

Cardiovascular Disease and Its Psychological Interventions

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Abstract

Cardiovascular disease is one of the leading problem seen by the physician and it is not easily treated. In some instance, behavioral therapy may serve as a useful adjunct to the pharmacological treatment of this disease. There is evidence indicates the literature on that relaxation therapy and stress management merit in combination with medical treatment result in significantly greater reductions.

Resent clinical research on the psychological treatment of cardiovascular disease is rewarded in four categories as Hypertension, Cardiac arrhythmia coronary artery disease and peripheral circulatory disease. In the treatment of hypertension bio-feedback of blood pressure, electromyography and galvanic skin responses both are very useful, as systematic relaxation training of either an active or passive- meditative nature bio feedback of heart rate has shown some utility.

Keywords: Cardiac, Coronary, Cardio-vascular, Myocardial Infraction, Ischemia, Fibrillation, Stress, Anxiety, Autonomic Nervous System, Depression, behavioral mechanism.

Introduction

The coronary heart disease (C.H.D) is known as many technical name as coronary artery disease (C.A.D), Ischemic heart disease (I.H.D). It involves the reduction of blood flow to the heart muscle due to buildup of the plaque in arteries of the heart. It is the most common of the cardiovascular disease. Its types include Stable Angina, Unstable Angina, and Myocardial Infraction or sudden cardiac arrest.

Aim of the study

This study is focused upon the relation of Psychological symptoms like, stress, anxiety and depression with the Cardio-vascular diseases. This paper is an attempt to point out the importance of Psychological treatment along-with medicines in case of such diseases, which may save several valuable lives.

Common Angina

Common angina or stable angina is the most common form of angina. It usually happens when the person exert yourself and goes away with rest, for example – pain that comes when person walking uphill or in the cold weather may be cause angina.

Angina is chest pain or discomfort when there is not enough blood flow to the heart muscle. The heart muscle needs oxygen that the blood carries. Angina may feel like pressure or squeezing pain in chest. It may feel like indigestion and also feel pain in shoulders, arms, back, and jaw.

Uncommon Angina

Unstable angina is a condition in which heart don't get enough blood flow and oxygen. It may lead to the heart attack. Angina is a type of chest discomfort caused by poor blood flow through the blood vessels of the heart muscle.

Myocardial Infraction

Limitation of blood flow to the heart cause ischemia is known for cell starvation secondary to the oxygen and this is called a myocardial infraction is commonly known as heart attack.

Ventricular Fibrillation

Chronic high grade narrowing of the coronary arteries can induced transient ischemia which leads to the induction of ventricular arrhythmia, which may terminate in to a dangerous heart rhythm known as ventricular fibrillation which often leads to death.

Anxiety

The anxiety is caused for the heart disease has been mentioned around for as long as the history of medicine has been documented.

Anxiety is generally defined as a psychological emotional state or reaction that can be distinguished most clearly from other emotions such as anger or sadness by its experiential qualities. An anxiety state consists of unpleasant feelings of tensions apprehension, nervousness, and worry and activation of the autonomic nervous system. The psychological manifestations in anxiety generally include increased blood pressure, rapid heart rate or sweating, dryness of mouth, nausea, vertigo, irregularities in Breathing, muscle tension and muscular skeletal disturbances such as restlessness, tremors and feeling of weakness.

Anxiety also refers to relatively stable individual differences in anxiety proneness as the personality traits. People who have high trait anxiety are most likely to perceive stressful situations as being personality dangerous or threatening and respond to such situation with elevation in state anxiety.

Association of Anxiety with C.H.D

Many studies in the early 1980's shows that C.H.D is frequent subject with anxiety state (Bass 1984/Costa 1981/De Maria et al 1980/Schoken et al 1984/Sproffkin et al 1984) even suggesting that anxiety may play a protective role against atherosclerosis (Rosenman 1990) on the basis of finding positive association between anxiety and C.H.D.

However, in the 1980's and continuing in to the early 1990's six studies examined C.H.D outcomes in patients with anxiety disorder. In two studies, there was a higher than expected death rate from the disease.

Stress

Psychological stress is more to do with the turning off the body's stress responses to a situation.

Stress is a complex term to define. Its simplest definition might be that it is an event or situation that forces a person to adapt the situation. Stress is completely subjective experience. The one event or situation may stressful to one person might be pleasant or fun to another for example flying can cause some people and stressful for some people and relate illness. It hard to turn their body response.

Even minor stress can trigger heart problem like poor blood flow to heart muscle. This is the condition in which the heart does not get enough blood or oxygen. Long term stress can affect blood pressure and reason for blood clots. This makes sticker and increase the risk of stroke.

Acute Stress

Acute stress is one of the least damaging type of stress which is good because it is also the most common type of stress and people experiences it multiple time in a day.

During an acute stress response the autonomic nervous system is activated and body experiences increased limit of cortisol adrenalin, other hormones that produced an increased heart rate, quirked breathing rate and high blood pressure.

Chronic Stress

Many factors can trigger a stress response. Including dangerous situations and physical pressure

on the body for an extended period. This can cause arrange of symptoms and increased the risk of developing certain illness.

Chronic stress affects the whole body. It can have several physiological or psychological symptoms, which can make functioning on a daily basis, more challenging.

Association of Stress with C.H.D

The casual link between stress and C.H.D research provides epidemiological and experimental evidence on the importance of stress in early atherosclerosis and in the pathogenesis of C.H.D.

The different type of stress psychological stress, psycho-social stress is playing the role in develops disease. Although the inherited, even a genetic disposition to C.H.D has been documented. C.H.D is a life style factor contribute to the manifestation of genetic disposition and eventually have an effect on onset of C.H.D. Increasing age, sex and heredity, smoking, high blood pressure, blood cholesterol,

Physical inactivity, obesity, alcohol consumption, behavioral and personality characteristic are the risk factor of C.H.D.

Depression

Depression is also known as major depressive disorder and clinical depression. It is a common and serious mood disorder. Those who suffer from depression experience persistence feeling of sadness and hopelessness, loss of activity they one's enjoyed. The emotional problem caused by depression. Individuals can also present with physical symptoms such as chronic pain or digestive issues. To be diagnosed with depression, the symptoms must be present for at least two weeks.

The DSM5 outline following criterion to make a diagnosis of depression. The individuals must be experiencing five or more symptoms should be either – expressed mood, loss of interest or loss of pleasure.

Association of Depression with C.H.D

Depression is a highly prevalent for coronary heart disease and for cardiovascular morbidity and mortality in C.H.D patients. Several biological and behavior mechanism have underlie the relationship between depression and C.H.D. The clinical trials have explained that treating the depression decreases the risk of chronic events in the patients with established C.H.D.

The cardiac rehabilitation may reduce depression and also reducing total mortality risk:

Psychological Treatment for C.H.D

It's reviewed the evidence to assess the effects of adding psychological treatment to usual care for people with coronary heart disease.

Many definition of cardiac rehabilitation have been proposed. The key concepts as the coordinated sum of activity required to influence favorably the underlying cause of cardiovascular disease, as well as to provide the best possible physical, mental and social conditions. So, that the patients may with their own efforts presence or resume optional functioning in their society and through improved health behavior, slow or reverse progression of disease. A part of their secondary rehabilitation, people may be offered

innervations which specifically aim to influence psychological or psycho-social. Intervention is varied and may range from organizational efforts to improve patients' communication and support.

Psychotherapies used to target diagnosed psychopathology in people with cardiac conditions. Furthermore psychological or psychosocial interventions may incorporate other elements of modification for cardiovascular health as – diet and lifestyle advice or exercise and other case intervention may be described as psychological techniques are used to further other treatment goals through promoting behavioral change.

How the Psychological Intervention Might Work

There is considerable evidence present in the C.H.D patients that negative emotional states such as anxiety, stress and depression are related to poor cardiac outcomes, although their remain uncertainty in the theoretical as well as empirical literature on the casual mechanism linking mood disorders and worse clinical outcome and who might be targeted by novel psychological interventions. The research has also shown that long-term stress can predict both the onset of C.H.D and recurrent C.H.D events or mortality in people with existing C.H.D. The casual pathway between the well-established physiological reaction to psychological stress, involving the hypothalamic – pituitary adrenocortical and sympathoadrenomedullary axes and C.H.D disease progression is not well understood. Many psychological interventions used within the context of treatment targets such as alleviating low mood disorder and reducing long – term stress.

Classification of Psychological Interventions

The first version of classified traits according to report using stress management procedures. The stress management was defined as the use of specific cognitive behavioral strategies used to help the patients reduce or manage their stress. These include learning relaxation technique, the use of cognitive technique such as self – instruction training and cognitive challenge with or without consideration of

specific coping strategies to be used at time of stress. Less specific approaches such as therapeutic counselling, cognitive restructuring or educational interventions such as self – management techniques used to change cardiac risk factor.

Conclusion

It is considerable evidence that negative emotional stress such as anxiety, depression, and long-term stress is related to poor cardiac outcomes.

However, there is uncertainty that remains in the theoretical and empirical literature on the causal mechanisms linking with mood disorders in this context. It is unsurprising that most studies have evaluated multifactorial psychological interventions as no single casual mechanism seems to fully explain the complex relationship between coronary heart disease, mood state, stress, and how this might have a wider impact on behavioral interventions targeting cardiac risk factors reductions

References

1. Ahuja J. (2006) *A Short Text Book of Psychiatry*. Japee Medical Publisher, New Delhi.
2. Barlow, D.H. (2008) *Clinical Handbook of Psychological Disorder*. The Guilford Press, New York.
3. Baron A. Robert (2000), *Psychology Fifth edition*, Pearson, Prentice Hall.
4. Benjamin Wallace, Fisher, E. Leslie, Allyn and Bacon, Cleveland State University, *Consciousness and Behavior*, Third edition
5. Blanchard.E.B.Millar S.T (1997) *Psychological treatment of cardiOvascular disease*.
6. *Diagnostic and Statistical Manual of Mental Disorder*. American Psychiatric Association, 4th Test Division(DSM IV – TR) ed (2000).
7. *Diagnostic and Statistical Manual of Mental Disorder*. American Psychiatric Association, 5th Test Division (DSM5) ed (2013).
8. Lindsey Anderson, Suzanne H.Remonds, Taylor R.S, Willy, *Psychological interventions for coronary heart disease*.