Assessment of Perceived Severity of Disease and Symptoms, Quality of Life, Work Productivity and Healthcare Resource Use in Individuals with Multiple Sclerosis

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Abstract

Objectives: To study the association between perceived severity of disease (mild, moderate, or severe) and individual health outcomes in US individuals with MS.

Methods: A total of 536 individuals with a physician-diagnosed MS diagnosis were recruited from the 2009 National Health and Wellness Survey (NHWS) to complete an extended version of the NHWS survey. Data were analyzed using bivariate and multivariate analyses. The primary outcomes were: demographic characteristics, disease severity, symptoms, quality of life, work productivity, and healthcare resource use. Results: Compared with individuals with moderate MS, significantly more individuals with mild MS had an annual income between $25,000-$49,999 and those reporting it as mild and moderate than between those reporting it as moderate and severe. More individuals with severe MS had an annual income between $75,000-$99,999. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $30,000-$49,999 and those reporting it as moderate and severe than between those reporting it as mild and moderate. More individuals with severe MS had an annual income between $100,000-$124,999. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $150,000-$199,999. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $200,000-$299,999 and those reporting it as moderate and severe than between those reporting it as mild and moderate. More individuals with severe MS had an annual income between $300,000-$399,999. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $400,000-$499,999 and those reporting it as moderate and severe than between those reporting it as mild and moderate. More individuals with severe MS had an annual income between $500,000-$999,999. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $1,000,000 or more and those reporting it as moderate and severe than between those reporting it as mild and moderate. More individuals with severe MS had an annual income between $2,000,000 or more. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $3,000,000 or more. Compared with individuals with mild MS, significantly more individuals with moderate MS had an annual income between $5,000,000 or more. Comparison between income and severity is limited by the small sample size of those with income $5,000,000 or more. Conclusion: Generally, those with more severe disease reported greater impairment. For many of the variables examined, more significant differences were found between individuals who perceive their disease severity as mild vs. moderate than between those individuals reporting it as moderate vs. severe. These differences could be due to the fact that the mild and moderate group sample size is 5 to 4 times larger than the severe group.

Results (continued)

Table 3. Outcomes for Individuals with Self-reported Mild, Moderate and Severe MS

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalization</td>
<td>1.72</td>
<td>1.60</td>
<td>1.29</td>
<td>0.044</td>
</tr>
<tr>
<td>Work Productivity</td>
<td>1.72</td>
<td>1.60</td>
<td>1.29</td>
<td>0.044</td>
</tr>
<tr>
<td>Office absenteeism</td>
<td>1.72</td>
<td>1.60</td>
<td>1.29</td>
<td>0.044</td>
</tr>
<tr>
<td>Work absenteeism</td>
<td>1.72</td>
<td>1.60</td>
<td>1.29</td>
<td>0.044</td>
</tr>
<tr>
<td>Work productivity loss</td>
<td>1.72</td>
<td>1.60</td>
<td>1.29</td>
<td>0.044</td>
</tr>
<tr>
<td>Involuntary unemployment</td>
<td>1.72</td>
<td>1.60</td>
<td>1.29</td>
<td>0.044</td>
</tr>
</tbody>
</table>

References


Acknowledgments

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Limitations

- Data for this study were obtained through online self-report.
- The analyses are descriptive baseline statistics — potential confounders were not adjusted for.
- The results of this study may not generalize to all individuals with MS.