RESILIENCE RESOURCES CONTRIBUTE TO BETTER HEALTH OUTCOMES AMONG PATIENTS WITH RHEUMATOID ARTHRITIS

Abstract

Symptoms of physical debilitation, pain, joint swelling and depression are well documented to be influenced by psychosocial factors in addition to physiological factors in predicting disease worsening among patients with Rheumatoid Arthritis (RA) (Evers, 2003). Psychology and the biopsychosocial model have traditionally focused on identifying the negative environmental and behavioral conditions that contribute to stress and illness across various populations. However, a growing body of literature suggests resilience resources play an equally important role, aiding in adaptation and well-being (Fredrickson, 1998; Ryff, 1989; Zautra, Johnson & Davis, in press). A number of such resources, including positive emotions, (Affleck & Tennen, 1996; Zautra, Johnson & Davis, in press), self-efficacy (Bandura, 1986; Geisser, Robinson, Miller & Bade, 2003), and an individual's sense of purpose in life (Ryff, 1989) have been linked to health and well-being. This study investigates the role of these individual resilience resources above and beyond the traditional risk factors in predicting mental and physical health outcomes among 124 RA patients. Our investigation shows that negative environmental factors such as income level and negative behavioral conditions such as interpersonal stressors, and negative affect correlated with self reports of physical and mental functioning, depression and fatigue. The Resilience factors of purpose in life, positive affect and self-efficacy also correlated with these health outcomes. Using stepwise regression analyses for each of these outcomes, placing negative environmental and behavioral conditions on the first steps, resilience factors still explain 24.4% of the variance in physical functioning, 13.8% in mental health, 8.8% in depression, and 23.4% in fatigue. These findings suggest resilience resources are a critical component in understanding individual health outcomes and should be targeted in cognitive behavioral treatment for RA pain patients.

Research questions:

* What is the contribution of resilience resources above and beyond risk factors in predicting health outcomes?
* Are there differences in prediction across various health outcomes, such as physical health, mental health, depression and fatigue?

Data Analysis

Stepwise Regression Analysis tested the effects of negative structural conditions, negative stressful events and resilience resources in predicting physical health, mental health, fatigue and depression.

Results

* *Income was significantly correlated with physical health, education, purpose in life, positive affect and self-efficacy at p<.01 and mental health at p<.05
* Resilience Resources were significant predictors of all four health outcomes. Accounting for 29.4% of the variance in physical functioning, 13.8% in mental health, 8.8% in depression, and 23.4% in fatigue.

* The significant contribution of resilience resources held true whether it was entered either before or after negative stressful events in the stepwise regression equation.

Conclusions

* Resilience resources are important in understanding individual adaptation to chronic illness.
* Purpose in life, positive affect and self-efficacy seem to be particularly important in predicting better physical health outcomes.
* Clinical interventions for individuals with chronic illness should be developed and validated to foster resilience resources that have been shown to predict both mental and physical well-being.
* Further research should examine the role of other risk and resilience factors and their differential impact on positive health outcomes.

References


### Tables

#### Proportion of Variance Explained in Mental Health (SF-36)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Income</th>
<th>Education</th>
<th>Negative Structural Conditions</th>
<th>Negative Stressful Events</th>
<th>Resilience Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-36 Physical health</td>
<td>0.274**</td>
<td>0.034</td>
<td>0.081</td>
<td>0.025</td>
<td>0.335**</td>
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<tr>
<td>SF-36 Mental health</td>
<td>0.206*</td>
<td>0.079</td>
<td>0.038</td>
<td>0.022</td>
<td>0.328**</td>
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<tr>
<td>Fatigue</td>
<td>0.062</td>
<td>0.051</td>
<td>0.044</td>
<td>0.015</td>
<td>0.081</td>
</tr>
</tbody>
</table>

#### Proportion of Variance Explained in Depression (HDS)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Income</th>
<th>Education</th>
<th>Negative Structural Conditions</th>
<th>Negative Stressful Events</th>
<th>Resilience Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>0.231*</td>
<td>0.091</td>
<td>0.112</td>
<td>0.030</td>
<td>0.329**</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level
*Correlation is significant at the 0.05 level