

# Positive psychological qualities and adjustment to arthritis.

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## Abstract

### Introduction

Bisopsychosocial approaches to arthritis emphasize the importance of psychological and individual difference factors as predisposing, precipitating or perpetuating factor in arthritis through their interface with pain-related, inflammatory, and immunological responses. Rather than just focusing on understanding how loss is experienced, positive psychological approaches emphasize the importance of promoting and understanding how adjustment is experienced. In this narrative review, four positive psychological qualities are introduced and current empirical and theoretical research on their potential role for facilitating adjustment to arthritis is reviewed. These qualities include two which have received more research attention – optimism and benefit finding – and two that have received less attention but are nonetheless promising – gratitude and self-compassion.

### Conclusion

Available research supports the proposition that optimism and benefit finding can serve as resilience factors for arthritis patients as each is associated with better psychological and physical well-being. The extent of their role for promoting adjustment may be limited by disease severity and duration. Theory and limited research on gratitude and self-compassion is suggestive of a possible role for these qualities in adjustment to arthritis and therefore they warrant further research attention.

### Introduction

Ranking among the top ten causes of disability worldwide<sup>1</sup>, arthritis is a chronic disease that can challenge daily functioning and psychological well-being. Pain, fatigue and functional limitations are common features of most forms of arthritis which can compromise quality of life and contribute to the high rates of anxiety and depression associated with this group of chronic diseases<sup>2,3</sup>.

Indeed, much of the research on the psychological implications of arthritis have focused on identifying and addressing the factors that contribute to poor adjustment rather than those that are protective and may even promote positive adjustment. However, researchers have recently noted that improving the quality of life for individuals living with arthritis may depend just as much on understanding positive psychological growth as it does on understanding how loss is experienced<sup>4</sup>.

Moving from a perspective of risk to one of resilience, the current paper will critically review the existing research on positive adjustment to arthritis. Following a brief overview of the research documenting the implications of stress for adjustment to arthritis, this paper will outline the positive qualities and individual differences that research indicates may be beneficial to the adjustment process and the boundary conditions which may limit their effectiveness.

The reasons why certain individual qualities may play a role in not just psychological but also physical well-being may be best understood through the lens of the biopsychosocial model. According to this model, an individual's state of health results from the interplay of an array of biological psychological, and social factors including psychological

states and traits, and social relationships<sup>5</sup>. From this view health is a state that has multiple determinants, and attending to biological, psychological, and social needs is key for maximizing health, especially in the context of chronic disease. Accordingly, psychological qualities and individual differences can play a critical role in positive adjustment to the ongoing stress associated with living with arthritis.

### Discussion

The authors have referenced some of their own studies in this review. These referenced studies have been conducted in accordance with the Declaration of Helsinki (1964) and the protocols of these studies have been approved by the relevant ethics committees related to the institution in which they were performed. All human subjects, in these referenced studies, gave informed consent to participate in these studies.

### Stress in Adjustment to Arthritis

Similar to most chronic diseases, the daily limitations and symptoms associated with arthritis can be viewed as ongoing stressful events that are akin to living with a chronic stressor. Although these challenges may wax and wane from day to day, for the individual living with arthritis the anticipation of the flares, pain, and other symptoms are stressful simply because they are unpredictable and uncontrollable<sup>6</sup>. In addition, research has demonstrated that general perceived stress may be a better predictor of psychological adjustment to arthritis than disease severity<sup>7</sup>. Taken together with research suggesting an exacerbating role for chronic stress in inflammatory processes<sup>8</sup>, and in the development of depression in patients with arthritis<sup>2</sup>, it is clear that stress is an important indicator of disease adjustment and perhaps even disease progression. For example, in one prospective study of rheumatoid arthritis patients both the

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experience of daily stressors and stress vulnerability factors, including a tendency to excessively worry, were predictive of fatigue, self-reported disease activity, swollen joint count and pain one month later<sup>9</sup>. Although a full discussion of the mechanisms explaining the link between stress and disease activity and symptom fluctuations in arthritis is beyond the scope of this review, none of the outcomes in the study were explained by immune and hypothalamus–pituitary–adrenal (HPA) axis activity markers. As other researchers have suggested it may be that stress influences pain and other symptoms via non-immunological mechanisms<sup>10</sup>, leading to a vicious circle of stress, pain and inflammation<sup>11</sup>.

Understanding the psychological factors that may help buffer stress in general as well as disease-related stress is therefore an important objective for improving quality of life among arthritis patients.

### Positive Psychological Adjustment to Arthritis

The assertion that certain psychological characteristics may promote positive adjustment to arthritis is in line with the view of personality as a predisposing, precipitating or perpetuating factor in arthritis. Inasmuch that negative qualities can exacerbate pain, symptoms and stress can therefore contribute to further functional limitations and even disease progression<sup>12</sup>, positive qualities may mitigate stress and counteract negative symptoms. This view of positive psychological characteristics and personality factors as moderating stress and promoting well-being emerges from the perspective that studying human strengths and flourishing is an important goal for supporting quality of life and adjustment in chronic illness populations<sup>13</sup>.

One way to view these positive qualities is as coping resources that help build resilience and reduce general and illness-related stress.

Appraisal based models of coping and stress posit that how a stressor is viewed, and not just its presence alone, plays a central role in both the initiation and continuance of the stress response<sup>14</sup>. Accordingly, stress is experienced if an individual views a demand from the environment (including the internal somatic environment) as both negative (posing a harm, threat, or challenge to well-being) and as exceeding available coping resources. In this model internal coping resources, such as character strengths, can play a critical role in down-regulating the stress response by shifting the appraisal of the event as something threatening or harmful to something that may be challenging but manageable. In addition to this primary appraisal, opportunities to view or locate other coping resources to deal with a stressor can occur through a secondary appraisal process<sup>14</sup>. Here again personal characteristics can play a role in the way resources are viewed as well as the effectiveness of efforts to garner external resources such as social support from the environment to help manage the stressor<sup>15</sup>.

In the context of arthritis, qualities that help the individual view the pain, functional limitations, and other disease-related stressors as something manageable can serve as resilience factors that promote positive adjustment<sup>15,16</sup>. Several of these factors have been identified in the literature as being potentially beneficial for people living with chronic illness in general and arthritis in particular. These include optimism and benefit finding, and there is also some emerging evidence that gratitude and self-compassion are also be important personal qualities to consider. Available research on the potential of each these factors for promoting positive adjustment to arthritis will be reviewed in the following sections.

### Optimism

Generally defined as a tendency to expect positive outcomes in the

future<sup>17</sup>, optimism is psychological characteristic that has received a great deal of research attention as a protective factor for health<sup>17</sup>. Rather than just “positive thinking”, optimism reflects a positive view of the future that can motivate necessary actions to make these expectancies a reality. With respect to arthritis, optimism as a coping resource has been most frequently investigated among rheumatoid arthritis (RA) patients and yielded promising results. Optimism has been linked to better physical functioning and fewer physical symptoms in a cross-sectional study of RA patients<sup>18</sup>. In one prospective study of RA patients, optimism was associated with better psychosocial adjustment at Time 1, and linked to increases in psychosocial adjustment over time as well as more adaptive coping 16 months later<sup>19</sup>. Similarly, optimism was a coping resource that predicted psychological well-being at the one year follow-up in a longitudinal study of RA patients<sup>20</sup>. Other researchers have included optimism as one of several resilience factors for arthritis that can increase the likelihood of experiencing positive social interactions and positive affect which in turn can improve psychological well-being<sup>15</sup>. Indeed, a daily diary study of women with RA or osteoarthritis found support for this model<sup>15</sup>. There is, however, evidence that disease duration may be a boundary condition to consider when assessing the benefits of optimism for arthritis patients. For example, among

RA patients with different disease durations, optimism was associated with lower pain ratings but only for those with early and intermediate RA, and not for those with established RA (> seven years)<sup>21</sup>.

### Benefit Finding

Benefit finding, the capacity to construe benefits from stressful events or circumstances, is one way that people derive meaning from challenging events that can facilitate adjustment<sup>22</sup>. Importantly for understanding adjustment to arthritis, benefit finding can be induced via specific cognitive-

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behavioural interventions<sup>23</sup>, or may develop naturally as a response to stressful events. Although the role of benefit finding for facilitating adjustment has been more extensively investigated among other chronic illnesses than it has been in arthritis, the existing research on how construing benefits from adversity may play a role in adjustment to arthritis is promising.

Given the physical limitations associated with many forms of arthritis and the subsequent loss of independence, it is not surprising that evidence indicates that benefit finding in arthritis patients is associated with positive interpersonal outcomes as well as other markers of psychological and physical adjustment. Interpersonal benefits were the most commonly reported benefit among RA patients in one longitudinal study, with appreciation of social support received from loved ones as the most frequently reported benefit<sup>24</sup>. In addition, interpersonal benefit finding was associated with less distress and pain initially, and with less physical disability at the 12-month follow-up. Similar results were found in a study of a large sample of RA patients in Japan. Benefits such as developing compassion towards others and seeing the benefit of other overlooked aspects of their lives were the most common benefits reported, and overall benefit finding was a key predictor of psychological well-being<sup>25</sup>.

Certain factors may however, contour how benefit finding contributes to adjustment. In the study of Japanese RA patients, the capacity to perceive benefits from arthritis was higher among those having a large social network and able to engage in self-care behaviours<sup>25</sup>. Given the correlational design of this study it may be that engaging in self-care behaviours reflected less disease severity, with those better able to care for themselves perceiving benefits more often. Similarly, a daily diary study of RA patients found that daily pain intensity moderated the positive

association between benefit finding and adjustment<sup>26</sup>, suggesting that fluctuations in daily pain may limit the extent to which benefit finding can enhance adjustment.

### Gratitude

Whether viewed as either a momentary state or an enduring trait-like life orientation toward noticing and appreciating the positive things in life, gratitude is posited to contribute to well-being and reduce stress by serving as a coping resource and/or enhancing general positive affect<sup>27</sup>. Research in multiple contexts has demonstrated the benefits of gratitude for well-being and psychological adjustment<sup>27</sup>; however, applications of gratitude theory for understanding adjustment to chronic illness and specifically arthritis are just emerging. In one of the few studies examining gratitude in the context of arthritis, gratitude was associated with markers of both psychological and physical well-being both initially and at the 6 month follow-up in a mixed sample of arthritis patients<sup>28</sup>. Importantly, gratitude longitudinally and incrementally predicted psychological well-being after controlling for age, illness duration, baseline well-being and benefit finding, suggesting that its effects are distinct from those of benefit finding. Although these results are promising, more research focusing on specific types of arthritis is needed to better understand the potential benefits of gratitude for adjustment to arthritis.

### Self-compassion

Another quality which may be beneficial for promoting positive adjustment to arthritis is self-compassion. Defined as an enduring tendency to take a kind, compassionate and accepting stance towards oneself in times of difficulty<sup>29</sup>, self-compassion is associated with lower stress and better well-being in both healthy and chronically ill samples<sup>30</sup>. In particular, self-compassion may promote healthy adaptation to stressful circumstances because it promotes healthy self-

regulation of behaviours and affect<sup>30</sup>, and the use of adaptive coping strategies<sup>31</sup>.

Research on the possible benefits of self-compassion for adjustment among arthritis patients is limited but promising. In one study of patients with persistent musculoskeletal pain self-compassion was associated with lower negative affect and higher positive affect, as well as lower levels of pain catastrophizing and pain related disability after controlling for demographic factors<sup>32</sup>. An investigation with arthritis patients provides further support for the buffering effects of self-compassion. In a cross-sectional study, arthritis patients with higher levels of self-compassion had lower levels of stress in part because of their use of adaptive coping strategies such as active coping and positive cognitive restructuring, and less use of avoidant and escape oriented coping<sup>33</sup>. Given the cross-sectional nature of both these investigations it is clear that further longitudinal and intervention based research is needed to verify the proposed benefits of self-compassion for adjustment to arthritis.

### Conclusion

Research to date provides suggestive evidence for the role of positive psychological personal characteristics and qualities in reducing stress and promoting positive adjustment among arthritis patients. Optimism and benefit finding are two such qualities which appear to be linked to markers of psychological and physical well-being in both cross-sectional and longitudinal studies. However, disease-related factors such as illness duration and pain severity may limit the extent to which these qualities can serve as resilience factors for the stress related to living with arthritis. Although there is less empirical support for gratitude and self-compassion, theoretical accounts of the potential benefits of these qualities combined with emerging cross-sectional and longitudinal research examining how they may be implicated in the adjustment process are promising and warrant further

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research attention especially given that each of these qualities can be increased through targeted interventions.

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