment.

Similarly, it can be seen that the identified attributes were blood pressure control and self-management of disease, and the background were irregular or no medical monitoring lack of adher-

ence to diet, smoking, alcohol intake, lack of control of body weight, lack of physical activity and stress.

One consequence of self-management of hypertensive individuals is the active engagement in home monitoring of blood pressure, leading to better control and management of the disease. Also, another consequence is the acceptance and sharing of the process of creation of self-management goals and care activities/strategies proposed by the interdisciplinary team, by means of individualized actions aimed to educate hypertensive individuals, so that they are able to recognize, understand and become aware of the healthy lifestyle to be adopted and of the management of their illness.

So, based on the analyzed publications, it is concluded that self-management can be defined as a dynamic and active process, which requires knowledge, attitude, discipline, determination, commitment, self-regulation, empowering and self-efficiency, in order to manage the disease and achieve a healthy lifestyle.

An interdisciplinary team with knowledge of hypertension and management and that devotes quality time to monitor is needed to encourage and support self-management, because it should understand the individuals and their families in what concerns their cultural, social, educational, emotional aspects, as well as beliefs and values. However, support monitoring strategies are performed by means of home monitoring of blood pressure associated to behavioral educational intervention, remote monitoring of blood pressure and notices sent by the latest technology such as *appointment-reminder Systems (RCTs)*⁽¹³⁾ and *Global Positioning System (GPs)*⁽¹⁴⁾.

Other databases should be searched and all steps of the conceptual analysis model should be considered, because the concept is being adopted in the health care area, particularly in the care of chronically ill patients.

The limitations of this study, conceptual analysis of self-management of hypertensive individuals concern the use of two databases such as *SciElo* Brasil and *PubMed/MEDLINE*, which made it difficult to further develop this topic.

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