



A LITERATURE REVIEW ON PSYCHOLOGICAL FACTORS AMONG CARDIO VASCULAR DISEASE

Vandana Singh Malik^{1*}, and Rakesh Kumar Behmani²

^{1*}Senior Research Fellow- ICMR, ²Professor

^{1,2}Department of Applied Psychology, Guru Jambheshwar University of Science and Technology, Hisar-125001, Haryana, India

ABSTRACT

The present study aimed to review the psychological factors among cardiovascular disease. Psychological factors including perceived stress, maladaptive coping style, Lack of emotional and social support, negative effective regulation, personality/temperamental, negative cognitive style related to etiology, and prognosis of Cardio Vascular Disease (CVD). Cardiovascular diseases affect the cardia, tube of blood or consequences of insufficient blood provide due to an infected vascular system. People who die prematurely due to non-communicable disease die from diabetes, stroke, cancer, heart disease, and asthma that are preventable due to increased levels of exposure to tobacco consumption, physical inactivity, unhealthy diet, harmful use of alcohol, stress, lack of emotional and social stress. 87% of deaths, the reason of NCD. Psychological factors play an important role in Cardio Vascular Disease, it seems that further researches are needed in this regard. Psychologists help patients in their recovery of Cardio Vascular Disease by removing these psychological factors from their life through counseling and psychotherapy.

Keywords- Cardio Vascular Disease (CVD), Perceived stress, Maladaptive coping style, Negative cognitive style.

INTRODUCTION

Background – Globally, psychological and Behavioural factors are severe health risks for various non-communicable diseases. The present study aimed to review the psychological factors among cardiovascular disease. Psychological factors including perceived stress, maladaptive coping style, Lack of emotional and social support, negative effective regulation, personality/temperamental.

Cardiovascular disease (CVD) – Cardiovascular diseases affect the cardia; tube of blood or consequences of insufficient blood provide due to an infected vascular system. More than 82% of the death rate burden is reason by Ischaemic (Coronary) Heart Diseases (IHD), hemorrhagic and Ischaemic stroke, Congestive Heart Failure (CHF). Last few decades, CVD has become the main reason for death throughout the world, accounting for 50% of deaths and almost 30 percent of all deaths caused by non-communicable diseases (WHO, 2011). Regarding the number of deaths 26 million (almost 80%) of the 36 million deaths due to non-transmittable illnesses in the earth occurred in the low and middle - income nations in 2011. In which the percentage of deaths due to non-communicable diseases, the high-income nation has a higher percentage (87% of deaths, the reason of NCD), 81% middle income nation. The proportions of 36% in the low-income nation and 56% of middle-low income nations (WHO, 2013). The main causes of death of NCD in the world 17 million (48% of all deaths) deaths in 2008 were CVD and diabetes caused another 1.3 million deaths (WHO, 2011). Almost 70% of non-communicable diseases are caused by cardiovascular disease cancer and diabetes as a whole. Annual income loss to households associated with NCDs was roughly Rs.280 billion in India. The joint report by WHO and World Economy Forum estimated the income loss as \$8.7 billion in 2004 and likely to increase and 54 billion by 2015 (Nandan, Adish & Dhar, 2011). According to the WHO of India, it is estimated that NCDs represent 53% of all deaths, of which CVD (24%) is the largest part followed by respiratory diseases (11%), cancers (6%) and diabetes (2%). The Prevalence of behavioral risk factors i.e. ongoing smoking and physical inactivity contributed to about 14% (WHO, 2011).

NCDs derive from a conjunction of “modifiable risk factors and non-modifiable risk factors”.

- **Risk factors of Non-Modifiable** - Non-modifiable hazard factors allude to the qualities that can't be changed by a human being (nature) and incorporate age, gender, and hereditary structure. That they can't be the main objectives of the intercessions, they are still vital elements, because NCDs elements influence and decide the effectiveness prevention, control, and approaches of treatment.
- **Risk factors of Modifiable** - Modifiable hazard factors allude to the qualities that companies can modify to develop outcomes of wellbeing. World health organization (WHO) usually describe the four (4) main behavioral risk factors: poor diet, physical inactivity, tobacco and consumption of alcohol.

The risk elements that underlie main chronic non-transferable diseases are much reported and moderately few. These incorporate the utilization of tobacco and use of alcohol a harmful of healthy diet (rich in salt, fats, \$ sugars), inactive way of life (physical latency) and hypertension (PA) that can explain the 75% of these chronic NCD conditions (Ahmed, Hadi, Razzaque, Ashraf, Juvekar & Kanungsukkasem, et al, 2009).

Psychological factors for Cardio-Vascular Disease

i. Perceived stress: According to Selye (1936), "Stress is the non-specific reaction (energy mobilization) that occurs in demanding or challenging situations." Stress is a factor at the individual-level related to ecological phenomena and the procedure of pathological. Stress happens when ecological demands force charge or increased an organization's ability to adapt; the requests translate into physiological or mental procedures that put the organism at danger of illness. Stress measures are imperfect, but perceived stress measures are invaluable because perceived stress explains differences in the assessment of what is unpleasant, exposure of stress and the ability to cope. Perceived Stress is related to direct changes in physiological and mental procedures.

ii. Temperamental/Personality characteristics: Temperament is our inborn personality traits. People interact and react to the environment and experiences are reflective of their temperament in a different style. Friedman and Rosenman suggest that "A Type behavior conducts an effort to lessen a hidden feeling of weakness or self-question. "Type A" personality person "chooses" all the more requesting circumstances and survey their circumstances as more requesting and testing than they truly are; they asses their reaction to these circumstances adversely, expending the requirement for more forceful endeavoring. This forceful endeavoring abandons them in delayed contact with the plain circumstances that incited sentiments of instability in any case, and the cycle is rehashed. It has been studied that "Type A" personality peoples are more permeable to heart illness than "Type B personality peoples. Because the sympathetic nervous system responds to a challenging situation further stress Hormones, fast Heart Rate, higher Blood Pressure (BP). Since the "A-Type" personality person is more demanding and challenging in a different condition, they experience these more intense physiological reactions for longer timeframes every day. Investigations have discovered that Type A people will, in general, keep up elevated amounts of pressure hormones amid sunlight hours, which don't diminish until the point that they have rested.

iii. Lack of Social and emotional support: Social help refers to the arrangement of mental and material assets of an interpersonal organizational intended to promote a person's capacity to adapt to stress. There are three kinds of social help:

- A). Instrumental support includes providing material assistance, such as money related help.
- B). Information help alludes to providing useful information such as guidance.
- C). Emotional help include the statement of sympathy and offers the opportunity to the expression of emotions.

Social support and integration are now recognized as important factors in adapting to chronic and acute illnesses. Support has been extensively and systematically linked to better health outcomes in a variety of chronic diseases in numerous independent studies on the geographic environment, SES, and ethnic backgrounds.

iv. Maladaptive Coping style: A style of coping is a general tendency to deal with stressful experiences coherently. A copy can be adaptive or maladaptive. Adaptive coping strategies usually directly involve problems addressing the realistic evaluation of problems, identifying and modifying unhealthy emotional reactions, and trying to prevent negative effects on the body. Non-adaptive coping can be described, in effect, as no coping.

v. Negative affective regulation: It is an inability to control and express negative or disturbing emotional reactions or experiences in a non-threatening and acceptable manner. In everyday life, people take actions to influence their mood or affective states, either to maintain or to change it. Some of the actions are intended to increase positive affect and some to decrease negative affect (Larsen & Prizmic, 2004).

vi. Negative cognitive schemas: The negative cognitive schema is an interconnected negative internal representation of oneself. It is believed to create through early childhood experiences and remain inactive until it is activated by negative life occasions (Beck, Rush, Shaw, & Emery, 1979). Negative cognitive schemas are cognitive schemes full of negative interpretations of occasion that make a background for various disappointments in life that influence adaptations with circumstances and people.

According to the National Sample Survey Organization 60th round, NCDs in India were responsible for 40% of hospital stays with an out of pocket expenses of 47.3%. Annual income loss to households associated with NCDs was roughly Rs.280 billion in India. The joint report by WHO and World Economy Forum estimated the income loss as \$8.7 billion in 2004 and likely to increase \$54 billion by 2015 (Nandan et al, 2011). Recently, the Health Ministry has organized an incorporated national program for the control and prevention of CVDs models and ailments (Cecchini and Sassi, 2012). Tamil Nadu and Kerala, have identified the control and prevention of chronic diseases. At the 65th World Health Assembly (WHA) in May 2012, the 194-member state of the WHO (World Health Organization) approved a historic goal to decrease premature deaths from NCDs by 25% by 2025. The other eight global goals include prevention (smoking, physical inaction, alcohol, excessive salt intake, high BP, and diabetes) and wellbeing framework reaction (enhancing the availability of drugs and prevent the attack and stroke). (Alleyne, Binagwaho, Haines, Jahan, Nugent, Rojhani, and Stuckler, 2013). An integrated viewpoint to monitoring danger factors is important for non-communicable diseases. The monitoring of NCD's hazard factors, at a present time practiced in India, has largely used different definitions of work and examined groups of various age, hence the need to have global vision Risk factors for NCD using a methodology standard to ensure comparability. In this way, the data are used in the formulation of the population-based procedure to perform cost-effective interventions both for individuals at high hazards for improving the ailment, which would support prevent significant morbidity and death rate from the cause of Non-Communicable Disease. The WHO has developed tools to measure the burden of NCD risk factors and health organizers are using them to generate incidence testes.

METHOD

Online literature databases (e.g., Google Scholar, PubMed, MEDLINE, Scopus, Google.) were screened following standard search strategy having the appropriate keyword such as “Cardio Vascular Disease”, “Perceived Stress”, “Psychological Factors”, “Maladaptive Coping Style”, “CVD”, “Non-communicable Diseases”. Studies published till 2013 were included without language restriction. These studies include case report, case Studies, and any other which reported CVD and Non-communicable disease.

REVIEW OF LITERATURE

People who die prematurely due to non-communicable disease die from diabetes, stroke, cancer, heart disease, and asthma that are preventable due to increased levels of exposure to tobacco consumption, physical inactivity, unhealthy diet, harmful use of alcohol, stress, lack of emotional and social stress. Support maladaptive script style, personality characteristics, etc. and ineffective and unjust medical care services for people with NCD. Risk factors associated with NCDs have been studied by researchers around the world. Nehra, Sharma, Gazanfari, Margoob, Mushtaq, Kumar and Nehra (2012) administered a study to assess mental stress (depression, nervousness, perceived stress) in patients with CHD (Coronary Heart Disease) and to compare levels of among CHD patients with CHD live in disturbed condition in Kashmir and a normal population in Haryana state. The outcomes uncovered a high predominance of nervousness, depression and perceived stress in the investigation groups from Haryana and Kashmir. Dissimilar to Haryana, feelings of anxiety among patients with coronary heart illness and free from sickness controls in the Kashmir population demonstrate no significant difference. Correlation of depression between the two-state investigation groups did not a manifest important difference. A further correlation among stress and nervousness in the 2- state control groups uncovered an extremely noteworthy difference. Based on the findings, they concluded that enhanced discovery of the Kashmirian community to hurtful events or stressful situation increased levels of emotional stress, negatively affecting the mental condition of chronic heart disease (CHD) and concerning the general population, increased risk of developing problems of psychological due to highest level of psychological disorders. Another study by Nabi, Singh-Manoux, Shipley, Gimeno, Marmot, and Kivimaki (2008) to assess the mental elements influence inflammation procedures to an extent that develop the risk of Coronary illness (CHD). They utilized 6396 government employees (4453 men and 1943 women) from the Whitehall II Study, and the age of 35 to 55 years free of any clinically approved at the beginning of the CHD follow up. Two mental variables were evaluated in stage 1 (1985 to 1988) and stage 2 (1989 to 1990): negative affect and mental distress. Inflammatory biomarkers (fibrinogen, C-reactive- protein with high sensitivity interleukin-6) and 12 sub-parts of baseline, including risk factors for hereditary and behavioral coronary disease demographic elements and stress work were calculated in stage 3 (1991 to 1993). Monitoring death from coronary artery disease non-fatal infarction first angina happened between stage 3 and stage 7 (2003 to 2004) was dependent on clinical record. The finding of coronary heart illness and resulting demise was identified with conjugal status in an investigation dependent on 1,368 patients, most are men (Williams et al., 1992). Singles more than three times have a probability of death in comparison to married people or who intimate with opposite-sex relationship status and cardiac events also attached with this study by case et al. (1992) which clearly shows the gradual increase in deaths. From a further study on man (100) and woman (94) for Myocardial infarction who were hospitalized, the result shows that death

trouble that there is a relation of social support by the patients. (Berkman, Leo-Summers, & Horwitz, 1992). They find out 16 people show the main reason for emotional support. After a study of data samples, the result comes out the man and woman with one, two and many come out different. There was a reliable example death rate, the biggest of which was related to social disconnection and the most reduced of which compared to at least two or more sources of emotional togetherness, instead of different parameters like age, sexual orientation, co-morbidity, and seriousness of Myocardial infection. Most stress-related research of predisposing factors for atherosclerosis-related to type A behavior pattern. (Friedman & Roseman-1959) identified as type A those people whom they characterized as being unusually aggressive, competitive and work-oriented and have a constant sense of urgency about their activities. So they have more incidence of heart attacks 'A cross-sectional research' done according to Kishor et-al (2012) To find out about the prevalence of common life-style diseases and their risk factors, it contained 450 men interviewed in the age group of 35-45 years of the Patel colony in the city of Jamnagar. They found that 71.33% had Type A personality. Weeke, Juel, and Vaeth (1987) reported a 50% increase in cardiovascular disease deaths among dejected (sad) patients compare with the normal community. studies show that depression of subsyndromal is also concerned with a remarkably higher probability of cultivating cardiac decease, and is expected to be added to conventional hazard factors of CI (Jiang, Krishnan and O'Connor 2002) with major depressive disorder (MDD), I am very likely to have myocardial infarction (MI) sudden fatal or non-fatal death or experiencing compared to patients without depression (Barth, Schumacher and Herrmann-Lingen 2004) more recently, a meta-analysis of 28 longitudinal investigation involving almost 80,000 ill person (Van der Kooy, ett all. (2007) confirmed that the "depressed mood" has significantly increased the risk of various cardiovascular diseases, while patients clinically determined to have major depressive disorder had the highest risk of the advancement of Cardiovascular disease.

CONCLUSION

Although psychological factors play an important role in Cardio Vascular Disease (CVD), it seems that further researches are needed in this regard. Psychological factors are perceived stress, maladaptive coping style, Lack of emotional and social support, negative effective regulation, personality/temperamental. Psychologists help patients in their recovery of Cardio Vascular Disease by removing these psychological factors from their life through counseling and psychotherapy.

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