



## **MEDICAL SYMBIOSIS OF CARDIOVASCULAR DISORDER AMONG MASSES IN PAKISTAN VERSUS WESTERN COUNTRIES**

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### **Abstract:**

Cardiovascular disorder is a primal health diagnosis that is aligned with the malfunctioning of the heart, when exposed to stress, anxiety, depression, PTSD disorder in an individual, often gluten measures of diagnosis are mal-function of contraction and refraction reflexes of the heart in a human body when contacted with low hygienic diet, cholesterol increment, and psychological distress of an individual heart might get exposed to minor attacks and seizure in the process which if not cater precisely lead to pre-dominical epidermal responses leading to heart attacks and inflammation in arteries. Heart diseases are common in the present time because of the divergent environment and society we live in. generally, there isn't any age limit or restriction associated with it. The fatality rate of heart ruptures and attacks is frequent among children on several occasions and events as they strive to cope with a competitive lifestyle and diet. It is cited that children associated with a middle or lower grass root family exhibit heart attacks and cardio-vascular disorientation.

### **INTRODUCTION:**

Cardiovascular disorder is one of the prime notions of indicating death among general masses residing within the contemporary world. It may occur due to the unjustified induction of food consumption, and high cholesterol level which interim causes inflammation, low contraction, oxygen delivery, and minor heart attacks. According to the

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CDC enshrined as the center for disease control and prevention, “heart disease leads to seizures and cardiovascular failures leads to 4 out of 1 death in the United State accounting for six hundred ten thousand deaths in a year.” It’s approximately cited that nearly 735,000 masses die from a heart attack in the USA. Some genetic factors can contribute, but the disease is largely attributed to poor lifestyle habits. But pre-dominant factors include irregularity in physical movements, smoking, drug addictions, and high mental abuse of stress and disoriented living.

The origin of heart diseases was first discovered in 1203 B.C when pharaoh Merenptah died of atherosclerosis disease which was identified 3,500 years later by the American Heart Association meeting in Florida in 2009. (American Heart Association News, 2020, April 28). Atherosclerosis was later defined as a cardiovascular disease caused by the narrowness of the arteries in the human body. To be precise, the extent to show the origin of cardiovascular disease is debatable in many contexts of human civilization. Some argue that emergences of cardiovascular and coronary artery disease are hard to explain rather than verify, but it's more convenient to name Leonardo da Vinci an explorer for harboring the findings of coronary arteries defects in a human body. Whereas William Harvey is known for being king Charles I physician, who interim discovered the circulatory motion of blood through vessels from the heart to all organs of the body. Later on, the discovery was named the circulatory system, or a blood circulatory track responsible for oxidizing and traveling blood in a human. By discovering the coronary heart reflex in the human body it was easy to determine its drawbacks leading to an unhealthy specimen death, which was evaluated by Friedrich Hoffman in the 16<sup>th</sup> and 17<sup>th</sup> centuries. Coronary heart disease was labeled as a disease caused by the reduction of blood flow from the heart within the coronary arteries. (Story, 2018).

### **SCOPE OF STUDY:**

The main clause of the research article will be to analyze general reparations of cardiac disease in Pakistan among children and adults as compared to the west. With references to certain case studies, Pakistan faces challenges in treating cardiac patients without consequences and treatments inscribed globally in the west.

### **RESEARCH QUESTIONS:**

1. What are the adherent responses of Pakistan in treating cardiac patients and children over the symptoms the psychology factors and balanced diet?



2. What are the analytical standpoint of cardiac and secondary heart disease leading to such psychological fears and disorders in children and adults in Pakistan as compared to the west?
3. What is the role of the government hospitals in addressing and assisting such diverse disorders over victimize communities at a long run pace how does it facilitate the consequence of the heart problem infant and adults in Pakistan over Pakistan health expenditure.

### **LITERATURE REVIEW:**

#### **PRE\_DOMINANT CAUSE OF CARDIOVASCULAR DISEASES IN A HUMAN BODY**

Cardiovascular disease is connected to the walk and off-balance of people living in society. The way people emphasize their diet determines how much steady and healthy life are they prompted to contribute to their heart span.

Genuine cardiovascular or heart fatality disorder is caused by high blood stimulus in a human body, along with coronary artery disease, and irregularity of heart rate and saturation in a human body. It is estimated that about a total of 17 million heart fatality is recorded yearly. In the United States, cardiovascular disorder is contributed as the second leading cause of death. More than 80 percent of American national suffer coronary artery disease in a long run.

- **Hypertension Syndrome in Children**

Hypertension also contributes to incubating cardiovascular disease and other coronary artery failures, seizures, stroke, and heart punctures. Although defaulted measurements of blood level lead to stabilizing hypertension syndrome in 80/120 stratified living standards and competitiveness in the locality tends to create superficial stress and GAD disorders leading to futile trust and breathing issues and trauma children and adults. Clinically it determined that's chronic hypertension, short for (HTN) is a normalized agent in adolescents and children. Also, cardio-vascular includes epidermal relapse such as obesity, stage 2 diabetes, and kidney mal-functional syndrome. Children having hypertension are often diagnosed with left ventricular hypertrophy and congenital heart disease (development of premature atherosclerosis), leading to stagnant heart failure in children.

South Asia is the most prominent region registered for having a predominant population. Approximately  $\frac{1}{4}$  population of south Asia suffers from dilemmas health issues.



Topographical studies have shown that South Asian people are more exposed to cardiovascular disease than any other identities residing in the region. It is estimated that about 27 percent of CVD deaths worldwide happen in the south Asian region of Pakistan. Likewise, the risk and prevalence of coronary artery disease are also considerably high in South Asians than in European populations.

- **Air Pollution and Core-Related Blood Pressure:**

Air pollution is also related to the fraction responsible for causing cardio-vascular disorder in children. Air pollution is a severe health hazard caused by the emission of fossil gases from locomotive engines. According to a cross-sectional study of the relationship between high blood pressure and air pollution among school children in Lahore, Pakistan it was founded that the age of 8-12 years children had particles like PM10 and PM 2.5, along with high blood pressure rate and heartbeats, as a result, it was determined that children a high exposer to traffic had a higher risk of getting systolic and diastolic blood pressure ranging from 115.9/70.9mm in a densely polluted area till 108.3/66.4mm in a lower density area of air pollution. The contraction of blood pressure lead to the high level of sodium and potassium particle present in the body as there were urinary samples taken by the researchers to just the point. The meta-morph indulged the conclusion that cardiovascular diseases are subjects caused by high blood pressure caused by the environmental changes in an area exhibiting the pollutant (air pollution) generated.

Moreover, Pakistan is a state having a dense population that contributes to the inclination of having heavy traffic and smog within its overpopulated areas which increases the density of air causing adherent problems of breathing like asthma, lung, and respiratory problems. (Muhammad Sughis 2012).

- **High Cholesterol and Fast-Food Consumption In Children:**

The increase of high cholesterol levels due to fast food consumption has increased dramatically worldwide. Typically fast foods are defined as “Enriched saturated fats and artificial flavoring offered by the restaurants over a pre-heated procedure and served to a variety of classes worldwide and in Pakistan. According to the national health survey, it is profoundly testimonial to say that the high level of hydrations of sweet beverages elevates the risk of cardio-vascular disorientation due to the arisen bad cholesterol level and obesity in the human body. The USA yet alone contributes about sixty-eight percent for the annual obesity and high cholesterol rates yearly. Obesity is a global epidemic that affects school-going students with the estimate of 10% of small-aged children being overweight and a quarter of them being obese over the world. (Hayyat, et al., 2019).

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According to MacDonald "McDonald's happy meals and fries consist of about 475 calories of fat invested in it with the addition of 1 percent of low-fat milk, sugar. (Nestle, 2011, July 27). Which consumed regularly leads to stomach aches and an increase of fat in the epidermal section of children's bodies.

Moreover, according to the WHO reports on Coronary death, published in 2018, it was cited that about 20.28 percent of cases of death are recorded from Pakistan. Making it the eighteen populace state in the world that has a heart pandemic.

- **DIABETES AND SMOKING**

Another cause of cardiovascular disease is diabetes. Diabetes makes your blood sugar levels high which causes the risk of cardiovascular disease. The habit of smoking or use of any type of tobacco can increase the risk of cardiovascular. The harmful substances in tobacco damage your blood vessels, increasing the risk of cardiovascular disease.

Cardiovascular disease compromises many unusual rhythmic conditions, creating turmoil within the heart's functional di-methodology and causing it to shut down. The disease that is connected to cardiovascular disorder is mentioned below.

1. **ANGINA** is a type of inflammation or pain in the chest caused by the minimal amount of blood compression in the heart.
2. **CONGENITAL HEART DISEASE:** it is a problem of malfunctioning the heart since birth.
3. **CORONARY ARTERY DISEASE:** It affects the arteries responsible for contraction and nutritious transmission of subtle substances in the heart.
4. **HYPERTROPHIC CARDIOMYOPATHY:** it is an issue in which muscular walls of the heart thickens up and causes futility in the compression and wall narrowing problems of the artery responsible for the blood flow, and electrical instability.
5. **ARTERIAL FIBRILLATION:** arterial fibrillation is denounced as the irregularity of heartbeat causing stroke in the human body.
6. **RHEUMATIC HEART DISEASE:** rheumatic [heart disease](#), a complication of [strep throat](#) that causes [inflammation](#) in the heart and which can affect the function of heart valves

Apart from these metamorphic changes, cardiovascular disease is also responsive in generalizing sub-dominion disease like the Mitral regurgitation and Mitral valve prolapse in the process which causes a leakage of blood in the left atrium of the heart during contraction.



Also, pulmonary stenosis, in which a narrowing of the pulmonary artery reduces blood flow from the right ventricle (pumping chamber to the lungs) to the pulmonary artery (a blood vessel that carries deoxygenated blood to the lungs) and aortic stenosis, a narrowing of the heart valve that can cause blockage to blood flow leaving the heart are a genuine example of causing or escalating cardiovascular disorder in a humanoid system. It is feasible to befit to say that vascular disease within the blood circulatory system affects the functioning of the vein, arteries, and capillaries.

### **SYMBIOSIS OF CARDIOVASCULAR DISORDER IN CHILDREN: CASE STUDIES**

Cardiovascular disease is an essential category of vascular disease that causes substantial mortality and morbidity rates in children under the age of 5-6 years. The statistical measure of children dying from heart diseases is up to 86 percent in Pakistan. Whereas infant death cases in Pakistan are recorded to be 44% due to congenital heart disease. Congenital heart disease is a primary heart disorder caused in the infant which enacts comprehensive oppression over the arterial line of the heart segment in an infant, causing about the death of every case out of 1000 births in hospital. One of the simplest causes of cardiovascular death in children is the delivery of a child in home settlements which causes clinical abundance. It is estimated that about 11 percent of babies die from the neo-natal mortality section when there snopily a month old. Asymmetric symptoms of cardiovascular failures in an infant include irrational cyanosis, clubbing of toe or hand nail, and acute expansionism of cognitive heart failures. (Mohammad, Shaik, Memon and Das, 2014).

- **CONGENITAL DEFECTS IN CHILDREN (INFANTS)**

In a contracted measure congenital cardiovascular disorder by birth in children is approximately thirty percent in total facets. Chronically, the prevalence of infant death due to cardiovascular disease and other imperative heart disorders is 4 in every thousand birth rates. A congenital heart defect is the most common heart defect caused in children. A formidable statistic evaluation elevates that congenital heart defect prompts up to most efficient, prime factor was causing a ventricular septal disorder in an infant up to the measurement of 14 to 16 percent whereas the tetralogy fallout is about 9 to 14 percent. During the years 2000, it was cited that there were about one thirty thousand cases of infantry with CHD registered and hospitalized. Causing the economic expenditure of 6.5 billion in medical assistance.

However, in the USA cardiovascular disease is common in less weighted infants weighing less than 2500 g. 36000 means 9 out of every 1000 infants is prematurely cited as a CHD



defect in the United State. Also, about five percent that's the equivalent of two thousand infant specimens are contracted with having an invasive surgery and small muscular ventricular defect. (Tom-Revzon, Arnold & Schwartz, 2007).

- **COVID\_19 AND RESPIRATORY DEFECTS AND HEART FAILURES OR ISCHEMIC HEART DISEASE:**

The COVID 19 spread in Wuhan, China, started a worldwide pestilence, which the World Health Organization proclaimed a general well-being crisis of global worry on 31st January 2020. (World Health Organization, 2022) This emergency has pulled in extraordinary media consideration. As of late, some news sources improperly named the Covid by race, utilizing such features as "Chinese infection disorder" and in any event, proposing "China kids remain at home." The one-sided and deceiving inclusion introduced through Western media channels has impelled outrage all through the Chinese people group and has set unnecessary worry upon Chinese people living in external China. While the focal point of 2020, as far as the Covid pandemic, has justifiably been on physical wellbeing, new exploration has demonstrated that the circumstance has greatly affected our psychological and enthusiastic wellbeing than first foreseen as well. (Noorali, et al., 2021) Covid-19 has been accounted for stinging a mild-phobic issue of ischemic heart disease and provisional scarcity among patients. Covid -19 and its delta variants had been profoundly responsible for imprinting obtuse overloads and health discords on disease bi-related to economic stability in low-middle income countries. In Pakistan, it has been cited that about 13.63 percent of cases of congenital heart defect has been recorded in covid sessions and about 15.31 percent of all the covid cases have had been infected with ischemic heart disease (IHD) in Pakistan

<sup>[1]</sup>According to the international committee on taxonomy and virus, respiratory syndromes like SARS-CoV-2 are caused by the virus COVID-19 which was derived by the WHO on 11 February 2020. And by the end of 25 may 2020 WHO recorded the rate of mortality deaths up to three forty-two thousand and seventy cases due to the SARS-CoV-2 virus. (Atif & Malik, 2020).

- **THE MIRACLE CHILD AND CONGENITAL HEART DISEASE:**

Ayesha and Nasser were a couple that after a consecutive attempt gave birth to a lovely boy half a year ago, but the boy was diagnosed to have CHD as he had an abnormal heartbeat from birth. But the boy ironically survived the disease due to early diagnosis by the doctors at the AGHA KHAN HOSPITAL (AKUH). After a power struggle for two months, Haroon was treated and survived. If the child wasn't diagnosed with an immediate





response from the welfare hospital the well-being of Haroon wasn't possible to succeed. However, Haroon was found eligible for the treatment and was named a miracle child. Now Ayesha is dedicated to running an adherent welfare program at AKUH and urges people to take matters seriously over CHD measures over children by monitoring their diet and lifestyle.

### **CARDIOVASCULAR DISEASE AND DIVERGENT DISEASE AMONG CHILDREN AND ADULTS IN PAKISTAN VS THE WEST:**

In the earlier history of medicine, cardiac diseases in children were focused on the rheumatic fever heart disease in the nineteen-thirties, however serious concerns over cardiovascular disorder formed in the 1940s and cardio-logical operation were trumped for the evaluation of cardiac malformation disease among children which gave instrumental guidance for the making of open-heart surgical surveillance practical in the nineteen fifties. During the advent of the 1970s pediatric open-heart surgery was introduced involving cardiopulmonary bypass of children to nomadic infants. While in the 1980s -90s echocardiography and therapeutic procedure were used on children having an irregular heartbeat and cardiac abnormality. Which later on improvised the diagnosis of CVD and CHD disease in newborn offspring. In addition, pediatric cardiologists now recognize the need to slow the development of atherosclerosis, a process that often begins in childhood. (Moller et al., 1994)

Cardiovascular disease often occurs among children, approximately at the count of six hundred thousand children in the USA suffer from cardiovascular disorder and about four hundred and forty thousand children suffer from cardiac malformation. Also, it is estimated that under the age of 21 eighty million children suffer from atherosclerosis (coronary artery disorder and stroke).

- **Rheumatic Disorder and Disease Among Children.**

Rheumatic heart disease is defined as a disease in which heart valves are maturely infected and damaged by rheumatic temperature or fever. Rheumatic fever is caused by inflammation in heart valves, which creates havoc and seizures, and raptures of the tissues. Rheumatic disorder if untreated causes a high infection rate in the body damaging the blood flow in all parts of the body (University of Rochester Medical Center, 2022).

Rheumatic heart disease and Rheumatic fever are catastrophic turmoil in Pakistan. Rheumatic fever is one of the major causes that lead to premature deaths in Pakistan. A society-based analysis shows that rheumatic disease was a major issue in 1970. (University





of Rochester Medical Center, 2022). At present time rheumatic disease is not much of a common disease for children in the west. Even in Pakistan previous studies have profoundly defined that RHD causes about 6 deaths in every thousand cases in Pakistan. However rural sentiments are vividly exposed to the exposure of Rheumatic disease among children. (Rizvi, et al., 2004).

it is estimated that RHD is found under the demographical statistic approach of the socio-economic status-quo of a personal entity. According to the report published in NCIB, it is notably enacted that about 54 cases of rheumatic heart disease were founded under the sampling of 9430 participants in Pakistan. Females and teenage girls were impacted profoundly in the analysis under the prevalence of 5.7 in 1000 cases. About two percent of the masses were not aware of the RHD disorder before sampling. Among these 54 cases, 8 percent population stats indicated having an RHD prophylaxis. (Johns Hopkin Medicine, 2022)

In Tanzania, rheumatic heart disease and fever are defined as inflammatory reception intact with the distortion of GAS (group a streptococcal) pharyngitis. In developing and second world countries rheumatic heart diseases in children under the age of five to fourteen are caused by malnutrition, self-medicating channels within the family tradition, causing secondary RHD infections. Rheumatic disease is rare in people under 30 or above. (Johns Hopkin Medicine, 2022)

In Tanzania, about twenty-nine to thirty-two percent of cardio-logical surgeries were reported in the year 2017-18 for the cure of rheumatic heart disease in Dar as-Salam (Tanzania). According to the WHF (world heart federation) screening was the prevalent measure to cite RHD disorder.

- **Symptoms of Rheumatic Disease in Children**

Rheumatic heart disorder in children endorses the following which results in the malfunctioning and inflammation in the heart. Primarily symptoms may be randomly identified as an induced reflex. Rheumatic disease in children causes problems in breathing, chest oppression. Edema and heartburns.(Johns Hopkin Medicine, 2022) Along with some cognitive symptoms which include muscle pain, puffing up of the chest, and bronchus. Rashes or rabies bumps present under the skin, fever, and fatigue with mild dizziness and short-sightedness.

According to a cross-sectional procedure in 2008, children under the domain of five to fifteen were sampled from the city of Lahore (Pakistan) to run tests based on a clinical

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screening and echo-cardiograph. Through socio-demographic data, it was enacted that, about the screening of twenty-four thousand nine hundred eighty student positive cases of the cardiac lesion were about 3.9 percent meant about nine hundred and eighty-six sample in total were exposed to cardiac lesion disorder. While five hundred and forty-six students had Rheumatic heart disease and four hundred and congenital heart disease CHD. (Kazahura, et al., 2021).

- **KAWASAKI DISEASE IN CHILDREN**

Kawasaki disease in children is a common disease caused by the inflammation in arterial valves and blood vessel that carries blood within the body. (Mayo Clinic, 2022). Kawasaki disease commonly leads to symptoms of heartache and burning in the coronary arteries which supply oxygenated blood. Kawasaki disease was previously named as “Mucocutaneous” disease which causes lymph node syndrome by swelling of the lymph gland and mucous layers within the mouth, nose, eyes, and throat. (Sadiq, et al., 2009)

Children having Kawasaki disease may indulge in having a high fever, puffy hands and feet with skin allergies. It may also cause burning and redness in the eyes and tongue.

### **POST \_ TRAUMATIC DISORDER LEADING TO CARDIOVASCULAR DISEASE IN CHILDREN AND ADULTS**

Post-traumatic disorder or stress is an elicit response of unusual or distrustful behavior in a human body leading to external and internal issues. PTSD depends upon the evaluation of environmental changes a body exhibits depending upon the intensity of the situation a body experiences psychologically leading to cardiovascular disorder and congenital disorder.

The post-traumatic disorder is a psychological disease that affects about 7-8 percent of citizens daily. Post-traumatic disorder symptoms include stress, anxiety, depression, javelined behavior, and an alteration of cognitive behavior disorder.

According to the AHA associates of medical heart disease. The USA. It is found that children who were exposed to physical abuse and emotional abuse or are into other stress relaxing ways like alcohol consumption may have a higher probability of having cardiovascular disease. It is estimated that about 60 percent of children are exposed to cardiovascular disease and die from it in their mid-adulthood period because of the insurance of having child traumatic experiences.



Cardiovascular disease is a second to none serious disease-causing futile death next to cancer. In the present time, cardiovascular disease is due to stress management and anger issue. Post-traumatic disorder causes high-level CVD and congenital disease in Asian people ranging from 5 to 10 years of age. By conducting prevalent studies in Pakistan, it is cited that children and young teens suffer from PTSD disorder and psychological illness. The psychological factor influencing cardiovascular disease in children and adults in Pakistan are stress, depression, anxiety with a lack of social learning expression, and socialization.

An adolescent growing individual stimulates psychological changes when contacted with severe cardiovascular disease which encounters the stimulation of neurons increasing stress and hypertension which later on influences other psychological and social independent variables. These social and psychological variables such as poverty, social factors like education, and sustainable development goals like housing cause cardiovascular disorder in young adults due to peer pressure and incompetence. (Edmondson & Von Känel 2017)

### **PRIMAL FACTORS LEADING TO CARDIOVASCULAR DISORDER IN RESPONSE TO PTSD.**

Cardiovascular disorder related to biological and psychological factors related to post-traumatic disorder exclusively determine factors depression, anxiety, stress, and social rehabilitatee.

**DEPRESSION:** Depression is profoundly defined as the primal cause of morbidity and mortality in patients having the consistency from coronary disease. Studies have found that depression increases the chances of CHD symptoms in the human body. Depression leads to 20 percent death among individuals having CHD pressures rather than a healthy individual. Depression and coronary heart disease are head to toes duet for causing cardiovascular failure in the human body. Symptom related to depression causing CHD is known as Atherosclerosis. However, depression leading to coronary arterial disease can also be justified by the socialization burden of job stress and maternal relationship which interim to give critical heart condition over women and girls rather than men and bosses.

**ANXIETY:** anxiety is the second leading cause for exposure to CHD in patients, it's an independent variable related to depression. Although systematic studies of anxiety are unclear that how anxiety causes CHD is underrated studies have found that anxiety leads to etiological risk factors in people along with myocardial infarction cardiac disorder and death. A study was conducted by Dr. Roest in the year 2010 which concluded the relationship between anxiety and CHD to be symmetric and direct proportion to one



another. The study also interim that depression was least concerned with CHD rather than anxiety as a response of dilute aggression and mild unconscious response and irrationality were indicated in the patient having the cardiovascular disorder.

From a longitudinal study observed by dr. janky in Sweden for thirty-seven years it was cited that forty-nine thousand three hundred and twenty-one men aged from 18-20 were exposed to anxiety and depression leading to coronary artery disease. The leading cause of anxiety and depression was societal pressure with smoking and drug addictions a result causing high blood pressure and anxiety in men. The research indicated support to the direct relation of depression and anxiety leasing death by the cause of cardiovascular disease.

The intensity of Cardio-vascular reactions within the human body depends upon the low and high leverage of traits exhibited by the emotional and neurological spectrum of the human body. It recorded that the outward behavior index in human action creates a low level of anxiety and anger impulses resulting in an inverse response to cardiovascular reactions. Whereas inert response of human action and behavior leads to high leverage towards anxiety with high leverage of causing cardiovascular disorder at a swift rate.

**SOCIAL LACKING AND CARDIOVASCULAR DISEASE:** Social lacking individuals are also devoted to the formation of cardiovascular disease in the human body causing death and mortality over both gender entities. The ratio of forming cardiovascular disease due to social isolation is higher in women than men which varies from cultural to cultural ethnicity. A psychological factor leading to cardiovascular disorder was centered on the study of behavior patterns in patients having been diagnosed with Ischemic disease under the period of 4 months after discharge. It is was noted that the patient discharged after the treatment of the disease were less socialized than the people diagnosed with the disease and treated on the initial stage as they were inclined toward a more complex treatment. The study also showed that were focused on socialization rather than emphasizing the consequences of their disease.

Moreover, people who suffered from this disease for the first time were seeking social support and coping style more in comparison to those that had a previous history of hospitalization due to ischemic heart disease\_in another study, loneliness, and social support were studied in patients with heart failure (CHF). They realized that loneliness is one of the important risk factors for patients with heart failure, and the more the patients feel lonely the more severe the heart failure is



## **CARDIAC BURDENS AND TREATMENTS IN CHILDREN AND ADULTS**

Cardiovascular disease and its variations are a global burden with the least sustainability goals etc. cardiovascular disease is a prevalent cause of mortality death globally. According to the epidemiological statistic report of the 20<sup>th</sup> century, cardiovascular disease is cited as “Global disability”. It is worth mentioning that Cardiovascular by the time of 2030 will be designated as a pandemic crisis with the foremost mortality rate. Cardiovascular disease is characterized by both conventional and classical instincts. Cardiovascular disease is complex risk futility based on the consumption of living standards, economic and social peer pressure, PTSD in Pakistan. The Asian continent had have been recorded to have high cardiovascular disorder patients in the west.

Cardiovascular disease such as coronary artery and rheumatic disease in Pakistan is cured by the delivery of cardiac surgery. (Zia et al, 2020). Cardiac surgery is defined as a surgical procedure for curing diseases related to the malfunction of the heart and valves with arterial damage of vessels carrying blood to another part of the body. Cardiac surgery in a place like Pakistan is concentrated in metropolitan areas, which at a time get difficult for the rural patient to get access with. It is estimated that more than four hundred patient comes from rural areas to get cardiac surgery in Karachi at the national institute of cardiovascular diseases. (Zia et al, 2020) Whereas cardiovascular disorders in the west or communist state are treated under the regional cardiac surgery department which facilitates the necessities. The initiative was taken by South Korea. Due to this, the US demand for cardiac surgeons is completed in the year 2020. (Zia et al, 2020)

State-of-the-art cardiac surgery was done in Sukkur happened in the year 2018, then 500 cases of cardiac illness are operated on in NICVD Sukkur.

Cardiac surgery is carried out by intensive care unit procedures involving heart bypasses and transplant surgeries (Zia et al, 2020). These surgeries are carried out in a multi-verse environment of a cardiac specialist. Worldwide cardiac surgeries include.

**CORONARY ARTERY BYPASS GRAFTING or (CABG):** This procedure involves the simultaneous transfer of fully functional arterial jugular vein from a different part defying the body’s abnormal matrix. While connecting it to the coronary artery connected with the primal bloodline. The newly connected vein creates a new passage for the normal flow of blood manifesting heart muscle to regenerate and amplify the rational heartbeat without dropping the blood pressure of the human body. (Khayyam-Nekouei, et al. 2013).



**REPLACEMENT OR REPAIRING THE HEART VALVE:** This procedure requires surgeons to replace an artificial arterial valve with a bio-degenerated one which is a tribal risky and breathtaking procedure. It is observed that patients having a pulmonary hypertension stance can't endure the procedure which reduces their lifespan to immediate death. The consequence of how much the valve replacement will succeed the global survival rate depends upon the premature assumption that which valve is included and excluded for the procedure. The replacement of the valve removal increases the chances of the probability of living up to five years. According to statistics, the efficiency of heart valve removal depends upon the type of surgery a patient underwent through. Globally, replacement of heart depends upon the data of five years to ten-year survival rates. As a pre-defined assumption, aortic valve surgery has a five-year replacement rate of 94 percent which decreases to ten percent after its leverage towards a ten-year survival rate. Similarly, mitral valve replacement surgery has a 64 percent of possibility that the patient would mark up to the standard of a five-year survival plan. Pulmonary arterial valve removal has the highest streak of survival rate which is 96 percent for the 5-year plan and 93 percent for a ten-year survival rate. (Liaquat, & Javed, 2018).

**MEDICATION AND IMPLANTABLE CARDIOVERTER-DEFIBRILLATOR:**

Medicine is usually the first treatment option for arrhythmia, a condition in which the heart beats too fast, too slow, or with an irregular rhythm. If medication does not work, a surgeon may implant a pacemaker under the skin of the chest or abdomen, with wires that connect it to the heart chambers. The device uses electrical pulses to control the heart rhythm when a sensor detects that it is abnormal. An ICD works similarly, but it sends an electric shock to restore a normal rhythm when it detects a dangerous arrhythmia.

**MAZE SURGERY AND ANEURYSM REPAIR:** Maze surgery is the re-modification of scar tissues inside the upper chamber of the heart that are responsible for blocking an electrical transmission response caused by atrial fibrillation. Whereas aneurysm repairs the heart walls by patching or replacing bulges present within the heart muscles.

**HEART TRANSPLANTS AND VAD ASSISTANCE:** In this process, the infected heart is removed by a healthy one whereas the ventricular assist device capably known as the artificial heart is implanted in the body it's a sort of a pumping mechanism that regulated heartbeat and metabolism of the heart to circulate blood in all parts of the body. The diseased heart is removed and replaced with a healthy heart from a deceased donor. (Shaikh, 2020, October 23).

**CARDIAC SURGERY AND BARRIERS AND VITALITY IN PAKISTAN FOR ITS SUSTENANCE IN CHILDREN AND ADULTS**

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When it comes to health hazards regarding heart diagnosis Pakistan does suffer a lot of tranquility due to its unstable financial support of hospital expenses. Due to the crowded population span, Pakistan has a middle-income status. The public domain and sector in the rural area suffer from heart disease in Pakistan having a large population of children and women suffering from CHD symptoms. Lahore is designated for having the biggest cardiac ward in Pakistan but lacks proper acquaints and equipment for sub- dominical treatment. Pakistan is regarded as having the largest CHD death rate in South Asia. According to BBC statistics,” about forty to fifty thousand children are diagnosed with heart deficit in Pakistan due maternal issues and lack of hospital equipment like ventilators and sterilized instrument. (Gallagher. 2017, March 18)

Diabetes is also underrated that increases the chances of children having cardiac problems. In Pakistan the chances of mothers getting vaccinated before their delivery process also increases the chances and probability of inducing cardiac problems during child development. It is estimated that in Pakistan there are very less cardiac surgeons available for diagnosis at times making cases complicated.

Each year about a fifth proportion of Pakistani children need cardiac surgery. As the country’s only resource for making the surgery possible. Profoundly, we are living in a country having 0.9 percent of the annual budget on health in which 3 percent of the budget is only used in the public sector. Which often makes a complicated mass deteriorate when it comes to diagnosing, performing, and amplifying a child or adult condition having a severe cardiac problem.

Apart from health consultancy of the patient appearing for the surgery. In Pakistan medical funds invested in a cardiac surgeon is also futile, which means cardiac patients aren't paid much more than they deserved. As Dr. Salman Shah has said in his interview to BBC “often it gets frustrated, having children in your hospital for a cardiac treatment but you can’t facilitate them due to the lacking of technological infrastructural system. And many cardiac surgeons after their housework assessment reside in the Middle East for better expenditure and experience. That’s the reason why Pakistan needs a cardiac specialist. Lahore governmental hospital is recorded as having 8000 children each year for cardiac surgery but the rate of having those kids get treated with cardiac surgery is limited. Also, according to Salman “Three to four thousand children are only treated with a cardiac surgery successfully in a pile of twenty-five thousand children each year in Lahore.

## **DISCUSSION:**





Cardiovascular disorder is a primal health diagnosis that is aligned with the malfunctioning of the heart, when exposed to stress, anxiety, depression, PTSD disorder in an individual, often gluten measures of diagnosis are mal-function of contraction and refraction reflexes of the heart in a human body when contacted with low hygienic diet, cholesterol increment, and psychological distress of an individual heart might get exposed to minor attacks and seizure in the process which if not cater precisely lead to pre-dominical epidermal responses leading to heart attacks and inflammation in arteries. Cardiovascular disease is cited as “Global disability”. It is worth mentioning that Cardiovascular by the time of 2030 will be designated as a pandemic crisis with the foremost mortality rate. Cardiovascular disease is characterized by both conventional and classical instincts. Cardiovascular disease is complex risk futility based on the consumption of living standards, economic and social peer pressure, PTSD in Pakistan. It is estimated that more than four hundred patient comes from rural areas to get cardiac surgery in Karachi at the national institute of cardiovascular diseases. Whereas cardiovascular disorders in the west or communist state are treated under the regional cardiac surgery department which facilitates the necessities. The initiative was taken by South Korea. Due to this, the US demand for cardiac surgeons is completed in the year 2020. Cardiovascular disease is complex risk futility based on the consumption of living standards, economic and social peer pressure, PTSD in Pakistan. The Asian continent had have been recorded to have high cardiovascular disorder patients in the west.

### **RECOMMENDATION:**

1. Cardiovascular disease may be a deficit danger to the people due to its symptoms and lack of treatment but it isn't something that can be cured, primarily cardiovascular disease is caused by the implicit diet we consume making fatty layers on the part of the body suffers associated with the control of blood pressure and cholesterol level. Which can ironically be prepared by self-diet or dash diet.
2. Psychological distress and peer pressure is accumulated has the cause of the cardiac disorder which can be reduced by cognitive test and anti-depressed medicine that offshore the amplitude of heart attack and heart failure in children and adults
3. Public awareness and government funding should be enacted towards the possibility of providing sustainability to the crucial morbidity and CHD death rate in children and adults
4. The intensity of Cardio-vascular reactions within the human body depends upon the low and high leverage of traits exhibited by the emotional and neurological spectrum of the human body so the patient should have a proper diet cycle consulted with the cardiologist. A balanced diet and reduction of fatty foods in diet reduce the release of stress hormones indirectly leading to deficit heart attacks



5. Medicine is usually the first treatment option for arrhythmia, a condition in which the heart beats too fast, too slow, or with an irregular rhythm. If medication does not work, a surgeon may implant a pacemaker under the skin of the chest or abdomen, with wires that connect it to the heart chambers. The device uses electrical pulses to control the heart rhythm when a sensor detects that it is abnormal. An ICD works similarly, but it sends an electric shock to restore a normal rhythm when it detects a dangerous arrhythmia.
6. Governmental funding should assist cardio- studies have filed in medical sciences to engulf general and rural masses on campaigns to facilitate them from cardiac malfunctions and explain to them that viral symptoms like inflammation, stress, depression shouldn't be taken lightly

7.

#### **METHODOLOGY:**

This article is based on a collection of secondary resources such as books, essays, wiki books, e-books, and articles and works. With relevant references, a standard analysis method is used to report the opinion of cardiac diseases and Pakistan financial and medical practices in treating the disease in adults and children. Surveillance and Analysis the analysis is based on the historical consultant's view of the discovery of stress and mass medical production and the preservation of medical and negative ground interest.

#### **CONCLUSION:**

Cardiovascular illness is referred to as "Worldwide inability". It is worth focusing on that Cardiovascular is assigned as a pandemic emergency with the premier death rate. Cardiovascular illness is described by both ordinary and old-style senses. Cardiovascular illness is mind-boggling hazard worthlessness in light of the utilization of expectations for everyday comforts, monetary and social friend pressure, PTSD in Pakistan. It is assessed that multiple hundred patients come from country regions to get heart medical procedures in Karachi at the public establishment of cardiovascular infections. Though cardiovascular problems in the west or socialist state are treated under the provincial heart medical procedure division which works with the necessities. The drive was taken by South Korea. Due to this, the US interest in heart specialists is finished in the year 2020. Cardiovascular infection is perplexing danger pointlessness in light of the utilization of expectations for everyday comforts, financial and social companion pressure, PTSD in Pakistan. The Asian landmass had have been recorded to have high cardiovascular problem patients in the west. . In Pakistan medical funds invested in a cardiac surgeon are also futile, which means cardiac patients aren't paid much than they deserved. Cardiovascular disease is an essential category of vascular disease that causes substantial mortality and morbidity rates in children under the age of 5-6 years. The statistical measure of children dying from heart



diseases is up to 86 percent in Pakistan. Whereas infant death cases in Pakistan are recorded to be 44% due to congenital heart disease. The imperial death rate of cardiac death in Pakistan and the west among children and adults deem the fact that economically deprived countries or struggling countries like Pakistan suffers a lot of criticism when it comes to cardiac treatment among the public masses.



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