multidimensional self-report questionnaire to assess distress, depression, anxiety and somatization. BMC Psychiatry. 2006;6:34.
Abstract

**Purpose** It is unclear when occupational health providers should re-evaluate workers after mental health-related absences from work. The objective of the present study was to investigate the time to recurrence of mental health-related absences, stratified by International Classification of Diseases–Tenth Revision (ICD-10) diagnostic categories.

**Methods** A 10-year observational study of workers employed at a steel mill. Sickness absence data were retrieved from an occupational health register. Mental health-related absences were defined as absence due to emotional disturbance or mental and behavioural disorders. The first mental health-related absence since baseline was called the index episode. Recurrences were defined as mental health-related absences occurring >28 days after recovery from the index episode. The frequency of recurrent mental health-related absence was assessed by the recurrence density (RD) per 1000 person-years. The time to recurrent mental health-related absence was investigated by Kaplan–Meier survival analysis.

**Results** Of 15461 workers, 391 had recurrent mental health-related absences. RD was 30.5, 34.3, 29.9 and 37.7 per 1000 person-years after index episodes due to emotional disturbance, mood disorders, neurotic disorders and other psychiatric disorders, respectively. RDs did not differ across ICD-10 diagnostic categories. The median time to recurrent mental health-related absence was 15.2 months (95% confidence interval (CI) 12.6–17.7) and was shortest for mood disorders (5.2, 95% CI 1.4–8.9 months) and specific psychiatric disorders (5.3, 95% CI 1.0–13.1 months).

**Conclusions** Based on this observational study, we suggest that occupational and primary health care providers consider reviewing the mental health status of workers 6 months after recovery from mental health-related absence.

Introduction

Mental disorders are an increasing cause of workforce sickness absence \(^1\)–\(^4\). After a first mental health-related absence from work, the risk of another mental health-related absence is three times higher than the population incidence \(^5\). Virtanen et al. \(^7\) showed that mental health-related absences recurred more frequently in manual workers (e.g. cleaners, maintenance workers and kitchen workers) than in white-collar workers (e.g. physicians, teachers and other professionals). In the Dutch industrial sector, mental health-related absences were found to recur as frequently in production workers as in office workers \(^8\). Koopmans et al. \(^6\) found the highest recurrence rates after sickness absence due to specific psychiatric disorders. However, the authors did not stratify recurrent mental health-related absences by diagnosis.

Given the increased risk of recurrent mental health-related sickness absence, occupational and primary health care providers might wish to review workers after mental health-related absence. For case finding, we have to take into account the Wilson and Jungner screening criteria \(^9\). Mental disorders constitute an important health problem and there are facilities to diagnose and treat mental disorders before they culminate in mental health-related absence from work. Health care providers could examine a worker’s mental health status and, if necessary, refer for further treatment. However, it is unclear when it may be best to review workers after recovery from mental health-related absence. To answer this question, we investigated the time to recurrence of mental health-related absence, stratified by International Classification of Diseases–Tenth Revision (ICD-10) diagnostic categories.
Results

A total of 15461 workers formed the study population. At baseline, workers (98% men) were on average aged 40.5 (SD = 10.7) and employed as production workers (43%), maintenance technicians (16%), office workers (30%) or supervisors/managers (11%). A total of 1388 workers had an index episode OP certified as emotional disturbance (n = 670), neurotic disorder (n = 565), mood disorder (n = 103) and specific psychiatric disorder (n = 50).

After the index episode, 391 workers had recurrent mental health-related absences. RDs were 34.3 [95% confidence interval (CI) 24.4–44.3], 29.9 (95% CI 27.3–32.5) and 37.7 (95% CI 27.8–47.6) per 1000 person-years for absences due to mood, neurotic and specific psychiatric disorders, respectively. These RDs did not differ from RD = 30.5 (95% CI 28.1–32.3) per 1000 person-years for absences from work due to emotional disturbance, with non-significant RDRs 1.12 (95% CI 0.74–1.72), 0.98 (95% CI 0.82–1.17) and 1.24 (95% CI 0.85–1.80) for mood, neurotic and specific psychiatric disorders, respectively.

The median time to onset of recurrent mental health-related absence was 15.2 months (95% CI 12.6–17.7) after recovery from the index episode. Table 1 shows times to recurrent mental health-related absence stratified by ICD-10 diagnostic category of both index and recurrent mental health-related absences.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>ICD-10</th>
<th>Recurrent episode</th>
<th>Months to recurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N(%)</td>
<td>median (95% CI)</td>
</tr>
<tr>
<td>Emotion disturbance</td>
<td>R45</td>
<td>R45</td>
<td>112 (58)</td>
</tr>
<tr>
<td></td>
<td>F30–39</td>
<td>12 (6)</td>
<td>16.7 (5.0 – 28.4)</td>
</tr>
<tr>
<td></td>
<td>F40–49</td>
<td>68 (35)</td>
<td>17.3 (7.7 – 26.9)</td>
</tr>
<tr>
<td></td>
<td>other</td>
<td>4 (1)</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>193 (100)</td>
<td>11.8 (8.5 – 15.1)</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>F30–39</td>
<td>R45</td>
<td>11 (32)</td>
</tr>
<tr>
<td></td>
<td>F30–39</td>
<td>19 (56)</td>
<td>5.2 (1.4 – 8.9)</td>
</tr>
<tr>
<td></td>
<td>F40–49</td>
<td>4 (11)</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>other</td>
<td>0</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>34 (100)</td>
<td>10.0 (1.0 – 23.1)</td>
</tr>
<tr>
<td>Neurotic disorders</td>
<td>F40–49</td>
<td>R45</td>
<td>50 (32)</td>
</tr>
<tr>
<td></td>
<td>F30–39</td>
<td>14 (9)</td>
<td>15.5 (5.9 – 25.1)</td>
</tr>
<tr>
<td></td>
<td>F40–49</td>
<td>82 (53)</td>
<td>18.2 (9.0 – 27.5)</td>
</tr>
<tr>
<td></td>
<td>other</td>
<td>9 (7)</td>
<td>18.3 (11.0 – 25.6)</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>155 (100)</td>
<td>16.7 (11.9 – 24.9)</td>
</tr>
<tr>
<td>Specific psychiatric disorders</td>
<td>F00–29</td>
<td>F00–29</td>
<td>9 (100)</td>
</tr>
</tbody>
</table>

CI confidence interval
n.a. not analysed because of low number of recurrences
† not stratified by diagnosis because of low number of recurrences
Discussion

Recurrences of mental health-related absence from work did not differ across ICD-10 diagnostic categories. In agreement with Koopmans et al. [6], we found more recurrences (RDR = 1.24) and shorter time to onset (median 5.3 months) after mental health-related absence due to specific psychiatric disorders as compared to absence due to emotional disturbance. However, these differences were not statistically significant, probably due to the low number (50) of specific psychiatric absences.

Although the workers concerned were employed in various occupations, they all worked in the same company and we must therefore be cautious about generalizing the results to other working populations. Furthermore, mental health-related absences lasting <42 days were not OP certified, which may have led to under-estimated RDs, particularly for emotional disturbances (ICD-10 R45) which tend to be of shorter duration than absences due to disorders within the ICD-10 F-categories [8]. As the RD of emotional disorders was the denominator, RDRs might thus have been over-estimated.

Health care providers could consider reviewing a worker’s mental health status 6 months after recovery from mental health-related absence, although half of the recurrent absences due to mood disorders and specific psychiatric disorders would have been missed in our study population. The number of recurrent absences due to mood disorders and specific psychiatric disorders was small and therefore the estimated time to onset may not be representative of the working population. Furthermore, randomized controlled trials would be required to investigate whether reviewing workers in this way actually reduces recurrent mental health-related absences.

References