OBJECTIVE

The objective of this study was to identify the differences in OTC sleep aid use among older men and women.

METHODOLOGY

Sample

Data were taken from Kantar Health’s 2012 US National Health and Wellness Survey (NHWS), a cross-sectional, internet-based, BB acquired a survey of adults (n=75,000). A random stratification methodology was used to represent the demographics of the US regarding sex, age, and ethnicity, including n=4,950 respondents aged 45 years and older. Weightings were applied using the US Census to reflect the adult population in terms of age, sex, race, and ethnicity.

Methods

The study was approved by the Texas Institutional Review Board (San Antonio, USA).

Methodology

Respondents

Respondents indicated whether they had experienced a list of somnolences in the past 12 months, including insomnia and sleep difficulties (Insomnia). Respondents indicating insomnia/SID were asked about OTC specifically for that condition.

All respondents were asked if they regularly experience a sleeplessness symptoms or problems. Respondents indicating any of the following symptoms were considered to have “sleeplessness symptoms”:

- Difficulty falling asleep
- Waking up during the night and not being able to get back to sleep
- Waking up too early (such as before the alarm clock)

If respondents indicated they were using an OTC/herbal product for insomnia/SD, they were given the opportunity to specify the type of product and days using each product in the past month.

ACCOUNTS

Anticholinergic use was defined as the simultaneous use of an OTC sleep aid and any product containing an anticholinergic (such as diphenhydramine or doxylamine). The Anticholinergic Cognitive Burden List developed by the Healthy Aging Brain Center was used.

RESULTS

Prevalence of Sleeplessness Symptoms and Insomnia/SD by Sex and Age

- In the projected 4.3 M (95% CI: 4.1, 4.5) adults aged 65+, 18.1% (95% CI: 17.9, 18.4) reported both regular sleeplessness symptoms and insomnia/SD (Figure 1).
- Men were more affected (22.1%) as compared to women (15.8%) and older adults (Aged 65+ Years: 27.1% vs. 21.1% vs. 27.5% for men, women, and older adults respectively (Table 1)).

Table 1. Sleep Symptoms and Problem Severely Experienced among Older Adults Reporting Sleeplessness Symptoms and Insomnia/SD by Sex and Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>N (%)</th>
<th>N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,254</td>
<td>844</td>
<td>240</td>
</tr>
<tr>
<td>Female</td>
<td>2,526</td>
<td>1,149</td>
<td>189</td>
</tr>
<tr>
<td>Male</td>
<td>1,873</td>
<td>252</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>681</td>
<td>189</td>
<td>-</td>
</tr>
</tbody>
</table>

- Women were also more likely to report “difficulty falling asleep” (14.4% vs. 11.0% and 47.8% vs. 44.0% for men, women and older adults respectively (Table 2)).

Table 2. Days per Month Using DPH/DOX among Sex and Age Groups

<table>
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- Although more women were more likely to use DPH/DOX, men reported using the products more frequently.

- Use was more common among women aged 65 (47.1%) vs. men (47.6%) and older adults (49.0%), with 67% of patients aged 65 and over (n=1,149) being female (p<0.05).

- In both age groups, men were more likely to drink in general (76.4% vs. 61.8% aged 65+ vs. 60.6% vs. 44.0% aged 75+ (p<0.05)).

- Additionally, more men than women in both age groups reported using DPH/DOX products for more than 2 weeks, which is against recommended label use (46.3% vs. 33.8% aged 65+ vs. 39.4% vs. 30.3% aged 75+ (p<0.05)).

- Alcohol use was also highly prevalent among DPH/DOX users, although concurrent use is not addressed in the current recommendations (34.8% vs. 23.9% aged 65+ vs. 33.9% vs. 23.9% aged 75+ (p<0.05)).

- Among DPH/DOX users, men were both more likely to drink in general (76.4% vs. 61.8% aged 65+ (p<0.05) vs. 60.6% vs. 44.0% aged 75+ (p<0.05)) and more likely to drink regularly (20.5% vs. 10.0% aged 65+ (p<0.05); 23.5% vs. 14.4% aged 75+ (p<0.05)) (Figure 4).

- Using Rx with anticholinergic properties was common among DPH/DOX users (23.6% vs. 19.5%).

- Women in both age groups were more likely to use these than men (10.6% vs. 24.8% for 65+ vs. 75+ (p<0.05)).

LIMITATIONS

- The older population represented in the survey is likely healthier than the general elderly population, as they were nominated through internet recruitment.

- These data are cross-sectional in nature, and therefore causality cannot be assumed.

- These data may have gender and age reporting on these products.

- Due to small sample sizes, many comparisons did not show statistical significance.

CONCLUSIONS

- Sleeplessness and insomnia/SD affect over six million estimated elderly people in the US.

- DPH/DOX use is quite common in the elderly, with over one million estimated users, although the anticholinergic properties of these agents are known to have special risks for this vulnerable population.

- Both sexes are at risk; a larger number of older women use the products and they are more susceptible to health issues. Men are more frequent users and more likely to use alcohol, which may increase the risk of anticholinergic toxicity.

- These data show a clear need for discussion with older adults about their OTC sleep aid use, with special consideration for concomitant alcohol use, frequency of use, and use of other anticholinergic drugs that may put them at greater risk for cognitive impairment.

ACKNOWLEDGEMENTS

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REFERENCES


5. Kantar Health, Princeton, NJ, USA; Kantar Health, Horsham, PA, USA.