What bothers the sick-listed employee with severe MUPS?

R HOEDEMAN\textsuperscript{1,2}, AH BLANKENSTEIN\textsuperscript{3}, PC KOOPMANS\textsuperscript{1,2} & JW GROOTHOFF\textsuperscript{2}

\textsuperscript{1}Department of Science, 365 Occupational Health Services, Utrecht, The Netherlands, \textsuperscript{2}Department of Health Sciences, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands, and \textsuperscript{3}Department of General Practice, VU University of Amsterdam, EMGO Institute for Health and Care Research, Amsterdam, The Netherlands

Abstract

\textit{Aims:} The aim of this study was to explore what employees with severe medically unexplained physical symptoms (MUPS) experience as causes of distress with regard to employees with mild or no MUPS. \textit{Methods:} This study is an additional analysis of a cross-sectional study in which 486 sick-listed employees, were assessed with Patient Health Questionnaire (PHQ)-15 for self-rated levels of MUPS. A cut-off score of 15 (≥15) was used to categorise employees with severe MUPS. Distress was qualitatively categorised with the answers on the open question in the PHQ-15 "if you experience distress at this moment, what are you distressed about?" \textit{Results:} Sick-listed employees with severe MUPS were most distressed by their medical, mental, and financial problems. Employees with mild or no MUPS by their medical, work-related, and return to work-related problems. Employees with severe MUPS had more often distress by their mental and financial problems, compared to the employees with mild and no MUPS, who had more often no problems. \textit{Conclusions:} There are differences in the causes of distress in sick-listed employees with severe MUPS compared to those with mild or no MUPS. Exploring these causes create possibilities for the physician to improve the quality of explanations and reassurance to the employee and to remove barriers for the return to work process.

Key Words: Distress, medically unexplained physical symptoms, occupational health physician, sick-listed employees
distressed by work-related factors than employees with mild or no MUPS.

**Materials and methods**

**Type of study**

The present study has a cross-sectional design.

**Population and sampling**

**Patients.** Sick-listed employees were included in the study from April 2006 until December 2007. Their characteristics have been reported elsewhere [6]. Employees with severe MUPS had levels of distress 1.7-times higher than employees with mild or no distress.

**Occupational health physicians.** Forty-three OHPs from five group practices, covering two large occupational health services in the Netherlands, participated in this study. These group practices provided services to organisations with different sizes and from different branches, located in urban and rural areas.

**Data collection.** During a 6-week period, for each participating group practice, all sick-listed employees who had an appointment with the OHP were sent a questionnaire 1 week before the actual consultation. A researcher (RH) collected these questionnaires just before the consultation with the OHP.

**Material**

**Patient questionnaires.** The employee was asked to fill in questionnaires about his or her socio-demographic variables and also questionnaires on:

(a) MUPS, assessed with the Patient Health Questionnaire (PHQ)-15, which rates how much the patient has been bothered, during the past 4 weeks (score 0–2), by 15 common somatic symptoms that rarely have organic causes. The total score ranges from 0–28 in women to 0–30 in men. The cut-off point of 15 (PHQ-15 ≥15) is comparable with clinically representative samples [17,18].

(b) Distress, assessed with the distress subscale of the Four-Dimensional Symptom Questionnaire (4DSQ) [4].

(c) Causes of distress, assessed qualitatively with one open question on the PHQ: “If you experience distress at this moment, what are you distressed about”?

**Analyses**

**Qualitative categorisation of causes of distress.** The answers to the open-ended question were independently and blinded to the other results categorised by the first two authors. The categories should cover the main problem and discriminate between categories. Finally nine categories could be differentiated. If the employee had given more answers which could be categorised to two of more categories, the first given answer was chosen. The categories chosen by the two authors were compared, and the differences were solved by discussion until consensus was reached.

**Statistical analysis.** For the employee’s MUPS score, the data were dichotomised to a PHQ 15+ group (severe MUPS) and a PHQ 15– group (less severe, or no MUPS). We analysed the categorical variables with the chi-squared test or Fisher’s Exact test. All analyses were performed in SPSS for Windows 18.0.

**Results**

Table I presents the causes of distress reported by the sick-listed employees. In the group with severe MUPS, the three most frequently reported causes of distress are medical, mental and private problems. Causes reported most frequently by employees with mild or no MUPS are medical, work-related, and RTW-related problems. Significant differences between employees with severe MUPS versus mild or no MUPS are that employees with severe MUPS more often report mental and financial problems as causes of distress, whereas employees with less MUPS more often report no problems at all.

**Discussion**

All sick-listed employees are bothered by their medical problems. This is in line with the literature [7] and confirms our hypothesis that for sick-listed employees medical problems cause more distress than work-related problems. Distinctions are that employees with severe MUPS have higher levels of distress and that they have longer duration of sickness absence [16]. The results of this study show further that employees with severe MUPS could be more often distinguished by distress about their comorbid mental symptoms and worries about financial problems. Health anxiety, number of symptoms, and age are prognostic factors for an unfavourable course in employees with MUPS [6–8] Health anxiety contributes to selective attention of bodily symptoms [7] and increased medical consumption and depressive
symptoms lower the threshold for experiencing pain and distress [19,20].

Strengths and limitations

The study has some limitations. Firstly, self-report questionnaires were used to assess MUPS. Secondly, this was a cross-sectional study. Causal relations are not clear. Thirdly, the sample of employees had a long duration of sickness absence [16], so the results are not representative for employees with short-term sickness absence. Strengths of the study is that the sample concerns an all-cause and representative population of sick-listed employees, with assessment by validated instruments of MUPS, distress and the causes of distress.

Implications for research

Longitudinal studies in larger samples of working employees are needed to study causal relations: for example, whether mental symptoms and financial problems precede MUPS (mediated by health anxiety) or in reverse order (which would indicate that employees with MUPS become more vulnerable to comorbid mental symptoms and worrying about financial problems) in working employees, from which employees at risk make a transition to a sick-listed status. Associations could also be reciprocal (indicating reinforcement between MUPS, mental symptoms, and financial problems).

There is lack of studies about the diagnosis and treatment of employees with severe MUPS regarding work-related outcomes as functioning and sickness absence. Most evidence is from studies in primary and secondary care populations and therefore indirect. Employees with severe MUPS can be detected more early by use of questionnaires like the PHQ-15 and 4DSQ. Needed are studies in which employees with high scores on such questionnaires (indicating a high somatic symptom severity) and hampering returning to work are referred early to treatments in which they are active like graded activity and multidisciplinary treatment. Other (qualitative) studies are needed to study how physicians can motivate employees with severe MUPS more effectively to participate in treatments which are focused on recovery in functioning.

Practical implications

The results show that the OHP is doing well by primarily exploring and addressing the medical complaints of the employee, as these are a major cause of distress themselves. For employees with severe MUPS, the exploration should be broadened to the mental problems as they give much distress. In this respect, use of questionnaires as the PHQ and 4DSQ are helpful. After establishing the diagnosis, the symptoms, what is good treatment, and what are the consequences with regard to the return to work (RTW) can be explained to the employee. The patient-centered and multifactorial approach is in line with guidelines for management of MUPS [21–23]. When symptoms are very serious or troublesome, the employee can be referred for psychological, psychiatric, or multidisciplinary treatment [21–23].

Furthermore, the data show that the OHP should explore which contextual factors are of importance. An important point of our results is that the employee, due to the distress, is probably not aware of the consequences of the symptoms with regard to hampering the RTW process. In contrast, the OHP should be aware of this and guide the employee in the RTW process and enhance the employee–employer relationship.

The general conclusion is that, although distress is not the determinant of levels of MUPS [6] and longer sickness absence [16], it is important to recognise high levels of distress and to explore the underlying

<table>
<thead>
<tr>
<th>Cause of distress</th>
<th>PHQ 15+ (n=68)</th>
<th>PHQ 15– (n=379)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical problems</td>
<td>27.9</td>
<td>29.5</td>
<td>0.915</td>
</tr>
<tr>
<td>Work-related problems</td>
<td>11.8</td>
<td>19.2</td>
<td>0.175</td>
</tr>
<tr>
<td>Problems related to RTW</td>
<td>10.3</td>
<td>17.3</td>
<td>0.180</td>
</tr>
<tr>
<td>Private problems</td>
<td>16.2</td>
<td>14.6</td>
<td>0.665</td>
</tr>
<tr>
<td>Combination of work and private problems</td>
<td>1.5</td>
<td>0.8</td>
<td>0.482</td>
</tr>
<tr>
<td>Financial problems</td>
<td>5.9</td>
<td>1.1</td>
<td>0.021</td>
</tr>
<tr>
<td>Mental problems</td>
<td>23.5</td>
<td>8.9</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Other causes</td>
<td>2.9</td>
<td>2.2</td>
<td>0.653</td>
</tr>
<tr>
<td>No problems</td>
<td>0.0</td>
<td>6.5</td>
<td>0.036</td>
</tr>
</tbody>
</table>

Values are %.

MUPS, medically unexplained physical symptoms; PHQ, Patient Health Questionnaire; RTW, return to work.
causes. The OHP should help the employee to stay aware of the RTW process.

**Funding**

This study was supported by a grant from the Aladdin Fund (project no. 1.9)

**References**


