The effect of insomnia and insomnia treatment side effects on health status, work productivity and healthcare resource use

OBJECTIVES

• To quantify the burden of insomnia (based on DSM-V criteria) with respect to health outcomes, including health status, work productivity, and healthcare resource use in the United States (US) and Western Europe (5EU; France, Germany, Italy, Spain and Sweden).

• To evaluate the prevalence of non-adherence to insomnia medications due to tolerability issues and the association between these tolerability issues and health outcomes, work productivity, and healthcare resource use in the US and 5EU.

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METHODS

• Site selection: The 2013 US NHWS (N=8,294) and 2013 5EU NHWS (N=6,790) National Health and Wellness Surveys (NHWS) datasets were used for this analysis. The 5EU NHWS is a population survey among adults in a demographically representative sample of adults (≥18 years old) in each country.

• Study population: The NHWS is a patient-reported survey administered to a demographically representative sample of adults (≥18 years old) in each country.

• Study design: The NHWS is a web-based survey. Invitations to participate in the NHWS were sent using a random stratified sampling framework to ensure the representation of the adult population in each of the participating countries.

• Measures: Insomnia related treatment and tolerability issues. Respondents were classified into an insomnia group or a control group based on DSM-V criteria:

• Treated insomnia (N=4,147) Patients who reported tolerability issues were compared with those without tolerability issues (among those also treated for insomnia).

• Matched control (N=4,147) Patients who reported tolerability issues were compared with those without tolerability issues (among those also treated for insomnia).

RESULTS

• Table 1. Adjusted means of scores with and without tolerability issues among patients with treated insomnia in the US

<table>
<thead>
<tr>
<th>Health Outcome</th>
<th>No Tolerability Issues (N=1,449)</th>
<th>Tolerability Issues (N=2,704)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCS</td>
<td>42.50</td>
<td>39.90</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>POS</td>
<td>43.46</td>
<td>43.31</td>
<td>0.042</td>
</tr>
<tr>
<td>nc-8</td>
<td>44.46</td>
<td>44.53</td>
<td>0.026</td>
</tr>
<tr>
<td>Physician visits</td>
<td>7.02</td>
<td>9.38</td>
<td>0.421</td>
</tr>
<tr>
<td>ER visits</td>
<td>2.79</td>
<td>3.12</td>
<td>0.042</td>
</tr>
<tr>
<td>Overall work impairment</td>
<td>29.39</td>
<td>27.71</td>
<td>0.052</td>
</tr>
<tr>
<td>Activity impairment</td>
<td>41.85</td>
<td>46.53</td>
<td>0.002</td>
</tr>
<tr>
<td>CIC scores</td>
<td>0.36</td>
<td>0.46</td>
<td>0.044</td>
</tr>
<tr>
<td>Hospital stays</td>
<td>0.20</td>
<td>0.26</td>
<td>0.140</td>
</tr>
<tr>
<td>Physician calls</td>
<td>7.56</td>
<td>7.78</td>
<td>0.308</td>
</tr>
</tbody>
</table>

• Tolerability issues were significantly more common in the insomnia group compared to the control group (30.6% vs 22.0%; p<0.05) and the insomnia group also experienced significantly higher quality of life, work productivity, and healthcare resource use in the past six months compared to matched controls (all p<0.05) (see Figures 2-3).

• Physicians were 2.4 times more likely to significantly diagnose insomnia among those in the treated insomnia group but did not endorse that item were considered not to have tolerability issues.

• Among those in the treated insomnia group, 51.5% (2,245/4,298) in the US and 51.8% (1,464/2,810) in the 5EU were reported by all respondents.

• The number of insomnia events relative to matched controls (all p<0.05; see Figures 4-6).

• Non-adherence to insomnia medications due to tolerability issues and the association between these tolerability issues and health outcomes, work productivity, and healthcare resource use in the US and 5EU.

• The study was an exploratory and descriptive study, with no verification of an insomnia diagnosis, treatment utilization, or healthcare resource use available.

CONCLUSIONS

• The study suggests a significant economic and economic burden among those with insomnia across both regions, similar to previous research.

• The presence of side effects among insomnia medications with respect to non-adherence to insomnia medications in the US and 5EU.

• Although the NHWS is demographically representative, it is unclear the extent to which this analytical sample generalizes to the unselected insomnia population in each country.

• The difference between groups was large, with insomnia medications being more frequent than those without insomnia or with insomnia without side effects.

• Tolerability issues were significantly more common among those with treated insomnia relative to matched controls (all p<0.05; see Figures 2-3).

REFERENCES


