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ASSESSMENT OF NURSING NEEDS OF PATIENTS  
WITH ARTERIAL HYPERTENSION

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## I N T R O D U C T I O N

Agaard (1973), stated that Hypertension is one of most important health problems.

Weatherall, et al., (1984), mentioned that the definition of high blood pressure depends entirely upon what arbitrary limits are put on normality for, there is no dividing line between normal and abnormal, in practice there are variations of individual blood pressure among different populations, whether young, old, pregnant or non pregnant. The level of blood pressure in a defined population is a continuously disturbed variable in the same way as urea and cholesterol.

Ailinger, (1982), stated that nurses provide A major role of health care, where they have frequent opportunities for finding, assessing, referring and following up patients with hypertension they can also assist clients to understand the nature and treatment of hypertension.

Mitchell, (1977) added that nurses are in an ideal position to educate hypertensive patients in order to adhere to the program of treatment, he pointed out that a hypertensive patient should understand why changes in behavior need to be continued in the absence of symptoms and he must realize the controllable but uncurable nature of hypertension.

Aim Of The Study:

1. To identify nursing needs of hypertensive patients.
2. To assess knowledge of patients suffering from hypertension.
3. To assess the physical condition of the patients.
4. To identify the factors contribugint to the disease and risk groups.
5. Based on the previous data collected, to recommend nursing care intervention for hypertensive patients.

## Review of Literature



Definitions:

Lukmann and Sorensen, (1980), mentioned that hypertension is a common cardiovascular problem. No single definition of hypertension is universally recognized, hypertension is to be considered whenever, there is an elevation of systolic blood pressure above 140 mmHg and of diastolic pressure above 90 mmHg, as these definition is accepted by the World Health Organization.

Wilcox (1978), and Krupp, (1986), mentioned that, there are 2 types of hypertension regarding the cause, in essential hypertension. No underlying cause for the rise in pressure has so far been found, this is so in approximately 80-90% of hypertensive patients, while in remaining 10-15% of cases, hypertension is secondary to diseases for example, renal, vascular, coarctation of the aorta, endocrine and neurological disorders.

Kaplan and Garrett (1979), defined hypertension as refractory when the patient shows an unsatisfactory response to therapy that is generally effective or when treatment with three drugs at the maximum dosage fails to bring the blood pressure to levels below 200/110 mmHg or to reduce the blood pressure 10% below the initial level.

# **INTRODUCTION & AIM OF THE STUDY**

Harris et al., (1984), defined labile hypertension as intermittent high blood pressure.

However, Braunwald, (1984), stated that in the view of usual changeability of the blood pressure, the term "labile" is inappropriate for describing diastolic pressure that exceed 90 mmHg only occasionally, instead, the term borderline should be used.

Kopelman (1985), defined mild hypertension as diastolic blood pressure between 90-104 mmHg. while McMahon (1984), defined moderate hypertension as diastolic blood pressure between 105-114 mmHg.

Harris et al., (1984), defined benign hypertension as gradual rise in blood pressure with minimal clinical signs, the disease progresses slowly over many years rarely causing complications until it is far advanced.

Ferguson and Vlases (1986), stated that the Joint National Committee on detection, evaluation and treatment of high blood pressure, defined severe hypertension as a diastolic pressure of 115 mmHg or greater.

Hill and Fink, (1983), and Johns (1979), stated that further stages of severe hypertension are labeled accelerated or malignant, where accelerated hypertension

means the patient has grade III retinopathy, that is fundoscopic examination reveals exudates and haemorrhages on the retina and a high diastolic pressure usually above 120 mmHg. However, malignant hypertension means that the patient had grade IV retinopathy, that is papilloedema or swelling around the optic disc and even a higher diastolic pressure usually above 130 mmHg papilloedema indicates the presence of cerebral oedema with encephalopathy, in addition, the effects of cerebral ischemia and oedema, impair consciousness and the individual may be drowsy, confused or comatosed, however the malignant nature of the syndrome is indicated by the presence of arteriolitis and arteriolar fibroid necrosis that impairs the function of vital organs.

Weatherall, et al., (1984), pointed out that the hypertension is thus not a disease per se in the same sense as gout or arthritis, but rather a symptom associated with an abnormality of function and/or a structure and the disease process associated with high arterial pressure are the consequences of the damage caused to the heart or to the arterial wall by a given level of pressure.

### Hypertension As A Health Problem:

Robbins and Kumar (1984), pointed out that the females are affected more than males, they also pointed out that as much as 50% of the population over age 50 years, may have essential hypertension.

However, Braunwald, (1984), mentioned that hypertension is less common in women than men before the age of menopause this was attributed to the lower blood volume and viscosity afforded by women by their monthly menses.

Wilcox, (1978), pointed out that hypertension is believed to be equally prevalent in the developing countries, yet patients under treatment are far fewer.

### Documentation Of Hypertension:

Braunwald, (1984), mentioned that in deciding what is normal or abnormal for an individual the following guidelines were suggested:

- 1- Multiple readings should be taken using the appropriate technique.
- 2- Although the logical approach is to average the multiple readings, even a single high reading should

not be disgarded, single causal readings have been found to relate closely to the subsequent development of cardiovascular diseases.

- 3- Relatively small elevations, if left untreated are associated with significant morbidity and mortality.

#### Physiology Of Blood Pressure:

As pointed out by Wilson(1981), and by Winwood and Smith (1985), blood pressure was defined as the force or pressure which the blood exerts on the walls of blood vessels, as there is some delay in the movement of blood through the arteriolar and capillary systems, the blood pressure in the arteries is higher than that in the veins, the arterial blood pressure is the result of the ejection of blood from the left ventricle into the already full aorta, when the left ventricle contracts and pushes blood into the aorta the pressure produced is known as systolic blood pressure which is found in an adult to be about 120 millimeters of mercury.

When complete cardiac diastole occurs and the heart is resting following the ejection of blood the

pressure within the arteries is termed diastolic blood pressure, in an adult, this is about 80 mmHg.

They also added that in the maintenance of blood pressure some factors are involved such as cardiac output, blood volume, peripheral resistance, elasticity of the artery walls and the venous return and this involves position of the body, muscular contraction and effects of respiratory movement.

#### Cardiac Output:

Anthony and Thibodeau, (1983), stated that, the cardiac output is determined by both the volume of blood pumped out of the ventricle by each beat "stroke volume" and by the heart rate.

They also mentioned that stroke volume means the amount of blood pumped by one contraction of the ventricle and it reflects the force or strength of ventricular contraction, the stronger the contraction the greater the stroke volume tends to be, so, stroke volume X heart rate = cardiac output.

Since the stroke volume and heart rate determine cardiac output, so many things that makes the heart rate faster or any thing that makes it beat stronger, increases