Psychosocial Intervention Studies Are Needed in Psychocardiology

A Review of

Contributions Toward Evidence-Based Psychocardiology: A Systematic Review of the Literature by Jochen Jordan, Benjamin Bardé, and Andreas Michael Zeiher (Eds.)
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Reviewed by

Leslie B. Rosen

Contributions Toward Evidence-Based Psychocardiology: A Systematic Review of the Literature, edited by Jordan, Bardé, and Zeiher, takes on the challenge of reviewing for the most part current literature (from 1990 to early 2000s) that relates to psychosocial factors that influence the etiology, progression, and treatment of coronary heart disease (CHD). Three themes permeate all the chapters. First, men differ from women in their response to interventions and in their presentation of symptoms. Some studies went so far as to say that what works well for men may harm women (see, e.g., Frasure-Smith et al., 1997; Jackson, Leclerc, Erskine, & Linden, 2005). Second, intervention studies on psychosocial variables are not as methodologically rigorous as medical studies in that randomized assignment and clearly defined control groups are frequently missing. These studies also fail to precisely describe the intervention (e.g., sketchy descriptions are used without manuals or step-by-step procedures), detail who delivered the intervention or how the intervention was presented (e.g., providers were frequently not trained in psychotherapeutic delivery of services, or services consisted of a 15–20-minute video), and differ substantially as to end points chosen for evaluating change (e.g., decreased distress vs. another CHD event). Finally, anxiety and depression in cardiac patients may not be the same construct as clinical anxiety and depression.

The chapters in this book represent the work of 40 German scientists who developed a protocol for conducting meta-analyses that graded all research found in a particular area and then evaluated only those studies that met their inclusion criteria. Students who want to learn how to do meta-analyses would find this book helpful as the authors explicitly set out what they did to come up with the studies included in each analysis. These descriptions include but are not limited to stating which databases were searched with which key words, the reference lists from which articles were taken, and how each study was rated as to scientific rigor and inclusion and exclusion criteria. The topics reviewed include social inequality and chronic emotional distress in the workplace; 100 years of psychoanalytic research; risk reduction with smoking cessation; physical inactivity; anxiety and depression; Type A behavior and hostility; chest pain, angina pectoris, panic disorder, and syndrome X; psychosocial aspects of coronary catheterization, angiography, and angioplasty; stress management, relaxation, and Ornish groups; and cardiac rehabilitation.

Consolidation of Material Across Chapters

This section is based on an assumption that breaking up this book into 10 chapters likely mirrors the current state of research regarding psychosocial variables and CHD etiology, progression, and treatment. Structural modeling, path analysis, and other complex statistical analyses were not found or used. In my opinion, the next step for researchers in this area appears to be mapping the characteristics of persons with CHD rather than looking at distinct constructs (e.g.,


workplace stress, anxiety and depression, Type A behavior and hostility) that may work for some CHD patients but not for others. This idea was triggered by the constant encouragement of the contributors to this book to interpret results around the effectiveness of psychological interventions with objectivity and open-mindedness.

Participants in the studies reviewed generally had CHD. What does this mean in terms of subject pools and research rigor? Although most of the chapters raised this inquiry, one (Langosch, Budde, and Linden, Chapter 9) summed it up clearer than the rest:

- Large improvements in the quality of usual cardiological care have been made in the past 2 decades, and it is now exceedingly difficult to show a further reduction in the already low mortality rates attributable to usual care.

- Methodological variations in the protocols of the largest and best studies make interpretations difficult because interventions themselves varied, treatment was initiated at different time points in the rehabilitation trajectory, some patients received confounding treatments, comparison groups varied in the degree to which they were exposed to neutral versus active intervention, some studies had no female participants or only very small subsamples of women (too small to analyze separately), therapist qualifications varied, and studies also showed variability in who was treated (i.e., all cardiac patients vs. only those with demonstrated elevations in distress).

(p. 253)

What does this mean in terms of the studies reviewed? Each study started with patients who had had a CHD episode. Some were days or weeks post event; others were studied retrospectively. Each study defined terms like social support or end points differently. Using mortality as an end point does not appear as productive as evaluating decreases in distress or increased functioning in the patients’ world. Some studies included only those patients who were extremely distressed; others included all patients, most of whom would have found equilibrium on their own, with or without treatment.

An example across some of the chapters will clarify this need for casting a broader net of constructs in an intervention study. The sociological constructs of social inequality (frequently measured by socioeconomic status [SES]—education level, income, and/or occupational status) and workplace stress (survey data, occupation guidelines, observation) have raised a controversial issue regarding whether the increased risk of CHD among individuals who come from lower SES groups can be partially explained by increased exposure to adverse psychosocial working conditions (e.g., high effort and low rewards; Rugulies and Siegrist, Chapter 1).

The constructs of Type A behaviors and hostility have had a variable ride through history. At first, Type A behaviors were associated with increased risk of CHD, especially among males from higher socioeconomic groups. Later this shifted to the concept of hostility and became associated with lower SES and higher risk of CHD. Current literature suggests that Type A behaviors may be a resiliency factor in recovering from a CHD event (Myrtek, Chapter 6)! All in all, these constructs when viewed on their own do not produce solid grounding for applied clinical interventions.

The literature supports depression as a causal risk factor in CHD that mediates behavioral consequences (lowered adherence to treatment), psychophysiological effects, and health care use (Herrmann-Ligen and Buss, Chapter 5). There is little research in the treatment of the comorbid anxiety and depression in patients with CHD.

There is a serious need for researchers to develop models through which these various constructs at the societal level (SES), community level (workplace), and individual level (depression and anxiety) combine to either increase or decrease an individual's risk of CHD. What is needed is a multidisciplinary framework to investigate the complex interplay between living conditions, psychological states, and physiological process in the etiology, progression, and treatment of CHD (Rugulies, Aust, & Syme, 2004).

Conclusions

Psychocardiology needs a list of criteria for inclusion in psychosocial intervention studies that examine which types of
patients would benefit from which type of treatments at which phase of rehabilitation. In addition, samples need to include large enough numbers of women so that separate analyses of risks and benefits can be conducted for men and women. There are obvious ethical challenges in conducting randomized controlled studies in this area. For example, customary cardiac care recognizes that each patient is entitled to receive health education materials, yet this could be considered active treatment if the patient is also participating in a study protocol. Likewise, a clinically depressed patient should receive medication if needed, even if this medication is not part of the protocol in which they are participating. Patients will encounter many health care professionals, some of whom are more adept at providing “therapeutic” consultations—this further exacerbates the problem of defining what active treatment is. These are just some of the limitations that abound when patients are receiving medical care and also participating in intervention studies. The studies need to continue, and our interpretations will have to take the factors mentioned above into consideration. This book is a wonderful starting point to conceptualize more studies and to muster the evidence needed to ensure that such studies will be funded.

References

