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Perceived importance of activities of daily living and arthritis helplessness in rheumatoid arthritis
A prospective investigation

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Abstract

Objective: To examine the contribution of perceived importance of activities of daily living (ADL) to arthritis-specific helplessness in a sample of rheumatoid arthritis (RA) patients over a 1-year period. **Method:** Forty-two individuals from an outpatient rheumatology clinic completed measures of ADL importance, helplessness, depression, pain, and disability; the physician's assistant provided objective ratings of disability. **Results:** Time 1 importance of ADL predicted a significant amount of variance in Time 2 arthritis helplessness after statistically controlling disease and psychological covariates. Moreover, increased perceived ADL importance predicted decreased arthritis helplessness over the 1-year period. **Conclusions:** Results indicate that RA patients' experience of arthritis-specific helplessness may be minimized over time when performing ADL is perceived as important. Furthermore, these findings provide preliminary evidence for one possible antecedent to increased perceptions of arthritis helplessness in individuals with RA.

Keywords: Rheumatoid arthritis; Activities of daily living; Arthritis helplessness

Introduction

Rheumatoid arthritis (RA) is a chronic disease that affects approximately 1–2% of the general world population and involves painful and disabling joint and connective tissue inflammation [1]. Because of the variability in disease course and the persistent functional disability that accompany RA, individuals may develop a sense of helplessness and loss of control over their illness [2]. Furthermore, the unpredictable and disabling nature of RA may lead patients to gradually decrease activities of daily living (ADL) despite physician recommendations to maintain reasonable levels of physical activity.

Individuals with RA often experience significant deficits across a number of life domains, including work, household activities, and service activities [3–5], and report interference in the performance of hobbies and pastimes [6,7]. Furthermore, these individuals report greater difficulty performing advanced ADL such as running errands and climbing stairs [8], and report less activity engagement over time [3].

Performance of ADL has been shown to be a salient indicator of patient outcome and disease process [9]. However, research that has focused primarily on actual performance of ADL has largely neglected the cognitive appraisal mechanisms that may influence such performance [3,5,7,10]. Research examining cognitive measures of ADL has largely focused on patients' satisfaction with their ability to perform ADL and the perceived value of those ADL [11–13]. For example, high levels of disability have been associated with decreased psychological well-being only in patients who rated engagement in activities as important [13]. Furthermore, Blalock and colleagues [12] demonstrated that only when individuals rate certain activities as highly important does satisfaction with one's ability to perform ADL negatively impact psychological well-being. This suggests that satisfaction in performing ADL may mediate the relationship

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between physical impairment and psychological well-being. Thus, perceived importance of ADL appears to play a significant role in the development of general psychological comorbidity in individuals with RA, yet no known study has examined how this variable may contribute to the development of specific psychological factors.

One theoretical model applicable to psychological adjustment issues in RA that has received considerable attention in the literature is learned helplessness [14,15]. Briefly, this model suggests that performance deficits are produced by chronic exposure to behavior–outcome noncontingency that in the context of a chronic illness may lead to decreased behavioral activation of health-promoting activities [16–19]. In general, arthritis-specific helplessness [17] has demonstrated reliable relationships with a number of outcome variables such as increased depression and anxiety, lower self-esteem, and impairment in performing ADL in both cross-sectional and prospective RA studies [20,21], and has been shown to mediate the relationship between disease severity and depression [2]. Moreover, the relationships between arthritis helplessness and depression, pain, and functional status appear to be stable over a considerable length of time [21,22].

Overall, the extant research has demonstrated the salient, long-term role of arthritis helplessness in RA disease outcome. Additionally, although self-report indices of ADL performance have produced variance in arthritis helplessness [23], the role of the perceived value of such activities has been largely neglected. Thus, the majority of the research is limited by the use of samples in which motivation to perform ADL was not assessed. This represents a significant limitation given the plausibility that perceived importance may increase the likelihood of engaging in adaptive behavior. Indeed, perceived ADL importance may act as a catalyst for increased engagement in ADL and thus enhance specific psychological outcomes in individuals with RA over time. Research that has examined ADL importance is also limited by the utilization of cross-sectional designs. Thus, because perceived importance of ADL is a significant factor in the development of psychological comorbidity and arthritis helplessness has been shown to impact psychological and disease variables, the present study was designed to examine the extent to which the importance placed on performing ADL influences the degree of helplessness experienced in a sample of individuals with RA over a 1-year period. It was hypothesized that greater perceived importance of ADL at Time 1 would predict lower arthritis helplessness at Time 2.

Method

Participants

Participants were fifty-eight individuals recruited from an outpatient rheumatology clinic. Each participant was diagnosed with RA according to the American College of Rheumatology. Of the original 58 participants, 42 (34 female, 8 male) completed measures at both Time 1 (T1) and Time 2 (T2). Noncompleters [$N = 16$ (13 female; 3 male)] did not differ significantly from participants completing both study phases across demographic [i.e., socioeconomic status (SES) and age; $F(2,55) = 1.03$, $P = .36$] and disease variables [i.e., duration, pain, self-reported (SR) disability, and physician's assistant rated (PR) disability; $F(4,53) = 0.27$, $P = .90$] or depression severity, importance of ADL, and arthritis helplessness, $F(3,54) = 0.25$, $P = .86$. The original sample size of 58 is consistent with other cross-sectional and longitudinal studies utilizing RA samples [16,22,24] and has demonstrated adequate statistical powering for observation of significant effects in the primary outcome variable of interest in this study.

Participants ranged in age from 25 to 75 years ($M = 53$; S.D. = 12); illness duration ranged 1 to 25 years ($M = 9$; S.D. = 5.6). In addition, the majority of the sample (69%; $n = 29$) was rheumatoid factor positive. Approximately 14% of the participants were taking nonsteroidal antiinflammatory drugs (NSAID) and slow-acting antirheumatic drugs (SAARD); 86% were taking a combination of SAARD or steroid + SAARD combination. Seventy-four percent of the participants were classified as middle- to upper-middle-class SES [25]; the primary ethnic background was Caucasian (93%). Table 1 provides a summary of psychosocial and health assessment variables for the sample. Scores on these measures were consistent with prior research [16,22,24] and representative of individuals with RA in the general population.

Table 1
Descriptive statistics for psychology and health assessment measures

Measure	*M*	S.D.
IDD		
Depression (T1)	11.26	8.70
Depression (T2)	10.45	7.03
ADL importance		
Importance (T1)	3.98	.15
Importance (T2)	3.93	.38
AHI		
Helplessness (T1)	12.48	1.78
Helplessness (T2)	11.67	2.72
MHAQ—self-report		
T1 pain	.74	.55
T1 disability	.57	.44
T2 pain	1.50	.60
T2 disability	.49	.49
MHAQ—physician report		
T1 Disability	.87	.53
T2 Disability	.49	.46

IDD = Inventory to Diagnose Depression; ADL importance = importance of activities of daily living; AHI = Arthritis Helplessness Index; MHAQ = Modified Health Assessment Questionnaire; T1 = Time 1; T2 = Time 2.