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Psychological Perspective as a remedy on Stress and Hypertension Management-A Study

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Abstract

Your body delivers a flood of chemicals when you're in an upsetting circumstance. These chemicals briefly increment your circulatory strain by making your heart beat quicker and your veins to limit. There's no confirmation that pressure without help from anyone else causes long haul hypertension. In any case, responding to pressure in unfortunate ways can build your danger of hypertension, cardiovascular failures and strokes. Hypertension, otherwise called high or raised circulatory strain, is a condition wherein the veins have steadily raised tension. Normal factors that can prompt hypertension include like an eating routine high in salt, fat, as well as cholesterol. Persistent conditions include like kidney and chemical issues, diabetes, and elevated cholesterol. Any medication can cause incidental effects, and hypertension medications are no special case. In any case, many individuals don't have incidental effects from taking hypertension drugs, and regularly the incidental effects are gentle. On the off chance that you have hypertension, you're bound to encounter mindset issues, for example, anxiety and depression than those with a typical pulse. Hypertension is a reasonable condition. There are ways of controlling your pulse with a way of life changes as well as drugs. This paper focuses on the impact of medication for stress and hypertension and will signify the factors that influence the cause for the same and bring out a psychological perspective to overcome the factors and bring about normalcy in life.

Keywords: Hypertension, Stress, effects of psychological perspectives for Stress and Hypertension management

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Introduction:

Stress can promote hypertension by causing blood pressure to rise repeatedly, as well as stimulating the nervous system to create significant amounts of blood-pressure-raising vasoconstricting hormones. Job strain, social environment, and mental anguish are all factors that affect blood pressure through stress. Additionally, when one risk factor is combined with multiple stressors, the impact on blood pressure is amplified. Meditation, acupuncture, biofeedback, and music therapy are examples of non-pharmacologic stress management techniques that have been demonstrated to be beneficial in lowering blood pressure and preventing the development of hypertension. Stress has become a common part of people's life in these days of extended work weeks, computers, fax machines, and unending committee meetings; as a result, the influence of stress on blood pressure is becoming increasingly relevant and important. Although stress does not cause hypertension directly, it can contribute to frequent blood pressure rises, which can lead to hypertension in the long run.

Relationship between Stress and Blood Pressure:

When you're in a stressful scenario, your body creates a surge of hormones. These hormones cause your heart to pump quicker and your blood vessels to narrow, momentarily raising your blood pressure. There's little evidence that stress causes high blood pressure in the long run. However, improper stress reactions might put you at risk for high blood pressure, heart attacks, and strokes. Higher blood pressure is associated with certain behaviours, such as: Smoking, consuming an excessive amount of alcohol, Consumption of unhealthy foods.

Heart disease may also be connected to some stress-related health issues, such as: Anxiety\Depression, Isolation from family and friends. However, there is no proof that these disorders are caused by high blood pressure. Instead, when you're emotionally worried, the hormones your body produces may damage your arteries, leading to heart disease. Furthermore, some symptoms, such as those induced by sadness, may cause you to forget to take drugs to reduce high blood pressure or other cardiac problems.

Blood pressure rises as a result of stress can be dramatic. When you're no longer stressed, your blood pressure returns to normal. Even frequent, brief blood pressure increases, on the other hand, can harm your blood vessels, heart, and kidneys in the same way that long-term high blood pressure does. Although hypertension is an incurable disease, it can be controlled with drugs and lifestyle changes. The primary goal of treatment is to lower blood pressure and, as a result, the risk of consequences.

Underlying Causes for Hypertension:

Secondary hypertension is defined as high blood pressure caused by a medical condition. Until such issues are treated, secondary hypertension will be difficult to manage. The more resistant hypertension is, the more likely a secondary cause is present.

The following are some of the most common secondary causes of hypertension:

Structural Disturbances:

- *Sleep apnea* is a condition in which you stop breathing for a few seconds while sleeping.
- *Renal artery stenosis* is a narrowing of the artery that transports blood to the kidneys.
- *Aortic coarctation* is a constriction of a section of the aorta (the artery that sends blood from the heart to the rest of the body)
- *Failure of the kidneys*

Hormonal Disturbances:

- *Primary aldosteronism* is a blood pressure-raising adrenal gland condition.
- *Pheochromocytoma* is an adrenal gland tumour that produces too much epinephrine and/or other blood-pressure-raising chemicals.
- *Hyperthyroidism (overactive thyroid) and hypothyroidism (underactive thyroid)* can both raise blood pressure
- *Cushing's disease* is caused by an overproduction of cortisol, the "stress hormone," caused by a tumour in the pituitary gland.
- *Other congenital neuroendocrine disorders* are relatively uncommon.

There is no known medical aetiology for resistant hypertension in people. These individuals are said to have **primary hypertension**, and their treatment will consist of medication and lifestyle modifications.

Medicines for Hypertension:

To keep their blood pressure at healthy levels, many people need to take medicine in addition to making lifestyle modifications. When it comes to commencing treatment for high blood pressure, four kinds of drugs are regarded as "first line" (the most effective and widely used). Other medications may be used in conjunction with these first-line medications to help control your high blood pressure. The following are first-line blood pressure medications:

- ❖ **Angiotensin-converting enzyme (ACE) inhibitors** prevent the body from producing the angiotensin II hormone, which regulates blood pressure naturally. The blood vessels do not narrow when angiotensin II is blocked. Lisinopril (Zestril® or Prinivil®), enalapril, or captopril are other examples.
- ❖ **Angiotensin II receptor blockers (ARBs)** prevent the same hormone from binding to blood vessel receptors. ARBs prevent blood arteries from constricting in the same way that ACE inhibitors do. Metoprolol (Lopressor®; Toprol® XL), valsartan (Diovan® or Prexxartan®), and losartan are among examples.
- ❖ **Calcium channel blockers** keep calcium from entering the heart and blood vessels' muscle cells, allowing them to relax. Amlodipine (Norvasc® or Katerzia®), nifedipine (Procardia®XL or Nifedical®XL), diltiazem (Cardizem®, Dilacor® XR, or Tiazac®), and nifedipine (Procardia®XL or Nifedical®XL).
- ❖ **Diuretics (water or fluid pills)** reduce the quantity of fluid in the blood by flushing excess sodium from the body. Diuretics are frequently coupled with other blood pressure

medications, sometimes in a single dose. Indapamide, hydrochlorothiazide (Microzide® or Oretic®), and chlorothiazide are among examples.

Working of Blood Pressure Medicines:

Blood pressure medications can operate in a variety of ways. Blood pressure medications can help to maintain a healthy blood pressure level by causing the body to lose water, bringing the amount of water and salt in the body back to a healthy level, Getting the blood vessels to relax, reducing the force with which the heart beats, nerve activity that can constrict the blood arteries is blocked.

The optimal sort of treatment is one should discuss with his health care provider. Blood pressure regulation may necessitate the use of multiple medications. One can also discuss with his healthcare team how long it should take for your blood pressure medicine to take effect.

Psychological approaches for Hypertension Management:

In the long term, lowering your stress level might not directly lower your vital sign. Using stress management practices, on the opposite hand, can facilitate you to enhance your health in various ways. Learning stress management strategies can cause positive behaviour changes, like pressure level reduction. You can discover techniques to assist you to handle stress before it becomes an excessive amount. You can discover techniques to help you handle stress before it becomes too much. These suggestions may assist you in reducing stress:

- Maintain a positive outlook.
- Accept that some things are beyond your control.
- Instead of being aggressive, be forceful. Rather than becoming angry, defensive, or passive, express your feelings, opinions, or beliefs.
- Learn how to better manage your time.
- Set appropriate boundaries and decline requests that may cause you undue stress.
- Make time for your interests and hobbies.
- To relieve stress, don't rely on drink, drugs, or compulsive activities. Drugs and alcohol might cause your body to become even more stressed.
- To discover more healthy methods to deal with stress in your life, seek counselling from a psychologist or other mental health professional trained in stress management or biofeedback technique

There are numerous strategies for dealing with stress. Consider the following scenario:

- ***Reduce the number of things on your to-do list:*** Take a few minutes to evaluate your calendar and to-do lists if you're usually rushing. Look for time-consuming hobbies that aren't important to you. Reduce the amount of time you spend on these activities or remove them entirely.
- ***Exercise:*** To begin with, physical activity can help you sleep better. Improved sleep also translates to better stress management. Doctors aren't sure why, but people who exercise more get better deep "slow-wave" sleep, which helps the brain and body replenish themselves. Just be careful not to exercise too close to

bedtime, as this can cause sleep disruption in some people. Exercise appears to improve mood as well. Part of the explanation could be that marijuana causes your body to release a variety of hormones such as endorphins and endocannabinoids, which help you, block pain, sleep better, and relax. Some of these (endocannabinoids) may be to blame for the euphoric sensation, or "runner's high," that some people experience after lengthy runs.

- **Healthy Diet:** Eating healthy foods has mental health benefits in addition to physical ones. A nutritious diet can help you manage stress, strengthen your immune system, improve your mood, and lower your blood pressure. Adding a lot of sugar and fat to your diet can have the opposite impact. When you're under a lot of stress, junk food can seem even more attractive. Antioxidants are also beneficial. They shield your cells from the harmful effects of chronic stress. They can be found in a wide range of foods, including beans, fruits, berries, vegetables, and spices like ginger. With a few basic suggestions, you can maintain a nutritious diet. Make a grocery list. When you leave the house, bring some healthy foods with you. Avoid processed foods as much as possible, and try not to consume mindlessly. Scientists have identified several nutrients that appear to assist the body and mind cope with stress. As part of a well-balanced diet, make sure you get enough of Magnesium and Vitamin C, Omega-3 fatty acids are essential fatty acids. Look for complex carbs, lean proteins, and fatty acids in fish, meat, eggs, and nuts to keep healthy and balanced.
- **Yoga and meditation:** They are good options. Yoga and meditation both build and soothe your body. These strategies can help lower your systolic blood pressure by up to 5 millimetres of mercury (mm Hg).
- **Deep Breathing:** Inhale deeply. You activate your body's inherent ability to relax when you practice deep breathing. This induces a profound level of relaxation, which can alter how your body reacts to stress. It increases the amount of oxygen sent to your brain and relaxes the component of your neurological system responsible for relaxation.
- **Try breathing from your belly button:** Close your eyes and place one hand on your stomach and the other on your chest to get comfortable. Inhale slowly and deeply through your nose. Your belly should rise faster than your chest. Now exhale slowly and deliberately through your nostrils, paying great attention to how your body relaxes. Repeat.
- **Biofeedback:** When stress strikes, use biofeedback to learn how to control your heart rate, muscle tension, and blood pressure. When you try to relax, biofeedback gives you information about how your body reacts. Sensors are attached to your body, alerting you to changes in everything from your brainwave pattern to muscle tone. By adjusting how your body reacts to the sensor with the help of a biofeedback therapist, you can begin to take control of the signals.
- **Connect with People:** Spend time with someone who will listen to you, such as a friend or family member. It's a natural approach to relax and relieve tension. When you make physical contact with individuals, your body produces a hormone that suppresses your fight-or-flight reaction. You unwind.
- **Make sure you get enough rest:** Sleep deprivation might make your problems appear more serious than they are.

- ***Change your point of view:*** When faced with difficulty, avoid the urge to whine. Recognize your sentiments about the situation before concentrating on seeking answers.
- ***Laugh Therapy:*** Laughter is a form of treatment. You take in more oxygen when you chuckle. Laughter also boosts your immune system, reduces discomfort, and elevates your mood over time.
- ***Autogenic training (AT):*** It is a method of self-relaxation that elicits a psychophysiological defined relaxation response. Johannes Heinrich Schultz created this relaxing technique. In AT, the person learns a set of instructions/exercises that tell the body to relax and control its breathing, blood pressure, heartbeat, and body temperature. AT consists of six common exercises that make the body feel warm, heavy, and relaxed using visual images and verbal prompts. Each exercise is learned by reading about it or watching a teacher demonstrate it, then practicing for a few minutes several times a day. Whether with the help of a teacher or on one's own, mastering the exercises is essential. It requires 4 to 6 months. According to a meta-analysis of clinical outcome studies in AT, it is effective for a variety of illnesses, including mild-to-moderate essential hypertension, coronary artery disease, Asthma, bronchial, heart disease, Somatoform pain disorder (SPD) is a type of pain illness that affects (unspecified type), anxiety disorders, mild to moderate depression/dysthymia, and sleep disorders with a functional component.

The objective is to figure out what works best for you. Keep an open mind and a willingness to try new things. Choose your strategies, put them into action, and start reaping the rewards.

Conclusion

Stress is known to play a role in aetiopathogenesis, disease initiation and progression, disease aggravation, and patient quality of life via complicated neuro endocrinological pathways. Because stress is universal and affects everyone, a more comprehensive grasp of stress. Techniques of management are necessary for avoiding disease caused by stress and improving overall health. As a result, it should include in the preventative process at all levels, addressing the needs of many groups and in many settings. The strategies described in this paper can help patients and healthcare providers who are experiencing stress or stress-related symptoms. Health visitors, nurses, physicians, and other health professionals can employ these interventions safely and successfully in a variety of patient and healthy groups with sufficient training.

References:

1. H Rüdell, R Schmieder, W Langewitz, W Schulte (1988). Impact of antihypertensive therapy on blood pressure reactivity during mental stress, March 1988. National Library of Medicine.
2. S Kulkarni, I O'Farrell, M Erasi, M S Kochar (1998). Stress and hypertension, National Library of Medicine, December 1998.

3. Liza Varvogli¹ and Christina Darviril (2011). Stress Management Techniques: evidence-based procedures that reduce stress and promote health, Health Science Journal, 2011.
4. Bo Hu, Xiaoyu Liu, Sufeng Yin, Hongmin Fan, Fumin Feng, Juxiang Yuan (2015). Effects of Psychological Stress on Hypertension in Middle-Aged Chinese: A Cross-Sectional Study, National Library of Medicine, June 4, 2015.
5. Irene A. Kretchy, Frances T. Owusu-Daaku, Samuel A. Danquah & Emmanuel Asampong, (2015). A psychosocial perspective of medication side effects, experiences, coping approaches and implications for adherence in hypertension management, BMC Port of Springer Nature, 17 September 2015.
6. <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/stress-and-high-blood-pressure/art-20044190>
7. <https://my.clevelandclinic.org/health/diseases/4314-hypertension-high-blood-pressure>
8. <https://www.cdc.gov/bloodpressure/medicines.htm>
9. <https://www.webmd.com/balance/stress-management/stress-management>
10. <https://www.news-medical.net/health/Managing-and-Reducing-Stress.aspx>
