Utilization of antidepressants

Distress: Dysthymia and minor depression: Patients taking at least one antidepressant drugs in past 30-day. In 2015-2016 survey was 57.4%, reflecting an increase of 28.7% (p-value<.001) compared to the 2005-2006 survey.

• A significant increase was observed across all categories of antidepressant other than from tricyclic antidepressants. The largest increase was seen in SSRI (increase of 69% from a baseline of 20.5% in 2005-2006 survey to 32.0% in 2015-2016 survey) followed by SNRIs (increase of 23.2% between the two survey periods).

• Among survey participants with severe depression, the increase in proportion of patients taking SSRI and atypical antidepressants over the evaluation period was in excess of 70% (Table 2)

Table 2: Utilization rate of antidepressants stratified by severity of Depression

<table>
<thead>
<tr>
<th>Class of Antidepressants</th>
<th>Overall Distress</th>
<th>Overall Depression</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI</td>
<td>57.6%</td>
<td>54.0%</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Tricyclic antidepressants</td>
<td>5.7%</td>
<td>4.0%</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Atypical antidepressants</td>
<td>5.5%</td>
<td>4.6%</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>SDAM</td>
<td>1.2%</td>
<td>1.0%</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

Table 3: Characteristics of NHANES participants included in analysis

- The mean age of NHANES participants with depression was 47 years. Depression patients with antidepressant drugs used slightly more with mean age 50 years.

- Of those who had depression and were on antidepressants:
  - >20% of them were above 450% FPL.
  - 51.4% had some college or higher education.
  - 46.8% were female.
  - 14.4% were below poverty level.

- The analysis revealed a significant increase in the proportion of depression patients on antidepressants in the last decade, with significant variability seen among races, racial groups, and comorbidities.

- Overall, the utilization rate of SSRI, atypical antidepressants, SNRI and SDAM classes showed an increase while tricyclic antidepressants use rate decreased in the last decade. The utilization rate of SSRI, atypical antidepressants, SNRI and SDAM classes showed an increase.

- This study also identified certain socio-demographic factors, comorbidities and lifestyle habits that influence the rate of use of antidepressants in the US population.

- The rising use of antidepressants highlights the need for further research into understanding the factors that lead to such an increase.

CONCLUSION

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REFERENCES


Mazumder D, Ph.D: Kaul A, MA; Tyagi R, MPH; Potluri R, MBA
SmartAnalyst India Pvt. Ltd., Gurgaon, India; SmartAnalyst Inc., New York, USA

BACKGROUND

• Depression is the leading cause of disability and ill health across the globe, and affects over 300 million people. One of the most common mental health issues in the US, depression affects over 15.9% of the adult population. It has been reported that the prevalence has increased from 5.4% in 2005-06 to 7.4% in 2015-16.

• Antidepressants are the cornerstone drug choice for treatment of depression. It is of interest to evaluate the rate of use of antidepressants over the last few years among patients suffering from depression.

OBJECTIVES

• The aim of the study is to assess the utilization of antidepressants in the US population suffering from depression. The period from 2005 to 2016, strafied by the severity of depression.

• To assess the utilization rate among selected socio-demographic characteristics, comorbidities and lifestyle factors.

METHODS

• This study used the US National Health and Nutrition Examination Survey (NHANES) data of six combined cycles (2005-16) to provide a population-based estimate for the prevalence of depression and utilization of antidepressant drugs.

• NHANES is a nationally representative study designed to assess the health and nutritional status of non-institutionalized civilians in the US. Collection of information occur through home visits and exams in mobile centers.

• The Patient Health Questionnaire (PHQ-9) was used to identify depression (PHQ-9 score ≥10), and category depression into three severity levels— mild (PHQ-9 score 10-14), moderate (15-19) and severe (20-27).

• Patients with at least one prescription drug in the past 30 days were included in this study.

• Antidepressant classes that were considered included selective serotonin reuptake inhibitors (SSRIs), Monoamine oxidase inhibitors (MAOIs), tricyclic antidepressants, atypical antidepressants, serotonin-norepinephrine reuptake inhibitors (SNRIs), serotonin-dopamine antagonists (SDAMs) and other agents (NMDA).

• Statistical analysis was performed using SAS version 9.4. Procedures SURVEYFREQ, SURVEYLOGISTIC and SURVEYREG were used with appropriate strata were used.

RESULTS

• A total of 29,303 participants from six combined cycles (2005-16) from the NHANES were included in the analysis, of which 2,584 participants suffered from depression.

• If those, 1,058 patients had taken at least one prescription drug in the past 30 days, and 732 (44.1%) participants had taken at least one antidepressant drugs (Figure 1).

Table 1: Characteristics of NHANES participants included in analysis

<table>
<thead>
<tr>
<th>Patients with depression (&gt;10)</th>
<th>Overall Distress</th>
<th>Overall Depression</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age ≥40</td>
<td>50.4 (0.52)</td>
<td>50.3 (0.7)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Gender: Female (%)</td>
<td>48.0%</td>
<td>47.7%</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Race: Non-Hispanic White (%)</td>
<td>51.4%</td>
<td>48.0%</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Education: College and above</td>
<td>38.8%</td>
<td>48.7%</td>
<td>&lt;0.0001</td>
</tr>
</tbody>
</table>

Figure 1: Selection of study population

- Of those who had depression and were on antidepressants:
  - >20% of them were above 450% FPL.
  - 51.4% had some college or higher education.
  - 46.8% were female.
  - 14.4% were below poverty level.

- The prevalence of depression among adults aged 20 and over in the US has increased significantly from 2005-06 to 2015-16 (PHQ-9 score ≥10).

- Antidepressant utilization rate among males increased by 53.2% (p-value<0.001) compared to 21.5% (p-value<0.001) in females between the two survey periods.

- The likelihood of antidepressant drug use was significantly higher among females (OR=1.39, CI=1.08-1.92), and among non-Hispanic whites (OR=2.01, CI=1.53-2.63).

- The likelihood of antidepressant drug use was also significantly higher among comorbid patients with respiratory disease (OR=1.44, CI=1.08-1.82) and abuser patients (OR=1.39, CI=1.01-1.91) (Figure 3).

Figure 3: Odds ratios (OR) of antidepressant drugs usage by socio-demographic characteristics, comorbidities and lifestyle factors

Limitation of antidepressants usage

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