BACKGROUND

- Irritable bowel syndrome (IBS) is a chronic functional bowel disease, characterized by symptoms of abdominal pain associated with altered bowel habits. IBS is classified into three subtypes based on the predominant stool pattern: IBS with diarrhoea (IBS-D), constipation (IBS-C), or mixed alternating patterns of constipation and diarrhoea (IBS-M or IBS-A).1

- IBS affects 11% of the global population, of which IBS-D accounts for approximately one third of all cases, with prevalence being higher among working-age adults.2

- Patients with IBS-D commonly experience multiple bothersome symptoms including diarrhoea, abdominal pain, urgency and bloating; symptoms can be mild and intermittent but can often be severe or continuous.1 IBS-D symptom severity is often evaluated based on frequency of symptoms and their impact on patients’ daily lives.

- The symptom burden of IBS-D is associated with significant impairments in patient health-related quality of life (HRQoL) as well as increased healthcare resource utilization (HCRU), including physician office visits and hospitalizations, and can also impair a patient’s productivity and ability to work, resulting in substantial economic burden to the patient and society.1,3

- However, information specific to the European population on the humanistic and economic burden of IBS-D is lacking.

OBJECTIVES

- To assess the impact of IBS-D on HRQoL, work productivity and daily activity, and HCRU based on disease severity among samples of adults in the EUS region (France, Germany, Italy, Spain, UK).

- To stratify random sampling was used to ensure that the demographic composition of the survey population was representative of the EU adult population based on governmental statistics with respect to age and sex.

- To diagnose: self-reported being diagnosed with IBS by a physician and reported diarrhoea as the predominant bowel symptom.

- To assess reported experiencing symptoms consistent with IBS-D but did not self-report a physician diagnosis.

- To evaluate IBS-D disease severity based on both diagnosed and undiagnosed patients based on a single item assessing disease severity as:
  - Mild
  - Moderate
  - Severe

- To evaluate:
  - Survey Measures
  - HCRU by IBS-D Severity
  - Work Productivity and Activity Impairment by IBS-D Severity

- To explore:
  - Health and Wellness Survey (NHWS), a self-reported, internet-based population-based survey of the working-age adult population in the EU5 region (France, Germany, Italy, Spain, UK).

- To explore:
  - Multivariable generalised linear models were used to assess HRLQoL, work productivity loss and activity impairment, and HCRU by IBS-D severity after controlling for covariates.

RESULTS

Demographics and Healthcare Characteristics by Disease Severity

- Of 58,161 patients included in the sample population, 1,229 reported having IBS-D (Table 1)

  - Among patients with IBS-D, 620 (50.4%), 499 (40.6%) and 110 (9.0%) reported having mild, moderate and severe IBS-D, respectively.

  - Mean age 46 years; 60.5% of patients were female (Table 1)

  - Table 1. Demographics and health characteristics by severity of IBS-D

- There were no significant differences in the number of days missed annually (15–27, 16–15 and 13–9 days) or percentage scores for absenteeism (66.7%, 7.24% and 5.59%), presenteeism (21.86%, 24.26% and 27.71%) or overall work productivity loss (26.44%, 28.45% and 30.63%) between patients reporting mild, moderate or severe IBS-D, respectively (data not shown)

- Comparisons of adjusted mean SF-36 scores showed significantly greater activity impairment in patients reporting severe IBS-D compared with those reporting moderate or mild IBS-D (Figure 3)

- Patients with severe IBS-D had significantly lower adjusted mean scores for all eight SF-36v2 subscales compared with patients with moderate or mild IBS-D (Figure 1)

- Patients with severe IBS-D had significantly lower adjusted mean scores for all eight SF-36v2 subscales compared with those with moderate or mild IBS-D (Figure 2)

CONCLUSIONS

- Patients with more severe IBS-D experience greater impairments in HRQL and daily activities, and higher HCRU compared with patients with mild IBS-D.

- These results demonstrate the substantial burden of illness imposed by IBS-D and highlight a need for effective treatments to better manage IBS-D symptoms.

- In particular, there is a clear unmet need for more effective management of patients with moderate or severe IBS-D in the EUS.

Table 1. Demographics and health characteristics by severity of IBS-D

<table>
<thead>
<tr>
<th>Disease Severity</th>
<th>Mean Age (years) (SD)</th>
<th>Female (%), n</th>
<th>Smoker (%), n</th>
<th>General Health</th>
<th>Bodily Pain</th>
<th>Vitality</th>
<th>Social Function</th>
<th>Role Physical</th>
<th>Role Emotional</th>
<th>Mental Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>46.2 (15.7)</td>
<td>324 (43.7)</td>
<td>149 (21.6)</td>
<td>45.46 (14.4)</td>
<td>42.0 (14.4)</td>
<td>45.86 (14.4)</td>
<td>37.92 (14.4)</td>
<td>38.22 (14.4)</td>
<td>45.19 (14.4)</td>
<td>46.75 (14.4)</td>
</tr>
<tr>
<td>Moderate</td>
<td>46.2 (15.7)</td>
<td>324 (43.7)</td>
<td>149 (21.6)</td>
<td>45.46 (14.4)</td>
<td>42.0 (14.4)</td>
<td>45.86 (14.4)</td>
<td>37.92 (14.4)</td>
<td>38.22 (14.4)</td>
<td>45.19 (14.4)</td>
<td>46.75 (14.4)</td>
</tr>
<tr>
<td>Severe</td>
<td>46.2 (15.7)</td>
<td>324 (43.7)</td>
<td>149 (21.6)</td>
<td>45.46 (14.4)</td>
<td>42.0 (14.4)</td>
<td>45.86 (14.4)</td>
<td>37.92 (14.4)</td>
<td>38.22 (14.4)</td>
<td>45.19 (14.4)</td>
<td>46.75 (14.4)</td>
</tr>
</tbody>
</table>

HRQL by IBS-D Severity

- Adjusted mean MCS summary scores were significantly lower in patients with severe IBS-D compared with those with moderate or mild IBS-D (Figure 1)

- Similarly, patients with severe IBS-D had significantly lower adjusted mean PCS scores than those with moderate or mild IBS-D (Figure 1)

- Patients with severe IBS-D had significantly lower adjusted mean scores for all eight SF-36v2 subscales compared with patients with moderate or mild IBS-D (Figure 2)

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