



## Commentary

## Heterogeneity in the response to rheumatoid arthritis (RA): The challenge of accounting for individual variability in the face of chronic disease

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### Commentary on “Distinct psychological distress trajectories in RA: findings from an inception cohort,” by Norton et al.

Significant research over the past 25 years has documented the impact of rheumatoid arthritis RA on patients' disability, quality of life, and psychological functioning [1,2]. For example, several studies have shown that depression is very common in RA, with prevalence rates reaching between 20% and 30% in some samples [3]. These findings have underscored the importance of identifying and managing psychological dysfunction in RA patients and developing a comprehensive approach to care that incorporates psychological and behavioral treatments [4]. Importantly, this research has advanced an interdisciplinary perspective on clinical care that has contributed toward enhancing the partnership between the fields of rheumatology, behavioral medicine, and health psychology.

Despite the deleterious impact of RA that has been described in other works, the paper by Morton et al. provides an interesting and optimistic perspective on the psychological adaptation to RA. Based on following an inception cohort of patients over 10 years, the authors, using latent growth mixture modeling (GMM), found four trajectories of psychological distress that characterized their sample of 784 patients: low-stable (68%), high-stable (12%), high-decreasing (9%), and low-increasing (11%). With the Hospital Anxiety and Depression Scale (HADS) [5] as the psychological criterion, the results demonstrated that the majority of patients had low rates of psychological distress that remained stable over 10 years, while a smaller group, while starting high, ended up with less distress over time. Who would have thought that, over such a lengthy period, so many patients would show a robust psychological adaptation to this difficult medical condition that is characterized by pain, stiffness, and impairment in mobility?

The use of GMM, the inclusion of a sample with recent RA diagnoses, and the adoption of such a long follow-up are distinct advantages of this research over other studies that have relied on cross-sectional findings, have typically studied patients much later in the course of their illness, or have not used statistical approaches with the capacity to identify subgroups of patients varying in psychological outcomes. For these reasons, the data presented in the Morton et al. paper are very compelling and have the potential to create new insights regarding the RA disease course that affect

clinical management. However, the paper also raises some important questions about the nature and meaning of their results that require further clarification.

### Psychological trajectories vs. impact of disease

The paper clearly illustrates the importance of embracing individual variability in psychological adaptation over time in newly diagnosed RA patients. Patients with RA are a mixed, heterogeneous group. However, while the results showed that pain, stiffness, and disability were associated with higher HADS scores at baseline and 3 years, a finding which converges with other research [6], the study did not address the factors that may have accounted for such variability in psychological adaptation over time. A related issue is whether the findings reflected different modes of adjustment to RA, the impact of other life events, differential response to treatment, or differences in the psychosocial histories of patients.

Pre-morbid psychological status, for example, may have affected the trajectories. While the majority of the sample consisted of patients who were well-adjusted, the trajectories of those who reported significant depressive and anxiety symptoms (32%) at some point after diagnosis may have been influenced by their history of depression or anxiety. Thus, their mode of adaptation may not have been a reflection of the impact of RA, but rather a consequence of the natural history of their psychological adjustment. The same can be said, of course, about those who remained stable over the 10-year period. Were these stable individuals prior to their RA who continued to be stable after diagnosis, or did they become stable in the face of their medical condition?

Without knowledge of previous psychological adjustment, it is difficult to determine whether the trajectories are the result of coping with RA or some other set of factors. A similar argument can be made for the potential influence of possible major life events (i.e., job loss, bereavement, divorce, medical co-morbidities) that could have intervened over the 10-year period, and whether they affected the trajectories directly, or interacted with RA symptoms to produce different outcomes. In sum, without data related to history or intervening events, it is impossible to interpret the distinct trajectories of the four subgroups, their underlying causal mechanisms, or the extent to which RA played a role in the process of their adjustment. It is acknowledged, however, that doing so was not the purpose of this paper, and further research is needed to extend and clarify these provocative results.

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## The course of adjustment to RA

Coping with RA is a dynamic process that involves knowing how to manage the ebb and flow of pain, stiffness, and disability that affect all patients to some degree. Because of these chronic disease-related burdens, the likelihood of psychiatric symptoms would be expected to increase relative to groups not affected by these obstacles. Accordingly, a recent longitudinal study by van 't Land et al. [7] found that having arthritis increased risk for developing a psychiatric disorder, while having a psychiatric disorder did not predict risk for developing arthritis. Studies, however, have not traditionally focused on the arthritis patients who move on to live productive, fulfilled lives, and who do not become afflicted with a psychiatric condition. The research by Morton et al. has demonstrated quite emphatically that psychological stability is not only possible, but common, in patients with RA. A salient question, of course, is what enables patients to maintain stability over time.

Having RA is a major stressor that has the potential to interfere with mood and quality of life, but our knowledge of the effects of stress has increasingly shown that the management of stress is crucial to achieving beneficial health outcomes [8]. Adaptive functioning in the face of stress is largely dependent on the personal, social, and environmental resources available to patients that engender robustness and protect them from the adverse consequences of the disease burdens that they confront. Many individuals remain resilient and protected even when stress is extreme, such as in the case of trauma [9]. Thus, behavioral scientists should not be surprised when data such as those by Morton et al. are presented. Indeed, positive results on the adaptation to RA can serve as a source of inspiration and hope to patients and those who treat rheumatic disease.

For those patients who are not as fortunate to maintain or achieve stability, the challenge is to understand their vulnerability and assist

them in acquiring the resources that would help them function productively and achieve desirable health outcomes. Strengthening patients' potential to adjust to a chronic illness is just as important as reducing their symptoms and eradicating underlying disease. Understanding the variability in individual functioning in RA is central to delivering effective, comprehensive clinical care. More than anything, the Morton et al. findings emphasize the validity and importance of this principle and the value of promoting research that clarifies the adjustment process over time in patients afflicted with arthritic disease.

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