Introduction

Mental health problems have been regarded as a major contributor to long-term work absences, which often lead to job loss[1]. Therefore, Japan’s Ministry of Health, Labour and Welfare created the Guideline on Return-to-Work (RTW) for Workers with Mental Health Problem in 2004 (hereafter referred to as the Guideline) [2]. The Guideline, in essence, recommends that employers create an RTW support program for their employees, while also indicating that planning such a support program can be difficult due to the number of factors that are known to affect successful RTW. Furthermore, mental health problems have increasingly contributed to sickness absence and long-term disability, and unfortunately, RTW often ends in failure among patients with mental health problems.

The prognostic factors of successful RTW among workers absent due to mental health problems remain unclear[3]. A few review studies investigated these
prognostic factors: Blank et al. [1] indicated that successful RTW is predicted by factors related to work, family history, health risk behaviors, social status, and medical condition; Cornelius et al. [3] found that the effects of certain prognostic factors (mental health factors, age, history of previous sickness absence, negative recovery expectation, socioeconomic status, unemployment, and the quality and continuity of occupational care) on successful RTW were consistent across several articles, while the effects of other factors (gender, education level, status as the sole breadwinner of the family, and supervisor support) were inconsistent. Therefore, it remains unclear what factors are important for successful RTW among workers with mental health problems.

Predicting RTW outcomes is extremely important, as it is often very difficult to help mental health patients resume their jobs. Psychiatrists or occupational physicians may often permit patients to return to work without solid evidence, justifying these decisions by using only their own clinical experience. In cases where mental health patients were allowed to return to work only because their depressive symptoms had improved, RTW can still fail because these symptoms may recur [4]. Therefore, it is important to identify the further prognostic factors that lead to successful RTW.

To the best of our knowledge, no previous study has investigated what patients with major depressive disorder (MDD) consider important for successful RTW after being absent from work due to their mental illness. Understanding these factors may aid in the development of appropriate interventions that would facilitate RTW. Therefore, the aim of the present study was to identify the factors that workers who had recently returned to work after a sickness absence due to depression consider important for successful RTW.

II. Methods

Procedure

A self-reported questionnaire survey was conducted from October 2006 to February 2007. Before constructing the questionnaire, we conducted unstructured interviews with several patients on what they considered important for successful RTW. We developed the content for these interviews by referring to the Guideline, the Action Checklist for Health Risk Management of Employees Working for Long Hours [5], the Hamilton Rating Scale for Depression [6], and the Montgomery-Åsberg Depression Rating Scale [7]. From these interviews, we derived a list of 29 potentially relevant factors (11 workplace factors and 18 personal factors; Table 1) and selected 20 statements concerning the causes of sickness absence (see Table 2).

Respondents were asked to rate 29 statements concerning successful RTW (Table 1) by using a 5-point Likert scale (1 = not important at all; 5 = very important). We then asked them whether the 11 workplace factors had been implemented in their workplaces to facilitate RTW (Table 3). In addition, respondents were asked to choose which factors they considered to be the primary causes of sickness absence from the 20 statements we developed from the initial interviews. They were also asked to choose a single cause from this list as their top choice. In addition, the questionnaire contained a section on demographic information. The institutional review committee of Chiba University approved the research protocol, and all participants provided written informed consent.

Participants

We asked psychiatrists in 17 psychiatric facilities across Chiba prefecture to select outpatients who had recently returned to work after an absence due to depression. Diagnoses were made using the criteria of the Diagnostic and Statistical Manual of Mental Disorders, 4th ed., Text Revision (DSM-IV-TR) [8]. In this study, 72 psychiatric outpatients responded to the questionnaire. We defined “successful RTW” as working steadily for more than three months after returning to work. Thirty-two participants were excluded from the study, as two did not report their gender, one did not complete the questionnaire, five were diagnosed as adjustment disorder, and 29 had not worked continuously for more than three months after returning to work. Thus, 40 respondents with MDD respondents
A questionnaire survey of return to work

Table 1  Factors considered as important for successful RTW* (N = 40)

<table>
<thead>
<tr>
<th>Statements related to RTW</th>
<th>Mean score</th>
<th>SD†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gradual increase in work hours and amount of work</td>
<td>3.68</td>
<td>0.57</td>
</tr>
<tr>
<td>Sufficient amount of sleep</td>
<td>3.55</td>
<td>0.75</td>
</tr>
<tr>
<td>Supervisor’s support for decline or instability in work performance due to mental health problems</td>
<td>3.50</td>
<td>0.60</td>
</tr>
<tr>
<td>Supervisor’s alleviation of fear of losing one’s job by prolonged sickness absence</td>
<td>3.43</td>
<td>0.71</td>
</tr>
<tr>
<td>Sufficient inclination to return to work</td>
<td>3.38</td>
<td>0.81</td>
</tr>
<tr>
<td>Human relationships in the workplace</td>
<td>3.20</td>
<td>0.82</td>
</tr>
<tr>
<td>No intense feeling of fatigue or lassitude in the morning</td>
<td>3.20</td>
<td>0.99</td>
</tr>
<tr>
<td>Controlling the amount of work by oneself</td>
<td>3.18</td>
<td>0.78</td>
</tr>
<tr>
<td>A significant improvement in depressive symptoms</td>
<td>3.15</td>
<td>0.92</td>
</tr>
<tr>
<td>Atmosphere in the workplace</td>
<td>3.08</td>
<td>1.05</td>
</tr>
<tr>
<td>Sustainment of concentration to work</td>
<td>3.05</td>
<td>0.90</td>
</tr>
<tr>
<td>Personnel relocation</td>
<td>3.03</td>
<td>1.12</td>
</tr>
<tr>
<td>Regular meetings with a supervisor</td>
<td>2.93</td>
<td>1.00</td>
</tr>
<tr>
<td>Explanation of compensation for sickness absence</td>
<td>2.85</td>
<td>1.08</td>
</tr>
<tr>
<td>Certified days off to see a doctor regularly</td>
<td>2.83</td>
<td>1.15</td>
</tr>
<tr>
<td>Participating in and enjoying usual activities</td>
<td>2.83</td>
<td>1.06</td>
</tr>
<tr>
<td>Feeling of being healthy</td>
<td>2.80</td>
<td>1.07</td>
</tr>
<tr>
<td>Engagement in satisfying work</td>
<td>2.80</td>
<td>0.97</td>
</tr>
<tr>
<td>Fulfilling one’s work obligations normally</td>
<td>2.75</td>
<td>0.90</td>
</tr>
<tr>
<td>Coping well with stress</td>
<td>2.75</td>
<td>1.01</td>
</tr>
<tr>
<td>Having optimistic views about work</td>
<td>2.73</td>
<td>1.09</td>
</tr>
<tr>
<td>Staying away from a very incompatible person in the workplace</td>
<td>2.70</td>
<td>1.26</td>
</tr>
<tr>
<td>Having an optimistic view of the general future</td>
<td>2.68</td>
<td>0.94</td>
</tr>
<tr>
<td>Having a sense of accomplishment at work</td>
<td>2.60</td>
<td>0.96</td>
</tr>
<tr>
<td>Feeling of going back to what feels like one’s former self</td>
<td>2.60</td>
<td>1.15</td>
</tr>
<tr>
<td>Feelings of happiness</td>
<td>2.50</td>
<td>0.99</td>
</tr>
<tr>
<td>Satisfaction with one’s present self</td>
<td>2.25</td>
<td>1.08</td>
</tr>
<tr>
<td>Commuting safely to work independently</td>
<td>2.10</td>
<td>1.48</td>
</tr>
<tr>
<td>Freedom from addiction to alcohol or gambling</td>
<td>1.65</td>
<td>1.41</td>
</tr>
</tbody>
</table>

†Return to work.  *Standard deviation.

Table 2  Reasons identified by participants as the most important and important for sickness absence (N = 40)

<table>
<thead>
<tr>
<th>Most important (Single choice)</th>
<th>Important (Multiple choice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td>A weak character</td>
<td>9 22.5</td>
</tr>
<tr>
<td>A relationship with one’s supervisor</td>
<td>7    17.5</td>
</tr>
<tr>
<td>A perfectionistic character</td>
<td>5 12.5</td>
</tr>
<tr>
<td>Amount of work (e.g., Norm)</td>
<td>3 7.5</td>
</tr>
<tr>
<td>Work content</td>
<td>3 7.5</td>
</tr>
<tr>
<td>Long working hours</td>
<td>2 5.0</td>
</tr>
<tr>
<td>Promotion or relocation</td>
<td>2 5.0</td>
</tr>
<tr>
<td>Family problems</td>
<td>2 5.0</td>
</tr>
<tr>
<td>Business-related difficulties</td>
<td>1 2.5</td>
</tr>
<tr>
<td>Relationship with colleagues</td>
<td>1 2.5</td>
</tr>
<tr>
<td>Less familiarity with using new technology (e.g., Computer-related)</td>
<td>1 2.5</td>
</tr>
<tr>
<td>Relationship with subordinates</td>
<td>1 2.5</td>
</tr>
<tr>
<td>No one to go to for advice (e.g., Supervisors, colleagues and friends)</td>
<td>0 0.0</td>
</tr>
<tr>
<td>No family and relatives to go for advice</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Having a few days off</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Shiftwork</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Economic problems (e.g., A loan)</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Frequent business trips</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Graveyard shift</td>
<td>0 0.0</td>
</tr>
<tr>
<td>Moving house</td>
<td>0 0.0</td>
</tr>
</tbody>
</table>
were included in the final sample [37 males and 3 females, mean age (years) = 43.1 (SD = 8.3), mean duration of sickness absence (months) = 10.9 (SD = 11.0), mean duration of RTW (months) = 18.6 (SD = 21.2)].

### III. Results

**Factors considered important for successful RTW**

Table 1 shows what respondents considered important for successful RTW. Among all participants, three of the top five factors were workplace-related: "gradual increase in work hours and amount of work" (3.68, SD = 0.57); "supervisor’s support for the decline or instability in work performance due to mental health problems" (3.50, SD = 0.60); and "supervisor’s alleviation of the fear of losing one’s job due to prolonged sickness absence" (3.43, SD = 0.71). The remaining two were personal factors: "sufficient amount of sleep" (3.55, SD = 0.75) and "sufficient inclination to return to work" (3.38, SD = 0.81). Among the top ten factors, five were workplace factors and five were personal factors. The factor with the highest score was "gradual increase in work hours and amount of work." Generally, psychiatrists consider symptom improvement to be a very important aspect of recovery. However, "significant improvement in depressive symptoms" had only the ninth-highest score in our study. Furthermore, 17 factors had a mean score of lower than three. The factor with the lowest score (1.65, SD = 1.41) was "freedom from addiction to alcohol or gambling".

### Workplace arrangements for successful RTW

Table 3 lists the arrangements typically made in participants’ workplaces that encourage successful RTW. Among all participants, the three most popular arrangements had implementation rates of over 70%: "gradual increase in work hours and amount of work" (90.0%); "supervisor’s support for the decline or instability in work performance due to mental health problems" (72.5%); and "human relationships in the workplace" (70.0%). Five arrangements had rates of less than 50%. The least popular arrangement was "staying away from a very incompatible person in the workplace" (20.0%).

### Causes of sickness absence

Table 2 presents the factors employees considered to be the most important causes of sickness absence. Among all participants, the top three factors considered most important, when asked to make only a single choice, were "weak character" (22.5%), "relationship with one’s supervisor" (17.5%), and "perfectionist character" (12.5%). Eight of the twenty factors were not considered important at all. When participants could choose more than one factor, the top three factors were...
relationship with one’s supervisor (50.0%), “weak character” (47.5%), and “amount of work” (45.0%). Five factors in the multiple-choice selection were rated less than 10%, and thus were considered unimportant.

IV. Discussion

The aim of this study was to identify the personal and workplace factors that patients with depression considered important for a successful RTW, after they returned from leave due to their mental illness. The results show that workplace factors (e.g., “gradual increase in work hours and amount of work”) are considered more important than personal factors (e.g., “improvement in depressive symptoms”) for successful RTW (Table 1). These results support previous findings that the workplace environment must be considered before RTW [9]. We also observed a discrepancy between what factors participants regarded as important for successful RTW and how these factors were implemented in the workplace (Tables 1 and 3). Respondents considered “gradual increase in work hours and amount of work” to be the most important factor, and this was also the most frequently implemented factor in the workplace (90.0%). In contrast, respondents considered “atmosphere in the workplace” and “personnel relocation” important, but these were infrequently arranged in the workplace (<50%). This particular discrepancy suggests that workplace factors can be divided into factors that are easily implemented and those that are more difficult to implement, and as such require coordination from administrative staff to be appropriately implemented in the workplace. Consequently, stakeholders (employees, attending physicians, supervisors, and occupational health staff) should confirm which workplace factors could be arranged most practically for each worker on leave for mental illness before they return to work.

For successful RTW, patients must learn to cope with the factors of sickness absence that they consider to be most influential in preventing them from returning to work. Michie and Williams reviewed studies on the factors associated with absence due to poor mental health [10]: workload, pressure to complete one’s work in a certain amount of time, lack of supportive communication, bullying, etc. Previous studies have indicated that Japanese employees are highly committed to their work, often working for longer hours than employees from most industrialized countries do [11,12]. However, we found that respondents considered “a relationship with one’s supervisor” (22.5%) to be the important contributor to sickness absence, even more so than “work content” (7.5%), “amount of work” (7.5%) and “long working hours” (5.0%), if they were asked to make a single choice (Table 2). This suggests that Japanese workers tend to consider relationships with their and supervisors to be more stressful than their workloads. This is consistent with the findings of a previous study that poor human relationships are related to mental health problems in the workplace [13]. However, measures to improve “human relationships in the workplace” (70.0%) were implemented less often in workplaces, compared with a gradual increase in work hours and amount of work (90.0%; Table 3). In cases where patients are allowed to return to work only because their depressive symptoms have improved, RTW may fail due to the recurrence of these depressive symptoms [14]. Consequently, when stakeholders are evaluating whether a worker should return to work, they should consider not only the alleviation of depressive symptoms but also various workplace factors such as the worker’s relationships with his or her supervisor.

Stakeholders—including patients, physicians, and workplace staff such as occupational health staff and supervisors—by their nature are interested in ensuring a successful RTW for absent workers. Our results indicate how effective workplace arrangements are as important as the improvement in the worker’s mental condition, showing the underlying complexity of a successful RTW [2]. Physicians may be able to indirectly evaluate the work ability of patients by using their observations of how the patients perform daily activities, but they are unable to know directly what that patient’s workplace life is like [14]. In contrast, while occupational health staff and supervisors do not necessarily have sufficient
knowledge and experience of mental illness, they understand their employee’s work environment, which would allow them to help manage how employees interact with workplace factors. Therefore, professionals from a variety of disciplines must work together to ensure a successful RTW, through measures such as sharing information on workers’ mental health condition and implementing various types of support in the workplace.

This study has certain limitations that should be considered. First, the sample size was too small, thereby limiting the generalizability of the conclusions. Thus, future studies with larger samples are required to clarify how differences in patient-specific factors-such as gender, age, and occupation-affect successful RTW. Second, this study did not survey patients whose RTW had failed; therefore, we cannot rule out selection bias. Third, we suspect that our results were influenced by the use of a Japanese sample, as Japanese employees are highly committed to their work and often work longer hours than employees of other industrialized nations[11,12]. Fourth, because our results reflect only the subjective viewpoints of the workers, we cannot claim that they would hold if we used more objective measures.

In this pilot study, we examined the personal and workplace factors that patients with MDD considered important for a successful RTW, after they had returned to work from an absence due to their mental illness. We found that a healthy balance between personal mental condition and workplace environment may be important for successful RTW. Furthermore, we may be able to decrease the risk of unsuccessful RTW if we further examine how exactly those factors that respondents considered particularly important affect RTW; in addition, there may be a number of factors that we did not consider. Thus, further research is required to elucidate the primary prognostic factors that determine successful RTW for people with mental health problems.

Acknowledgements

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