OBJECTIVE: The effect of mental disorders on absenteeism in Germany has axially increased. They are now the second most common cause of work absence in Germany. The present study reports current estimates of the effect of anxiety and depression on both absenteeism and presenteeism in Germany.

METHODS: Data from the German respondents (N=1598) of the 2019 National Health and Wellness Survey were used in the analysis. Outcome measures included the short-form (SF-12) mental and physical component summary (PCS and MCS) and health utility score and the Work Productivity and Activity Impairment questionnaire. Respondents who reported a diagnosis of anxiety and, respectively, a diagnosis of depression were compared with matched controls matched on demographic and health-history variables using propensity score matching.

RESULTS: 17.3% (95% CI 16.0-18.6%) respondents reported a diagnosis of anxiety (10.4% female, mean age 49.7 years) and 17.5% (95% CI 16.1-18.9%) respondents reported a diagnosis of depression (51.7% female, mean age 48.2 years). Compared with matched control respondents with anxiety reportedly significantly greater absenteeism (15.8% vs. 6.1%; p<0.01) and presenteeism (22.4% vs. 16.4%; p<0.01). Similar findings were observed for depression (absenteeism: 17.6% vs. 7.1%; p<0.01; presenteeism: 36.5% vs. 17.1%; p<0.01).

CONCLUSIONS: Anxiety and depression were associated with significant work impairment along with reduced mental and physical health status in Germany. These results suggest greater awareness, and early treatment could reduce the social and economic burden of these conditions.

BACKGROUND

- Anxiety and unipolar depression affect approximately 16.2% and 8.2% of the German populations, respectively, within 12 months time, belonging to the top three most frequent mental disorders.
- The economic burden of mental disorders is significant. In 2008, mental disorders in Germany led to direct medical costs of 28.6 billion Euros, with effective disorders (e.g., depression) responsible for 5.7 billion Euros alone.
- In 2012, the direct cost of mental disorders added up to 32 billion Euros, representing an increase of 15% vs. 2008.
- Absence from work caused by anxiety disorders represented 14.5% of all days of inability to work in 2012, the second most frequent cause of sick leave after musculoskeletal condition (23.3%).
- Moreover, the inability to work due to mental disorders lasts on average 3.2 days, compared to the further global average of 12.2 days.
- Although statistics are available for the indirect cost burden of mental disorders collectively, less research has been conducted on depression and anxiety specifically within Germany.

METHODS

Data Source

Data were obtained from the 2011 EU National Health and Wellness Survey (NHWS), an annual Internet-based health survey fielded to a sample of 57,132 adults (over 18) in France, Germany, Italy, Spain, and the UK.

Sample

All members of the NHWS from Germany (N=15,001) were included in the analyses.

Measures

- Anxiety and depression: Each respondent was asked whether they had experienced anxiety or depression and, if so, whether these conditions had been diagnosed by a physician. Only respondents who reported a diagnosis were considered to have anxiety and depression, respectively.
- Sociodemographics: Each respondent provided information with respect to their sex, age, marital status, education, and annual household income.
- Health History: Respondents also provided information as to their alcohol use, smoking behavior, exercise behavior, weight and height (used to calculate body mass index), and comorbidities (summarized using the Charlson Comorbidity Index).
- Work impairment: Work impairment was assessed using the Work Productivity and Activity Impairment (WPAI) questionnaire, a 6-item validated instrument which consists of four metrics:
  - Absenteeism: The percentage of work time missed because of one’s health in the past seven days.
  - Presenteeism: The percentage of impairment experienced while at work in the past seven days.
  - Activity impairment: The percentage of time in daily activities because of one’s health in the past seven days.
  - Health utility values: Health utility values derived from the SF-12 using the SF-40 algorithm were also reported.
- Healthcare utilization: The percentage of the national healthcare provider visits, the number of ER visits, and the number of times hospitalized in the past six months were also reported.

Analysis

Respondents who reported anxiety were compared with all respondents who did not report anxiety in terms of sociodemographics and health history using chi-squared tests and ANCOVA tests for categorical and continuous variables, respectively. All variables were entered as covariates in the models. Variables significantly different were then included as part of a propensity score matching algorithm to identify a matched control respondent for every anxiety respondent.

- Post-match, respondents with anxiety and matched controls were compared with respect to work impairment measures, health status, and healthcare resource use using ANOVA/F-tests.
- The same analytical approach as described for anxiety was also undertaken separately for depression.

RESULTS

- Out of 93% (93.8%) respondents reported a diagnosis of anxiety (62.4% female, mean age 44.6 years) and 57% (10.3%) respondents reported a diagnosis of depression (82.2% female, mean age 44.9 years).

Table 1: Sociodemographic and Health History Differences Between Those With and Without Absenteeism

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean ± SD</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Mean ± SD)</td>
<td>44.6 ± 13.69</td>
<td>46.04 ± 15.83</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>CCI (Mean ± SD)</td>
<td>0.66 ± 1.17</td>
<td>0.32 ± 0.80</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Table 2: Health Outcomes Differences Between Those With Anxiety and Depression and Their Respective Matched Controls

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean ± SD</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SF-12: Mental Component Summary</td>
<td>32.97 ± 10.04</td>
<td>45.75 ± 4.65</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>SF-12: Physical Component Summary</td>
<td>42.95 ± 10.46</td>
<td>47.15 ± 4.78</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

DISCUSSION

Respondents with anxiety and depression in Germany were each associated with significant work impairment (approximately double the levels of overall work impairment compared with that of matched controls).

- Of particular note, the data regarding presenteeism suggest the assumption that employees choose to go to work despite their condition, possibly due to the fear of potential penalties on the work according to a recent national survey, 65% of respondents reported that justifying a missing day of work due to mental condition is more awkward for them than a missing day due to bodily condition.

- Compared with matched controls, health status was also significantly reduced, to a clinically relevant degree, among respondents with anxiety and depression and healthcare resource use was higher.

- Given the substantial burden, greater awareness and earlier intervention could help reduce the social and economic burden of these conditions.

LIMITATIONS

- All data were provided through well-report, so diagnoses and health outcomes (e.g., healthcare resource use) were not verified through objective measures.

- Although the German NHWS sample is broadly representative of the German population with respect to age and sex, the results of the anxiety and depression subsamples may not be generalizable.

REFERENCES