

Adherence of Hypertensive Clients: A Concept Analysis

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ABSTRACT

Objective: The purpose of this study is to clarify the concept of adherence of hypertensive clients.

Method: Concept analysis proposed by Walker and Avant was applied and searching strategies were done from ProQuest, CINAHL, Scopus and Google Scholar published from 1999 to 2021. Attributes and cases (model, borderline, and contradiction) were identified to clarify the concept.

Results: The results of this concept analysis show that adherence to self-care is a complex concept. This involves physical, psychological, social, cultural, and other aspects that are closely related to human resources, both internal and external for each individual. However, the terminology of adherence is closely related to the self-care of hypertensive patients.

Conclusion: The study clarified self-care adherence and offered defining attributes; adherence recommendations, perceived benefits and benefits of adherence, realization, and acceptance of current conditions, and ability to perform optimal self-care. Case, borderline, and contradiction models are provided to explain this concept. Antecedents, consequences, and empirical references have also been described. Topics related to self-care adherence must be further explored to advance the nursing practice in managing the hypertensive client.

Keywords

Adherence, Concept analysis, Hypertension, Self-care management.

Introduction

Hypertension is a global health problem, that often does not show symptoms and is considered a “*silent killer*” [1-3]. Since 2014, hypertension has attacked 22% of the world’s population [4]. According to the American Heart Association (AHA), 76.4 million adults in America suffer from hypertension [5]. In Southeast Asia, the incidence of hypertension reaches 36% [6]. In Indonesia, hypertension has increased, in 2013 from 25.8% to 34.1% in 2018 [7]. More than 80% of hypertensive patients do not adhere to self-care, especially in terms of regulating diet [8,9].

To minimize the incidence of hypertension, patients should carry out a healthy lifestyle regularly including diet (low salt, low-fat diet), relaxation (slow deep breathing), and perform adequate physical activity [10,11]. The main obstacle was non-compliance in carrying out routine therapy programs and a healthy lifestyle [12,13].

Although literature cites some factors affecting self-care adherence among hypertensive clients, still, attributes that affect this concept is not clearly defined. Hence, this analysis aims to clarify the concept of self-care adherence in hypertensive patients. This is useful for developing theories about patient adherence in overcoming diseases that require long-term therapy to find the right self-care model for a hypertension patient.

Purpose

The purpose of this paper is to clarify the concept of adherence of hypertensive clients.

Method

Concept analysis was used as the approach proposed by Walker and Avant to determine the antecedent, attributes, and consequences of self-care adherence among hypertensive clients. Concept analysis is an approach that clarifies the meaning of terms and defines the terms so that writers and readers share a common language [14]. Articles were obtained from ProQuest, CINAHL, Scopus and Google Scholar published from 1999 to 2021 using the keywords "self-care adherence" and "self-care management". Additional information was added related to self-care compliance was obtained from a dictionary, textbook, and relevant website pages. The concept of compliance is identified which is supported by attributes and cases (model, borderline, and contradiction) are identified to clarify the concept of compliance. There are seven stages in concept analysis, namely: conducting concept selection; determining the purpose of the analysis; identification of all concepts found; defining attribute definitions; case model construction, borderline and contrary case construction; identification of antecedents and consequences; and definition of the empirical referent [14].

Results

Clarification of Adherence Concepts

The definition of adherence has been collected from various sources which can be seen in the following.

Table 1: Definition of Self-Care Adherence for Hypertensive Clients.

Source	Definition
(Nascimento 2019) [15]	Adherence is defined as a circumstance in which a person follows a rule that is related to the company's behavior and adherence to its rules.
(Kingsbury 1997) [16]	Adherence is a state in which a person's actions are consistent with the rule of society and related regulations. Adherence is a state in which a part of the society submits to and obeys a set of rules (law). Adherence refers to obeying a delineated specification, norm, or law is sued by a reputable institution or organization in a certain field.
(Chaplin 2006) [17]	Adherence is a state in which a person readily submits and succumbs to others' expectations or wishes; able to give, quit, surrender; make a genuine goal for compliance with others' expectations or wishes.
KBBI, 2020	To be obedient implies following commands, following regulations, and being disciplined. Adherence is being obedient, docile, and submissive to lessons and laws. Adherence is a patient's positive behavior in reaching therapy goals. Obedience is a type of human behavior in which people follow the rules, procedures, and discipline that have been established.
Cambridge Dictionary	Adherence is a condition where a person is far to willing to do what others want.
Lutfey & Wishner (1999)	Compliance is a degree of behavior that demonstrates a patient's willingness to obey or follow procedures or medical professional recommendations.
Horne (2006)	Compliance refers to the patient's willingness to take the medication as prescribed by the physician.

Definition of Attributes Characteristics of Adherence Concept

Based on the above definition, the following adherence attributes can be determined: 1) A condition to be able to adapt to the rules; 2) An action performed by the patient; 3) Discipline, obey, be loyal, succumb, and submit to the rules; and 4) Following or obeying something that is ordered or suggested.

Operational Definition of Compliance

Based on these attributes, an operational definition of adherence is drawn up. Adherence is the ability to make decisions to be obedient, and loyal with our relentless attitude so that they can follow or comply with all treatment rules, medications and recommendations or suggestions based on abilities that are also related to time, opportunity, and finance and motivation both internally and externally.

Construction of the Case Model and Various Other Models in the Context of the Adherence Concept

Case Model

A case model is an example of using a concept that demonstrates all the attributes that have been defined. This can be obtained from real experience, literature studies, or constructed by the author [14].

Mrs. BY, 45 years old, has a history of left chest pain, radiating to the left arm. Pain on a scale of 7-9, feels like I just want to die. BP 150/90 mmHg, pulse 96 beats/minute, RR 22 beats/minute. SR ECG. The patient said that he had suffered from hypertension since 5 years ago. Routine control regularly. The patient received Amlodipine 5 mg (taken at night), isosorbide dinitrate (if chest

pain), and several other drugs. Patients set cellphone alarms as reminders to take medicine, and always according to doctor and nurse advice. The patient manages a lifestyle with low salt and fat diet. Regularly participate in hypertension exercise facilitated by the public health center. The patient said that he had to be able to be at the ego so that he could break himself with delicious and ready-to-eat food. To survive, I have to be disciplined about eating, diligently exercising, taking regular control, and taking medication according to a predetermined schedule.

All attributes are already found in the case. This case shows that adherence has a positive effect on self-care as long as the patient is able. Adherence to medication as well as advice from health workers is very important to increase patient self-care motivation.

Borderline Case

The borderline case is an example case that contains most of the attribute concept definitions that were checked but not all of them were found [14].

Mr. G, 52 years old, is being treated for heart failure. He has edema in both legs and unstable vital signs. BP 160/90 mmHg, pulse 88 beats/minute, RR 30 beats/minute. Oxygen 4 liters/minute. The nurse advises him to take the prescribed medication and eat the prescribed diet from the hospital. His conditions improved so he was allowed to go home. While at home, he followed several suggestions from doctors and nurses to take medication regularly, limit salt consumption (6 grams/day, equivalent to one teaspoon), and weigh every week. But he could not accept his condition. He said he was a useless man in the family. He was devastated by the death of his wife 6 months ago. Currently, he lives with his 16-year-old daughter, who will continue her studies next year. The patient and his daughter still really need his wife's love. He works as a casual daily employee, earning money for his family's needs and saving for his daughter's college. Because he eats more often at work efforts to control the salt in his diet are neglected. He is committed to supporting his family as far as he can.

This borderline case indicates that one of the defining attributes such as surrender to self-care is not included. The patient has decided to adhere to the treatment and recommendations given by doctors and nurses. He has felt the benefits of the treatment and suggestions he received, but he could not accept his condition, especially in terms of regulating the salt diet. However, his love for his daughter encouraged him to keep working to earn a living and also to prepare for his daughter's college fees.

Contrary Case

The contrary case is a clear example that does not illustrate the concept. This means that the contrary case is contradictory and does not meet all the definitions of the existing attributes [14].

Mr. W, 45 years, complains of severe headache, on a scale of 9 (0-10). Has had a history of high blood pressure since 8 years ago. Not routinely controlling blood pressure, the medicine has run out a month ago. He doesn't take medicine anymore because

he doesn't have any complaints. He said that he prefers to buy food at a shop, lazy to follow the hypertension exercise program from the public health center. He always eats salty food. Salted fish is a favorite food in his family. Currently BP 200/100 mmHg, pulse 82 beats/minute, RR 22 beats/minute. The nurse suggests a low-salt and low-fat diet, but the patient prefers to eat high-salt foods. He did not accept his condition. According to the patient, his frequent head was caused by his son's misbehavior. He has been laid off from work at an office. Currently, only at home, sleeping, eating, and watching television. He is often angry with his son. He said that his son made his headache and his blood pressure high.

This case shows that not a single attribute definition is entered. This contrasts with the model case; all attribute definitions are not included. This case of contradiction helps us to understand how important attribute definitions are in the concept of adherence to self-care.

Antecedent and Consequences of the Concept of Adherence **Antecedent**

An antecedent is an event or incident that must occur before the concept occurs [14]. Based on this definition, the antecedent of this concept is the occurrence of hypertension in a person caused by various risk factors, including modifiable and non-modifiable risk factors [1]. Modifiable risk factors are fundamental to support efforts to improve self-care. Therefore, it must be known as the basis for making the concept. This factor also supports lifestyle changes that will greatly support self-care. The modifiable risk factors include smoking habits, low fiber diet, excessive salt consumption, obesity, stress, lack of activity, and alcohol consumption [1,18,19].

In addition, several important things affect a person's compliance in carrying out therapy, including patient factors, therapy factors, health systems, environment, and socio-economic factors. Knowledge of hypertension and beliefs about the effects of drugs can influence the patient's decision to complete therapy or not. Regimen complexity factors include the number of drugs that must be taken, toxicity, and side effects of drugs that can be inhibiting factors in completing therapy. Support from health workers including empathy will provide significant satisfaction to patients. Finance is also a major obstacle for patients receiving services in public clinics [20-22]. Barriers to access to services are also associated with poor metabolic control [1,9,23].

All of the above conditions play an important role in the early formation of the concept of self-care adherence. According to Aliviyanti, there are two consequences of this compliance, namely: 1) Positive adherence. If patient compliance increases, it can increase the safety of the use of drugs, the health care system becomes more effective, and the management of chronic diseases becomes more effective. 2) Negative adherence. If there is non-adherence, then the goal of therapy is not achieved and the cost of treatment is higher, and even more, complications occur.

The relationship between ABC (Antecedent, Behavior, and Consequence) in the concept analysis of compliance can be seen in the following figure.

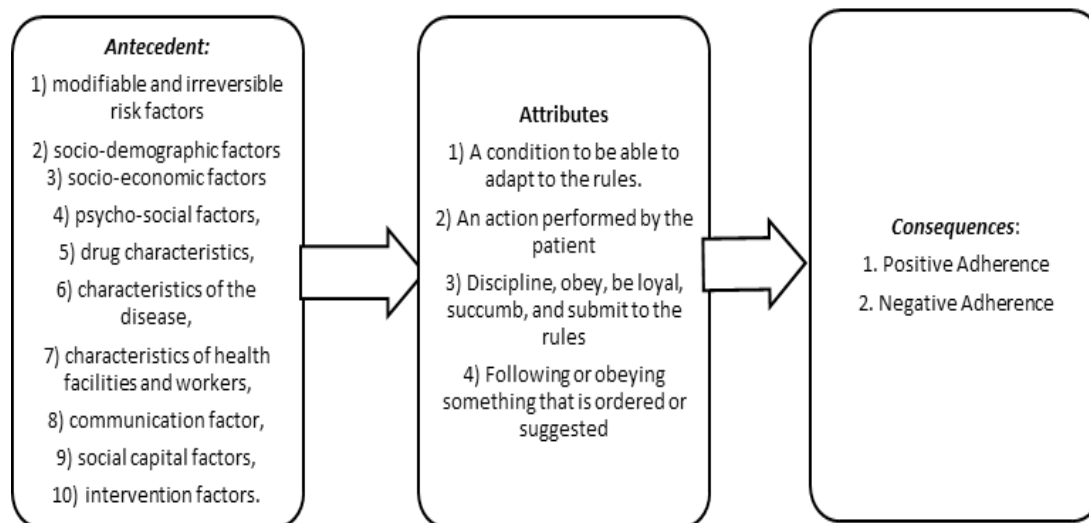


Figure 1: Concept Analysis Diagram on the Self-Care Adherence among Hypertensive Clients.

Empirical Reference

Empirical reference is a class or category of actual phenomena whose existence or presence indicates the occurrence of the concept [14]. The instruments to measure the concept of self-care adherence include the 8-item Morisky Medication Adherence Scale (MMAS-8) questionnaire [24], and from Morisky to Hill Bone questionnaire [25]. This questionnaire examines the patient's compliance in providing and consuming medicines prescribed by a doctor including whether you forget to take your medicine, take the wrong medicine, stop the medicine without confirming with your doctor, take medicine when you leave the house, prepared your medicine a day ago if feeling well whether to stop taking the medicine, take the medicine every day and have trouble remembering the medicine. Meanwhile, Hill Bone questionnaire consists of 14 items related to compliance with blood pressure control, including forgetting to take medication, decisions to take hypertension medication, salty foods, fast foods, making an appointment before leaving the clinic, taking other people's medication, only take medicine if there are complaints, and take the wrong medicine [24,25].

Empirical reference to this concept includes the occurrence of medication adherence and recommendations, as well as any indicators to measure the concept offered by these attributes. Even health promotion is necessary to instill in people to ensure that they will adhere to the public health advocacy, which is improving a healthy lifestyle as part of non-communicable disease prevention and control [3,20-22].

Conclusion

Adherence related to self-care is a complex concept. This includes physical, psychological, social, cultural aspects, and several other aspects both internal and external of the individual. Nowadays, the term compliance is more appropriate to use for self-care for people with hypertension. This article has clarified the concept of adherence related to self-care more clearly. This concept must be further investigated to advance the nursing practice, particularly among hypertensive clients.

Nursing Implications

In providing nursing care to hypertensive patients, nurses need to be aware of the rights, obligations, and roles of patients. Adherence is closely related to the rights and obligations of patients, so nurses should provide adequate information to patients about treatment and care. This will increase the patient's understanding of the benefits of treatment so that they will decide independently to adhere to the treatment and recommendations that are appropriate for their health. Nurses have an important role in facilitating patients to use their rights appropriately regarding self-care to control blood pressure while in controlled conditions (within normal limits).

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