Intimate Relationships and Heart Disease

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Abstract: This article reviews the connection between intimate relationships, which provide support, safety and belonging, and illness in general, and particularly, coronary heart disease which is on the rise. Personal and environmental contributors to CHD are reviewed, and the strong connection between intimacy, or lack of, and health are highlighted.

Keywords: Intimacy, Heart disease, Coronary heart disease, Relationship, Support, Belonging.

INTIMATE RELATIONSHIPS AND HEART DISEASE

Coronary heart disease (CHD) is the leading cause of death globally, annually taking the lives of more people in the United States than any other cause [1]. Smoking, hypertension, elevated blood lipids and glucose, dietary fat and caloric intake, and inactivity are some of the biologic and behavioral risk factors. However, in addition to those risk factors research indicates that psychosocial factors, and more specifically the qualities of one's personal relationships, the social environment in which one operates, and one's emotional adjustment and personality can predict the course of CHD [2], and apparently, psychosocial interventions are useful in the clinical management of CHD [3]. Research indicated that being involved in an intimate relationship or being married reduces risk for CHD, but it is not just the relationship, as much as its quality. A good relationship helps avoid CHD, while bad relationships may hasten its appearance [4-6].

THE PSYCHOSOCIAL RISK FACTORS FOR CHD

While MI (Myocardial Infarction) may be a sudden event, it is actually a culmination of decades-long progression of coronary atherosclerosis. The disease progression may begin in childhood or adolescence and proceeds at different ages and progresses at different rates depending on risk factors [7], becoming clinically apparent when it disrupts blood flow to the heart (*i.e.*, myocardial ischemia). Progression is affected by a number of risk factors, such as the kind of intimate relationships the person partakes in, his or her personality and emotional adjustment, as well as the more known behaviors such as smoking, physical activity which influence sympathetic and parasympathetic cardiovascular responses, neuroendocrine reactivity, inflammation, and changes in blood platelet aggregation [2].

The Effects of Social Support and Intimate Relations

Research has repeatedly demonstrated that adverse course of CHD is predicted by social isolation and low levels of social support [8]. Being married, with a positive and nurturing relationship, which serves as a primary source of social connection has been shown to reduce risk of CHD development [4, 5] and contribute to better outcomes in established CHD [9-11]. Marital disharmony, or disruption, increases CHD risk. Divorce predicts all-cause mortality [12], as well as asymptomatic coronary atherosclerosis [13], and adverse medical course (*e.g.*, reduced survival) in CHD patients, as well as increasing the risk of subsequent cardiovascular disease [6, 9, 14]. Research has pointed out that greater conflict, worries, and demands in cohabiting relationships predict incident CHD [15], severity of atherosclerosis [16, 17], and poor clinical outcomes (*e.g.*, recurrent coronary events, reduced survival) in patients with CHD [10, 11].

How do Personality, Social Environment and Emotional Adjustment Affect CHD

Anger, hostility, and antagonism predict marital difficulties [18, 19], divorce [20], and behavior during marital conflict. Trait anger and hostility as well as dominant and controlling interpersonal styles predict CHD development and course [13, 21, 22]. Depressive symptoms and disorders and anxiety symptoms and disorders, as well as self-reported stress predict CHD development and reduced survival [23-25]. Anxiety seems to affect CHD course less significantly [26, 27]. Low socioeconomic status (SES) and job-related stress – both correlating positively with lower marital quality and with higher depression - can predict CHD [28-32]. Optimism, subjective well-being, and conscientious-

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ness are associated with increased support in intimate relationships and reduced risk of CHD [33, 34]. And what seems to be intuitively clear, life satisfaction and other aspects of subjective well-being are associated with better marital quality [35].

Utilizing interpersonal theory [36], to explain the interaction of personality and behavioral factors and their influence on marital quality, it was observed that behavior, appraisals, and motives vary along the dimensions of affiliation (*i.e*., warm and affectionate vs. cold and hostile) and control (*i.e*., dominant and directive vs. submissive and deferential). Both dimensions are included in relationship theory and research [37]. In couple research we meet criticism and blame (*i.e*., hostile control), cooperation (warm deference), or supportive advice and encouragement (*i.e*., warm control). Interpersonal theory postulates that variation in the initial actor's overt behavior along these dimensions tends to influence or even shape the other partner's reactions in specific ways. Warmth evokes warmth in return, and hostility is usually met with hostile partner responses.

Similarly, dominance invites deference, and Deference on its part invites dominance. Couple research confirms the that reciprocity along the affiliation dimension exists [38]. Since individual-level CHD risk factors such as depression, anxiety, and anger are associated with hostile interpersonal behavior while such protective factors as optimism are associated with a warm style [39, 40], their associations with poor versus good intimate relationship quality are consistent with the theory. Experimental manipulations of marital conflict were found to evoke physiological responses which influence CHD [41], and measured marital quality predicts their magnitude [16]. This research focused on sympathetically mediated cardiovascular and neuroendocrine responses, although it was found that negative marital interactions can also reduce salubrious parasympathetic responses [13]. Interestingly, psychosocial factors such as posttraumatic stress disorder predicts not only the individual's own physiological stress responses, but their partner's, as well [42, 43], hence indicating that one partner's personality or emotional distress is a major component of the other's social context. Moreover, couple processes also influence health related behavior and adherence to medical instructions [44, 45]. That is of note since exercise-based cardiac rehabilitation, adherence to prescribed medication, and changes in health behavior predict the course of CHD [46-48]. Couple disharmony may significantly contribute to poor sleep which predicts the development of CHD [49].

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