



Psychocardiology: Recognizing and Addressing the Profound Impact of Psychosocial Factors on Cardiac Health

KEYWORDS

Psycho-cardiology, Non cardiac chest pain, psycho social factors, Risk management and psychological intervention

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ABSTRACT *Psycho-Cardiology is one of the fields which is playing a very important role in investigation, management, treatment and therapy for both cardiac and non-cardiac disease and issues related to pain with cardiac and non-cardiac ailments. Psychosocial issues are important variables that need to be addressed in patients with cardiac ailment or issues related to heart disease. Unfortunately, these issues are often overlooked. Depression, anxiety, stress and lack of social support have been shown to have a negative impact on patients. Patients with heart disease who are anxious, stressed, depressed, or who lack social support have been shown to have increased morbidity and hospital readmission rates, to be less adherent to their medical regimen, and to have an overall increase in cost of care. The variables are often interrelated, as high levels of social support may lessen the impact of depression on mortality. In addition, certain biologic factors may influence the impact of psychosocial factors in patients. This review addresses the issues related to risk management and addressing the importance of psychological intervention on treatment adherence, and social support in patients with cardiac issues and suggests interventions targeted to these problems. Health care professionals must assess these issues in all patients with cardiac ailment, address their specific needs, and intervene appropriately when warranted.*

Introduction

The term "psycho-cardiology" contains the scientific knowledge with regard to psychosocial factors of the emergence, the course, the rehabilitation and the illness processing (coping) of cardiac diseases.

Probably there is no psychosocial topic with so many presumably methodically high standing (namely representative prospective and controlled) long-term studies and so many reviews or met analyses as we have for cardiac diseases, particularly the coronary heart disease. The knowledge on psycho-cardiology is extensive, incoherent and contradictory and in so far incalculable.

Cardio vascular disease (CVD) is the world's leading killer, with modernization, a large population of Asians are trading healthy traditional diets for fatty foods, physical jobs for deskbound sloth, the relative calm of the country side to stressful city. Heart attack victims are just the first wave of a swelling population of Asian with heart problems. While deaths from heart attacks have declined more than 50 percent since 1960s in many industrialize countries, 80 percent of global CVD's related deaths now occur in low and middle income nation which covers most countries in Asia.

In India, in the past five decades, rates of coronary disease among urban populations have risen from 4% to 12% . A report released by the Earth Institute at Columbia University warned that without sustained effort on individual and national levels, the heart disease epidemic will exact a devastating price on the region's physical and economic health.

Professor Philip Poole-Wilson, president of the World Heart Federation, expressed his concern with these words.. "We're trying to warn people sufficiently early so that they can do something about it, but this isn't a disease you can cure by turning on an electric switch." These words really express the future fear about the health issues related to cardiac disease if people do not follow precaution and also treat themselves accordingly there are chances of severe emergencies in all age groups.

The World Health Organization (WHO) in 2010 had estimated that 60 percent of the world's cardiac patients will be Indian. Now the greater concern is about not just the CVD related issues and death in India, but also the psychological factors which are being the root cause for chest pain and cardiac related ailments, these are leading to various other complications and if these are not looked into seriously with proper investigation and treatment, then it may lead to various major health issues.

Psycho-Cardiology is one of the fields which is playing a very important role in investigation, management, treatment and therapy for both cardiac and non-cardiac disease and issues related to chest pain and also cardiac and non-cardiac ailments.

Psycho cardiology roots go back to the 1920's, say Jordan and his fellow contributors, when research began on the psychosocial characteristics that can threaten heart health. Since then, they say that some researchers have focused on internal risk factors .Psychological problems like Stress, Anxiety, and Depression and Type A behavior pattern, also social factors like economic status, disturbances at work place, family problems and social isolation etc , seem to predict both the development of disease in healthy people and complications in those who are already suffering with the illness. A thorough reading from various books, journals, articles and also from hospital records show a great number of cases related to cardiac and non-cardiac chest pain, due to both psychological and physiological factors. And now that we know, some of the social factors add on to worsen the health issues. The various cardiac complications though are of serious concern, where in immediate treatment and therapy is required, the psychogenic factors as previously mentioned are equally responsible for cardiac ailment.

Psychosocial factors should not be equated with structural characteristics of societies or psychological characteristics of individuals. Hence, it is important to recognize the independence of both of these concepts from the 'psychosocial context' and the 'psychosocial environment'.

The term 'psychosocial' is also quite widely used in the literature in connection with health outcome. The roots of 'psychosocial health' lie in the World Health Organization's (WHO) definition of health as 'a state of complete physical mental and social well-being, and not merely the absence of disease and infirmity'. This WHO definition of health has been criticized on several grounds, but for us its main danger is one of confusing cause and effect. From an explanatory point of view the concept of 'psychosocial health', in some cases, may combine traditional medical definitions of disease and infirmity with measures that reflect individual responses to disease and even in some cases indicators of the social context itself. Such measures have merit in recognizing individuals' experiences and quality of life, a dimension that is becoming increasingly recognized for example, in clinical trials. But researchers using health outcomes based on such definitions will help to guard carefully against circular arguments. So major concern for both cardiologists and psychologists is to diagnose the problem and handle both prevention and later management of the pain related symptoms. Correct investigation will help in distinguishing between CCP AND NCCP, and thus help in treatment and therapeutic intervention. Thus this review will help in determining the psychogenic factors and its relation to CVD.

Recognizing CVD due to psychosocial factors is not so easy. Various studies in this area show us and give a complete picture on how to differentiate and also treat the condition accordingly.

Review:

Most of the research articles give us a clear idea about the condition that the patient is in, but what matters here is the right diagnosis and also the treatment plan. According Krantz D S & Mc Ceney M K, An extensive research literature in the behavioral sciences and medicine suggests that psychological and social factors may play a direct role in organic coronary artery disease (CAD) the impact of psychological and psychosocial factors on the development and outcome of coronary heart disease, with particular emphasis on studies employing verifiable outcomes of CAD morbidity or mortality. Five key variables identified as possible psychosocial risk factors for CAD are addressed: acute and chronic stress, hostility, depression, social support, and socioeconomic status. Evidence regarding the efficacy of psychosocial interventions is also presented. It is suggested that, taken as a whole, evidence for a psychological and social impact on CAD morbidity and mortality is convincing. However, continued progress in this area requires multidisciplinary research integrating expertise in cardiology and the behavioral sciences, and more effective efforts to communicate research findings to a biomedical audience.

Recognizing the disease as such and its condition should be given at most importance as we see very commonly people ignoring the minor conditions like general anxiety and stress, this later could turn out to be the causal factors for heart disease ., people assuming that it may not harm is something that we should address to in the very beginning . Physicians and cardiologists should join hands with psychiatric care givers and psychologists who can handle the situation better with psychological intervention techniques.

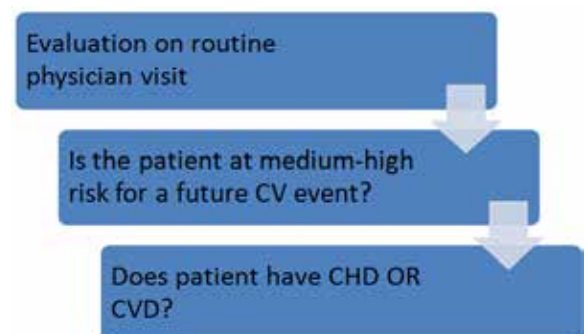
Available studies also showed a similar trend with respect to social support, perception of health and lack of optimism. Less consistent were the results related to anger and perceived stress levels. Socioeconomic disadvantage seems to be an important element influencing the psychosocial factors related to CVD, thus, a more comprehensive clarification of associations between these factors might be useful. More studies are needed, focused not only on well-known risk factors such as depression and hostility, but also on some lesser known psychosocial factors such as Type D and vital exhaustion and their role in CVD. The research work taken up by some of the scholars also gives details about some

review attempts to provide comprehensive consideration of three phases of psychosocial intervention in coronary artery disease (CAD): preventive, acute, and convalescent/rehabilitative. Toward this end, a wide variety of literature, ranging from clinical-anecdotal reports and prescriptive exhortations to controlled systematic studies, is considered. Despite conceptual and methodological problems. The acute phase literature consists almost entirely of clinical lore. Systematic research is recommended on several aspects of denial and on the efficacy of the many anecdotally recommended interventions. The rehabilitative phase literature also includes a rich clinical lore, and, in addition, several systematic studies indicating psychological and perhaps physiological benefits from both individual and group supportive psychotherapy. It is concluded that the current state of knowledge in this area is promising but controversial, and that advance beyond this point requires a shift from global, clinically derived impressions to specific, tested hypotheses.

So, in various reviews and literatures we come across in depth focus in not only addressing the issues related to organic cause but also psychosocial factors that are so damaging to an individual. It's important to look out for best techniques to find out the actual cause and also to handle them so that any further damage can be stopped or managed through psychological intervention. As we all know now that the age old biomedical model is changed to BIOPSYCHOSOCIAL model , thus the importance of psychosocial factors are equal to biological factors that influence health and wellbeing biological factors that influence health and wellbeing.

RISK ASSESSMENT AND PREVENTION

Research survey and practical exposure in the hospital settings did give a lot of knowledge related to cardiovascular disease prevention and risk assessment:



Now in case the patient is 20yrs or above, they should receive a risk factor assessment for cardiovascular disease at routine visit.

History-

- Determine if patient has evidence of existing atherosclerosis
- Family history of CHD with particular attention to Myocardial Infarction or stroke in 1st degree relatives
- Use of antihypertensives , antihyperlipidemic agents, antithrombotics or antidiabetic medications
- Smoking history
- Alcohol consumption
- Assess intensity and frequency of physical activity
- Nutritional habits
- Psychosocial factors

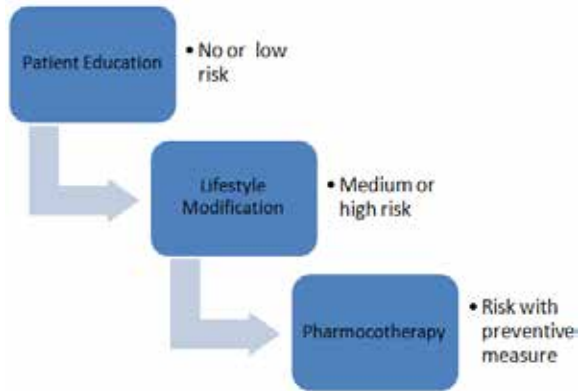
And other various physical examinations like height, weight, BMI, blood pressure, pulse pressure , pulse rate and evaluate for any clinical signs of atherosclerosis.

Lab investigation also becomes a very important factor for the patients who certain complaints which require a thorough

investigation of lipid profiles, blood sugars etc.

Its very convenient and organized enough to undergo these under a hospital set up. What is more important is the investigation or recognizing a psycho-social factor which could be the reason for cardiac related issues or disease.

The major management procedures that usually we come across is along with psycho therapeutic intervention for the following procedures and treatment plan



Though these were followed from decades.., now there is a newer trend. Its not just hospitalization and medications that help the patient to recover, but a supportive environment, complete education about the condition of health, explaining them the reasons for illness, giving them an idea about the condition and treatment and also the future management of both physical and psychological health with social factors will facilitate for comfortable and assured recovery and well-being.

Addressing the cardiac health issue :

A new way to handle the cardiac disease is to work as a team in helping out the patient to handle the situation. Now it's more to do with innovative techniques and procedures that the patient is handled under consultants. A thorough preparation is done by the team to handle the patient according to the requirement. The cardiologists and physicians prepare a treatment plan with procedures, medications and patient education on health condition. Now the psychologist has a greater role to play with the psychological intervention either through psychotherapy or supportive psychotherapy along with Cognitive behavioral modification, routine change to facilitate relaxation and exercise. Positive outlook towards life for better and healthy living all come under the responsibility of the psychologist. Anxiety, stress and depression are commonly seen pre and post health issues, along with personality and behavioral problems. Economic status, family and work place relationships are also considered for better coping ways.

Research has enough evidence to show that stress , anxiety and other psychological factors are very interfering and damaging to the patient. A planned therapeutic intervention will be considered for each every individual keeping in mind the psychosocial factors and their coping strategies.

Challenges:

We come across a lot of challenges with recognizing and addressing the psychosocial factors which are going to affect the individual. Though the condition of the patient is handled by the physicians and cardiologists with various medical procedures and treatment plan. The role of a psychologist is very essential in determining the psychological and social issues that which if not looked into properly, the entire treatment plan and management of the patient's condition could be a great challenge to medical field.

The importance of a good social environment, life style modification, the family relationship, financial stability, social support and complete psychological wellbeing is a must for the patient to recover and cope up with the health condition. It could be easy to get the patient examined, investigated, laboratory diagnosis and other procedures. But what happens when we have to consider psychological testing?

The greater challenge for diagnosis is the testing procedure when the patient is already having heart ailments. The co-operation from patient and the physician's support is a must to administer psychological questionnaires for anxiety, depression, stress, personality, behavior patterns etc. Once you have the results, it's important to discuss with the medical professionals treating the patient, to plan and intervene accordingly.

Because psychosocial risk factors are highly prevalent and are associated with unhealthy lifestyles, we describe the potential role of cardiologists in managing such factors. Management approaches include routinely screening for psychosocial risk factors, referring patients with severe psychological distress to behavioral specialists, and directly treating patients with milder forms of psychological distress with brief targeted interventions. A number of behavioral interventions have been evaluated for their ability to reduce adverse cardiac events among patients presenting with psychosocial risk factors. Although the efficacy of stand-alone psychosocial interventions remains unclear, both exercise and multifactorial cardiac rehabilitation with psychosocial interventions have demonstrated a reduction in cardiac events. Furthermore, recent research studies suggest that psychopharmacologic interventions may also be effective. Despite these promising findings, clinical practice guidelines for managing psychosocial risk factors in cardiac practice are still lacking. So we need to work towards a greater goal to help and manage the patients to handle their condition and also in management of both their physical and mental health wellbeing.

Conclusion:

Psycho-Cardiology is one of the fields which is playing a very important role in investigation, management, treatment and therapy for both cardiac and non-cardiac disease and issues related to pain with cardiac and non-cardiac ailments. Psychosocial issues are important variables that need to be addressed in patients with cardiac ailment or issues related to heart disease. This review was taken up to see how the risk management and complete planning of treatment can help in recognizing and addressing the issues related to cardiac health care. It also stresses on not just the management and importance of organic causal factors , but also the importance of psychological and social factors which are the causal factors some times for poor health conditions leading to heart disease and further more get complicated without proper guidance and care. Thus , when a patient is considered as suffering from heart disease, its not just due to organic disturbances or disease but also due to psychosocial factors. So proper investigation and therapeutic intervention is a must for all .

This can be possible only when a team consisting of medical professionals along with psychologists and care givers can recognize the issues and address the problems accordingly. The professional's with knowledge and experience can diagnose and treat the problem. Innovative machines can rule out the disease or disorder but what it requires is a support system for prevention, treatment and management of health issues.

Thus this review helps in finding out the advantages of risk management and further improvising the care system in the field of psycho-cardiology.

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