

Hypertension Research Paper

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Hypertension, sometimes referred to as “The Silent Killer” is a worldwide issue that has been a struggle to regulate. It occurs when the blood pressure in the body increases to an unhealthy level. The risks and signs of hypertension often go unnoticed until there is significant damage done. Many people who have hypertension will have a late diagnosis because there are few symptoms to recognize. However, with the correct education on the topic we can prevent severe damage from occurring. High blood pressure is categorized as primary or secondary. The main difference being primary does not have a definitive cause, while secondary relates to another medical illness the client is experiencing. There are many ways to prevent and treat hypertension. It begins with understanding predisposing risk factors that can lead to hypertension. This disease affects many organs in the body including the heart, eyes, and kidneys. “Given the overt risk of cardiovascular disease development when blood pressure is left uncontrolled, it is imperative to view hypertension as pre-heart failure.” (Di Palo & Barone, 2022). There is great importance to treating hypertension due to its ability to become a life threatening disease. Generally, the population of people with hypertension is increasing, still the healthcare community is fighting to gain some control through education of prevention, treatment, and awareness.

Statement of the Problem

Blood pressure is the measurement of pressure in the arteries as the heart pumps blood throughout the body. Your systolic blood pressure is the pressure when the heart contracts, while diastolic pressure is when the heart relaxes. Blood pressure can change throughout the day based on activities however, hypertension is diagnosed when there is a consistency in high blood pressure. “Hypertension is defined as a sustained elevated blood pressure, when systolic BP is greater or equal to 130 and/or diastolic BP greater or equal to 80.” (Di Palo & Barone, 2022).

These elevated numbers mean there is an increase in pressure on vessels surrounding the heart. Long term effects of this pressure can lead to damage of many vital organs. Hypertension is a major problem in the United States due to lifestyle habits. High blood pressure is often related to poor lifestyle choices, such as diet, exercise, and the use of alcohol or smoking. The incidence of hypertension in a U.S. adult is 46% (“Hypertension”, 2022). Almost half the population has some kind of hypertension. As stated, this disease often goes underdiagnosed, this is when it leads to major problems such as a heart attack, blindness, end stage kidney failure, ischemic stroke and many more life threatening illnesses. When hypertension is not treated the client is at a greater risk for a heart attack, stroke, chest pain, heart failure, kidney damage, PAD, the list goes on. Hypertension affects the nursing community by wasting valuable time and energy going into a possibly preventable situation. The healthcare community spends billions of dollars on the treatment of hypertension a year (Wierzejska, E. 2020). With the proper education, counseling and skillbuilding, we can reduce the time and money spent on elevated blood pressure and use it towards other healthcare issues. The incidence of hypertension can also be greatly reduced from such a significant number.

Risk Reduction/Treatment of the Problem

Hypertension is a highly preventable disease. Beginning with the awareness of factors that put someone at risk. Risks include age, diet, obesity, sedentary lifestyle, ETOH, smoking, and genetics. Main ways to prevent these risks are to eat a healthy diet, maintain a healthy weight with a BMI under 30, stop smoking, limit alcohol, be physically active, and get adequate sleep. Proper screening of hypertension is extremely vital in the prevention of worsening the disease. “Ultimately, early detection can help reduce morbidity and mortality linked to it...” (Schmidt, B. 2020). Screening for hypertension in those older than 40 years and at risk should

be done annually (Yano & Loyd-Jones, 2021). For ages 18 through 39 who are not at risk should be done every 3 to 5 years (Yano & Loyd-Jones, 2021). By these frequent checks of blood pressure, early detection of hypertension can be identified. Another factor that should be noted is the importance of compliance with preventing and treating hypertension. Many people do not control their disease and it leads to worsening health problems. “Health care professionals should pay more attention to older HT patients who have a low level of education and who experience the lack of social support.”(Uchmanowicz et al. 2018). These clients are more susceptible to less adherence of controlling their blood pressure. Our focus should be centered around education of those who are least compliant with their lifestyle or drug therapy in treating their hypertension. Hypertension is treatable with antihypertensive medications. Thiazide diuretics, angiotensin converting enzyme (ACE) inhibitors, and angiotensin II receptor blockers (ARBs) were found to be most effective in lowering blood pressure by a meta-analysis of antihypertensive treatment (Di Palo & Barone, 2022). These medications work to lower blood pressure by either removing extra fluid from the body to decrease the pressure or dilating blood vessels to slow the heartbeat. In addition to antihypertensive medications, lifestyle modification is another way to reduce high blood pressure. With regulation of diet, alcohol intake, reduction of illicit drugs and regular exercise hypertension can be considerably controlled. A diet should include low saturated fat and low sodium, adequate calcium, magnesium, and potassium. The DASH diet is a commonly followed diet that focuses on vegetables, fruits, low fat dairy products, whole grains, and lean meats. Exercise is also a huge factor to treat hypertension. 30 minutes a day is recommended for physical activity (“Hypertension”, 2022). With consistent exercise the heart will become stronger leading to a greater amount of blood being exerted from the heart with less effort.

Planning of Teaching Content

The main learning outcomes for the community is to understand the significance in prevention of hypertension and more ways they can educate themselves on the topic. Community members will understand how to take their own blood pressure evidenced by proper use of an automatic blood pressure cuff. In addition, they will understand how to prevent high blood pressure by verbalizing 3 factors that put someone at risk. To effectively transfer important information, we must give the community something they can relate to and then explain to them what the consequences can be to not following through with the maintenance of their health. It is extremely important to show the effects of uncontrolled hypertension and what it can lead to. By doing so many will want to act. In addition to this providing them with all the information they need will make it more likely for them to comply with prevention or treatment of hypertension. Education on monitoring one's own blood pressure at home is very important to maintaining a healthy value. Demonstrating how to use an automatic blood pressure cuff can be very useful for the public. A handout including details about proper lifestyle habits including local gyms, trails, and public parks where the community can get some sort of activity in. Including specific examples of foods that should be consumed when treating hypertension will also be beneficial.

Conclusion

Hypertension is very prevalent today all over the world. The under diagnosis of this disease has led to more medical problems becoming prominent. To reduce the number of those suffering from hypertension, the health care community needs to base their focus on proper education to prevent the incidence of hypertension. To teach the public about the risks, prevention, and treatment of hypertension it is best to start from the basics. Explaining what blood pressure is, what a normal reading is and why it is important to regulate blood pressure will help encourage the community in controlling their hypertension.

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