



An evaluation of a biopsychosocial framework for health-related quality of life and disability in rheumatoid arthritis

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ABSTRACT

Objective: To examine the relationships between physical, psychological, and social factors and health-related quality of life (HRQOL) and disability in rheumatoid arthritis (RA).

Methods: A sample of 106 patients with rheumatoid arthritis (RA) completed measures of self-reported disease activity and psychosocial functioning, including coping, personal mastery, social network, perceived stress, illness beliefs, the SF-36 and Health Assessment Questionnaire Disability Index (HAQ-DI). In addition, physician-based assessment of disease activity using the Disease Activity Scale (DAS-28) was obtained. Hierarchical multiple regression analyses were used to evaluate the relationships between psychosocial factors and scores on the SF-36 and HAQ-DI.

Results: Lower self-reported disease activity was associated with higher SF-36 physical functioning scores, while the contribution of active coping, passive coping, and helplessness was significant only as a block. Lower self-reported disease activity, higher personal mastery, and lower perceived stress contributed to higher SF-36 mental health functioning, and higher self-reported disease activity and lower helplessness were associated with greater disability, as indexed by the HAQ-DI. The DAS-28, an objective measure of disease activity, was unrelated to any of these outcomes.

Conclusions: The findings highlight the importance of targeting psychological factors to enhance HRQOL and disability in the clinical management of RA patients.

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Introduction

Rheumatoid arthritis (RA) is a chronic, inflammatory disease that can lead to disability and significantly interfere with functional adaptation [1,2]. Symptoms such as joint pain, swelling, and fatigue are disease-specific stressors that tax the adaptive resources of patients and heighten the risk for patient reported declines in function (i.e., difficulties in carrying out activities of daily living) as well as reports of emotional disturbance [3] which together create enormous psychological and financial loss for those afflicted [4].

Given the salience of such subjective reports of declines in patients' physical, social, and psychological functioning, there is growing interest in using patient-reported outcomes (PROs) to assess treatment effectiveness [5]. PROs represent a patient's evaluation of his/her unique health status distinct from the evaluations of physicians and laboratory findings, and have a long history of use in

the measurement of outcomes such as psychological distress, pain, and depression in patients with RA. Increasingly, PROs are being adopted as a mechanism for evaluating clinical efficacy in randomized clinical trials [6,7] to allow for an analysis of whether treatments that are designed to reduce disease activity, for example, will also improve clinical functioning from the patient's perspective.

An important measure of PROs is health-related quality of life (HRQOL). While various definitions have been proposed, HRQOL generally refers to the ways in which a given health condition affects a patient's physical ability and capacity to function in a variety of social and emotional roles. HRQOL, which may be generic or disease-specific, is generally divided into measures of physical functioning and emotional well-being [8]. In contrast to disability measures, which assess how health limits a patient's ability to perform specific tasks, HRQOL is a more global construct that indicates how well a patient is doing given the totality of his/her medical condition. Hence, the determinants of disability and HRQOL are likely to differ, as they are distinct constructs tapping different facets of functioning.

A key issue in HRQOL research in RA concerns the identification of variables, along with disease activity, that play prominent roles in

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