UNDERSTANDING DIFFERENCES AMONG ERECTILE DYSFUNCTION PATIENTS GLOBALLY

Chapnick, J.; Gross, H.J.; Pomerantz, D.; Mould, J.
Kantar Health, Princeton, NJ; Pfizer, Inc., New York, NY

ABSTRACT

OBJECTIVES: Erectile dysfunction (ED) is a common sexual problem in men, although under-reporting of ED is widespread. This analysis seeks to explore the prevalence of the condition across selected geographies and to compare the profile of sufferers among men identifying with ED problems.

METHODS: Data from 96,711 men interviewed in the US, EU (UK, France, Germany, Italy, Spain), Japan (JP), China (CH), Brazil (BR), and Russia (RU) National Health and Wellness Surveys (NHWS), a cross-sectional internet or CAWI-based survey representative of the adult population, conducted in 2011 or 2012. Data were weighted based on sex and age for each region. Men were classified as having ED if in the past 3 months, they had difficulty achieving or maintaining an erection. Health-related quality of life (HRQoL) was assessed with the SF-12v2, and activity impairment was measured with the Work Productivity and Activity Impairment Questionnaire (WPAI). Comparisons between patient groups were made with chi-square tests for categorical variables and ANOVAs for continuous variables.

RESULTS: Prevalence of ED differs significantly across geographies, with Japan having the highest percentage (42.6%, 7.1 M) followed by China (34.7%, 8.8 M) and US (33.7%, 37.6 M), and Brazil having the lowest (23.4%, 3.0 M) (p < 0.05). In the established market (US, EU, Japan), ED sufferers are significantly older (mean ages 51, 57, and 54, respectively) than in emerging markets (CH, BR, RU) (mean ages 45, 44, and 42, respectively). Men with ED in Russia had significantly lower PCS (42.0) and MCS (49.5) QoL scores compared to all other regions (p < 0.05). Men with ED in China reported the greatest degree of work productivity loss (46% ± 20%, p < 0.05) and activity impairment (53% ± 38.3%, p < 0.05).

CONCLUSIONS: Cross-regional comparisons of ED can provide insights to the magnitude of the problem and assess disease burden among men with ED.

INTRODUCTION

• Erectile Dysfunction (ED), defined as the inability to achieve or maintain an erection for satisfactory sexual performance, is a worldwide problem that is rapidly increasing in prevalence as the population ages. Although increasing age does not itself cause ED, many comorbidities associated with age can lead to decreased sexual function. 1
• ED can be caused by many factors: physical conditions such as cardiovascular disease; lifestyle factors such as drinking alcohol, smoking, and overweight/obesity; and psychological causes such depression, anxiety, and stress. 2
• Underreporting of ED is common due largely to the embarrassing nature of the condition. Therefore, prevalence is difficult to estimate. 3

OBJECTIVES

To estimate the prevalence of ED in established and developing markets and to compare profiles of men with ED in across geographies.

METHODS

Data Source

• Data were taken from the Kantar Health National Health and Wellness Survey (NHWS), a cross-sectional internet-based survey representative of the adult population of each respective country. China and US data used were from the 2012 NHWS and Brazil, Russia (RU) data from the 2011 NHWS. Japan data was obtained through a recontact study in 2011 using NHWS respondents. Data were weighted to represent the total adult populations of Brazil, SEU, Japan, US, and the total urban populations of China and Russia.

Sample

The study included male respondents who self-reported experiencing difficulty achieving or maintaining an erection in the past six months.

Measures

• Health-related quality of life (HRQoL) was assessed using the SF-12 Health Survey (SF-12v2) for surveys completed in 2011 and the SF-36 Health Survey for surveys completed in 2012. 4 Work and activity impairment were measured with the Work Productivity and Activity Impairment Questionnaire (WPAI). 5 Comparisons between patient groups were made with chi-square tests for categorical variables and ANOVAs for continuous variables.

RESULTS

Table 1: Prevalence and Treatment of Men with Self-reported ED Across Geographies

<table>
<thead>
<tr>
<th>Region</th>
<th>Sample Size</th>
<th>Prevalence of ED</th>
<th>Treatment of ED</th>
<th>Prescribing Physician</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. 2012</td>
<td>935,083</td>
<td>23.4%</td>
<td>58.3%</td>
<td>Urologist 15.1%</td>
</tr>
<tr>
<td>SEU 2011</td>
<td>616,300</td>
<td>20.1%</td>
<td>51.1%</td>
<td>Urologist 13.7%</td>
</tr>
<tr>
<td>Japan 2011</td>
<td>347,430</td>
<td>24.8%</td>
<td>58.5%</td>
<td>Urologist 28.1%</td>
</tr>
<tr>
<td>China 2012</td>
<td>347,430</td>
<td>34.7%</td>
<td>83.4%</td>
<td>Urologist 35.2%</td>
</tr>
<tr>
<td>Brazil 2011</td>
<td>347,430</td>
<td>33.7%</td>
<td>87.8 M</td>
<td>Urologist 37.6 M</td>
</tr>
<tr>
<td>Russia 2011</td>
<td>347,430</td>
<td>22.8%</td>
<td>63.3 M</td>
<td>Urologist 5.2 M</td>
</tr>
</tbody>
</table>

Men with self-reported ED in developed markets were significantly older than in emerging markets. Men in SEU were the oldest (56.2), followed by US (51.1) and Japan (51.9). Men in the emerging markets averaged their mid-40s (see Table 2).

Table 2: Risk Factors Among Men with Self-reported ED Across Geographies

<table>
<thead>
<tr>
<th>Region</th>
<th>Sample Size</th>
<th>Mean Age (years)</th>
<th>Current Smoke</th>
<th>Overweight</th>
<th>Diabetes</th>
<th>High Blood Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. 2012</td>
<td>935,083</td>
<td>45.1</td>
<td>24.3%</td>
<td>34.9%</td>
<td>27.1%</td>
<td>35.3%</td>
</tr>
<tr>
<td>SEU 2011</td>
<td>616,300</td>
<td>49.5</td>
<td>24.0%</td>
<td>34.7%</td>
<td>27.0%</td>
<td>35.4%</td>
</tr>
<tr>
<td>Japan 2011</td>
<td>347,430</td>
<td>51.0</td>
<td>24.0%</td>
<td>34.6%</td>
<td>27.0%</td>
<td>35.3%</td>
</tr>
<tr>
<td>China 2012</td>
<td>347,430</td>
<td>49.5</td>
<td>24.3%</td>
<td>34.9%</td>
<td>27.1%</td>
<td>35.3%</td>
</tr>
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<td>347,430</td>
<td>49.5</td>
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</tr>
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<td>24.3%</td>
<td>34.9%</td>
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<td>35.3%</td>
</tr>
</tbody>
</table>

CONCLUSIONS

• Men with ED in China had the highest overall work impairment (33.5%), and Japan and Brazil had the lowest (13%). Activity impairment followed the same trend seen in overall work impairment (see Figure 3).

DISCUSSION

• Results from the NHWS are comparable with a study in 2005 comparing rates of ED in Brazil, Italy, and Japan; Japan had the highest rate of ED (34%), followed by 17% in Italy and 15% in Brazil. 5
• A survey in the US revealed men felt more comfortable discussing ED with their PCP than with a urologist. 4 This is reflected in the NHWS US results; men in the US were more likely than in any other country to be treated by a PCP (75.8%) and least likely to be treated by a urologist (15.1%).
• Although men in Japan had the highest prevalence of ED, they had fewer risk factors and better outcomes compared to their peers (US, 5EU), but the most likely to seek medical advice. However, studies that specifically examined Japanese men found they had the same risk factors as in other countries. 8 Analysis of Japanese men with ED versus without ED may reveal significant differences in risk factors that are not seen in a global comparison.

REFERENCES


Figure 1: Overall Work and Activity Impairment Among Men with Self-reported ED Across Geographies

Figure 2: Quality of Life Among Men with Self-reported ED Across Geographies

Figure 3: Activity Impairment among Men with Self-reported ED Across Geographies