Stability of Factor Structure and Correlation with Perceived Job Stress in General Health Questionnaire: a Three-wave Survey over One Year in Japanese Workers

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Abstract: Stability of Factor Structure and Correlation with Perceived Job Stress in General Health Questionnaire: a Three-wave Survey over One Year in Japanese Workers: Jun Shigemi, et al. Department of Hygiene and Preventive Medicine, Okayama University Medical School—A cross-sectional study was conducted to examine psychological symptoms and job stress in Japanese workers. To assess the stability of the relationship between the parameters for perceived job stress and mental health, two additional surveys were carried out six months and one year later. The surveys included demographic questions, the General Health Questionnaire (GHQ), and questions relating to perceived job stress to measure the worker’s mental health and job stress. Factor analyses were conducted to clarify the factor structure of mental health. As for the GHQ, the 6 dominant factors were interpreted. These factors involved “Anxiety and depression”, “Severe depression”, “Lack of interpersonal network or social support”, “Poor social activity”, “Insomnia”, and “Lack of a positive attitude”. This structure was stable in the 2 follow up surveys. A multiple regression analysis was used to examine the relationship between extracted factors of the GHQ and job stress. The analysis showed that the factor “Anxiety and depression” had a significantly stable relationship with “Too much responsibility at work” and “Cannot keep up with new technology”.


Key words: Perceived job stress, Mental health, GHQ, Factor analysis, Multiple regression analysis

With advances in computer technology and office and factory automation, the type of labor that many workers engage in has changed significantly, often from physically-oriented to mentally-oriented tasks. In Japan, the proportion of workers who had great anxiety or perceived their job as difficult increased from 51% in 1982 to 57% in 1992. The workplace today is therefore widely thought to be more emotionally and mentally stressful than the typical workplace hither to. Several studies have examined the relationship between job stress and mental health. The mental health state and job stress of workers may have various aspects. It is not enough to estimate the mental health state and job stress solely by the total score in a questionnaire but there have been few studies in Japan that investigated these factors which clarify the mental and emotional state of workers. Moreover, the stability of the factor structure has not been investigated. It was reported that the total score in psychometric tests including the GHQ (General Health Questionnaire) was decreased after a retest of the questionnaire. Therefore, the factor structure of the GHQ might have changed due to the retest effect of the questionnaire. Incidentally, in our previous study, specific perceived job stress as work overload was closely related to mental ill health in both a cross-sectional and a cohort study. In addition, an unsuitable job was a significantly related to mental health in a nested case-control study in a cohort and a longitudinal study. Other studies confirmed an adverse effect of job overload on mental health. On the other hand, recovery from mental ill health was observed in 48.7% after the first 6 months and in 66.1% after 1 yr. Moreover, perceived job stress such as “Too much responsibility at work” had a significant association with recovery. The working conditions of workers were therefore psychologically dynamic. In addition, Cohen et al., in a book on measuring stress reported as follow. Because of the fallibility of memory, the duration of stressors measured in self-report questionnaires or in informants’ reports are not very reliable for stressors or stressors that have been resolved prior to the data collection period. Therefore, when self-report questionnaires are used, an investigator...
should use multiple measurement periods with a short interval between measurements. Concerning about the questionnaire on perceived job stress, needless to say we are afraid that the GHQ as a self-report questionnaire might be biased as to answer on characteristics of the psychological condition, the tendency of thought and behavior, and memory in only a cross-sectional survey. As to the above content, no specific perceived job stress which has a stable relationship to extracted and interpreted mental ill health factors has been found. The purpose of the present study was to investigate the stability of the mental ill health factor structures from three cross-sectional surveys at certain intervals, and to clarify the stable relationship between extracted mental health and job stress factors.

Materials and Methods

The study group consisted of 782 employees of a middle-sized electronics company in Okayama Prefecture, Japan. We conducted 3 cross-sectional surveys of the employees’ job stress and mental health at six-month intervals to examine the stability of the answers. Eligible workers were those who answered all of three cross-sectional surveys satisfactorily. The survey was self-administered and the questionnaire was composed of the 30-item Japanese version of the General Health Questionnaire (GHQ)\(^{12}\) and a 14-item questionnaire about perceived job stress\(^{18}\), which mainly measured psychological work overload with additional questions about the worker’s demographics. The GHQ is a standard screening questionnaire for psychiatric morbidity and was used as the parameters of the worker’s mental health in our study. The original English version of the GHQ was already validated by Goldberg and other researchers\(^{19–21}\). The Japanese version of the 30-item GHQ was validated by Kitamura\(^{22}\). In this study, the GHQ was used as a mental health parameter and treated as a continuous variable.

The response rates of the eligible workers were 69.1\% (n=540). The demographic samples who were answered satisfactorily in the three surveys, are shown in Table 1. The demographic results were not significantly different for sex, age, marital status or departments among the three cross-sectional surveys. In this company, there were various workplace departments as shown in Table 1. The female employees mainly worked in the production department, but males worked in various departments.

In our previous studies\(^{2,8,9}\), the same data sources were used. The GHQ scores were assessed by the Lickert scoring method\(^{12}\) instead of the GHQ method to avoid loss of information and a distorted correlation matrix due to a 0/1 value. The perceived job stress items were assessed by a three point Lickert type rating method\(^{14}\) from the same method as in the GHQ.

The mean total scores of the GHQ were compared in three cross-sectional surveys. Total GHQ scores in the second and third surveys were improved by 0.6 points in the second survey and 0.9 points in the third survey, compared to that of the first survey, as shown in Table 2 but these differences were not significant in a t-test. These results did not represent a retest effect of the GHQ\(^{13}\).

We performed factor analyses to clarify the factor structure of the GHQ scores and checked the stability of their factor structure in three different questionnaires. To check the internal consistency and reliability of the GHQ and the questionnaire on perceived job stress, Cronbach’s alpha coefficients for both of these questionnaires were calculated. Incidentally, in our study the distribution of the GHQ score for each item could be approximated to normal distribution. In addition, we thought that there might be a relationship between perceived job stress and GHQ factor scores. Therefore, the method of extraction was a maximum likelihood estimation with promax rotation (oblique rotation). The eigenvalues for the extracted factors were more than 1.0. The Kaiser-Meyer-
Olkin measure of sampling adequacy\textsuperscript{23}, which is a measure to compare the observed correlation coefficient with the partial correlation coefficient, was used as a reliable measure. A highly reliable value was obtained by factor analysis.

Since a worker’s mental health has various aspects, a multiple regression analysis was performed to determine the interrelationship between the extracted factor score of the GHQ and the Lickert type rating response of the perceived job stress questions which were adjusted for sex, age and departments as potential confounders. The individual GHQ factor scores for the two groups were compared: a positive answer group regarding perceived job stress as “always present” or “sometimes present” and a negative answer group as “absent”. The significance was ascertained by t-tests of these two groups. In the multiple regression analysis, the continuous value of the GHQ factor score was used as the dependent variable and the significant items of perceived job stress in 2-tailed t-tests as the predictors or independent variables. These statistical analyses were carried out with the SPSS-Windows computer program.

**Results**

The Cronbach alpha coefficients from the perceived job stress questionnaires were 0.830 in the first survey, 0.843 in the second, and 0.841 in the third and those of the GHQ were 0.905, 0.912, and 0.918, respectively, so that both the GHQ and the perceived job stress questionnaires were highly reliable.

The Kaiser-Meyer-Olkin value for sampling adequacy in the GHQ were 0.90, 0.91, and 0.92 respectively. The values were sufficient to perform a factor analysis based on the questionnaires.

In the GHQ, according to the maximum likelihood methods, eigenvalues of the first 6 or 7 factors were greater than unity but after promax rotation, the smallest 7th factors had less than 0.500 a factor loading. These factors were therefore difficult to interpret. In this factor analyses, 6 factors could be interpreted. In the three surveys, they accounted for 54.7%, 56.3%, and 59.9% of the total variance, respectively. Table 3 indicates the promax rotated maximum factor loading of the GHQ items in the three surveys. The factors labeled in this study are as follows:

Factor 1: Because this factor included some symptoms of anxiety and depression, we labeled this factor “Anxiety and depression”.

Factor 2: Because this factor included such items as “life entirely hopeless”, “life not worth living”, and “nervous too much”, this factor was interpreted as “Severe depression”.

Factor 3: This factor included the items “able to feel warmth”, and “easy to get on with others”, and was therefore labeled “Lack of interpersonal network or social support”, but in the second survey this factor was extracted as the 4th factor.

Factor 4: There was high loading on items such as “able to concentrate”, “mentally alert and worry”, and “doing things well”. Therefore, this factor was interpreted as “Poor social activity”.

Factor 5: This factor had high loading on items such as “lost much sleep over worry”, and “been having restless, disturbed night”. Therefore, this factor was interpreted as “Insomnia”.

Factor 6: This factor had continuously high loading on such items as “(not) feeling hopeful”, and “been feeling reasonably (un) happy”. We interpreted this as “Lack of positive attitude”.

Means and standard deviations of factor scores in all three surveys are shown in Table 4.

Incidentally, some items in the Japanese version of the 30-item GHQ such as “feeling unhappy and depressed”, and “losing confidence”, which had maximum factor loading in the factor “Anxiety and depression”, showed high factor loading in the factor “Severe depression” as shown in Table 3.

In only the first survey, the 7th factor was extracted with high factor loading in such as items: “couldn’t overcome your difficulties”, “thinking of yourself as a worthless person”, and “life is entirely hopeless” as shown in Table 3, but this factor “Depression” was involved in the factors “Anxiety and depression” and “Severe depression”.

Table 5 shows a person’s correlations of factor scores for each extracted and interpreted factor in different cross-sectional surveys. In the results, these factor scores for different periods were significantly associated with each other, and these results supported the stability of the factor structures in factor analyses.

We also performed factor analyses on a 30-item GHQ by sex. The results were similar for both sexes.

Next multiple regression analyses controlled by sex, age and workplace department were carried out to examine the relationship between the GHQ extracted factor score and the items on perceived job stress, as shown in Table 6. The first factor, which was interpreted as “Anxiety and depression”, had a positive relationship with the items “too much responsibility”, and “cannot keep up with new technology” in all the surveys. The second factor “Severe depression” had a consistently significant relationship with “poor relationship with superiors”, and “cannot keep up with new technology”. The third factor, “Lack of interpersonal network or social support” as a stress reaction, was significantly related to the item “poor relationship with superiors” in all the surveys. The fourth factor “Poor social activity” was significantly associated with the items “too much trouble at work”, and “poor relationship with superiors” in all surveys. The fifth factor “Insomnia” had a significant
<table>
<thead>
<tr>
<th>Table 3. Maximum likelihood method with promax rotation of the GHQ</th>
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</thead>
<tbody>
<tr>
<td><strong>Items with factor loading</strong></td>
</tr>
<tr>
<td><strong>First survey</strong></td>
</tr>
<tr>
<td>F1. Anxiety and depression</td>
</tr>
<tr>
<td>14. Felt constantly under strain?</td>
</tr>
<tr>
<td>15. Felt you couldn’t overcome your difficulties?</td>
</tr>
<tr>
<td>18. Been taking things hard?</td>
</tr>
<tr>
<td>21. Found everything getting on top of you?</td>
</tr>
<tr>
<td>22. Been feeling unhappy and depressed?</td>
</tr>
<tr>
<td>23. Been losing confidence in yourself?</td>
</tr>
<tr>
<td>28. Been feeling nervous and strung-up all the time?</td>
</tr>
<tr>
<td><strong>Percentage accounting for total variance of factor 1</strong></td>
</tr>
<tr>
<td>F2. Severe depression</td>
</tr>
<tr>
<td>22. Been feeling unhappy and depressed?</td>
</tr>
<tr>
<td>23. Been losing confidence in yourself?</td>
</tr>
<tr>
<td>24. Been thinking of yourself as a worthless person?</td>
</tr>
<tr>
<td>25. Felt that life is entirely hopeless?</td>
</tr>
<tr>
<td>29. Felt that life isn’t worth living?</td>
</tr>
<tr>
<td>30. Found at times you couldn’t do anything because your nerves were too bad?</td>
</tr>
<tr>
<td><strong>Percentage accounting for total variance of factor 2</strong></td>
</tr>
<tr>
<td>F3. Lack of interpersonal network or social support</td>
</tr>
<tr>
<td>10. Been able to feel warmth and affection for those near to you?</td>
</tr>
<tr>
<td>11. Been finding it easy to get on with other people?</td>
</tr>
<tr>
<td>12. Felt that you are playing a useful part in things?</td>
</tr>
<tr>
<td><strong>Percentage accounting for total variance of factor 3</strong></td>
</tr>
<tr>
<td>F4. Poor social activity</td>
</tr>
<tr>
<td>1. Been able to concentrate on whatever you’re doing?</td>
</tr>
<tr>
<td>3. Been feeling mentally alert and wide awake?</td>
</tr>
<tr>
<td>4. Been feeling full of energy?</td>
</tr>
<tr>
<td>9. Felt on the whole you were doing things well?</td>
</tr>
<tr>
<td><strong>Percentage accounting for total variance of factor 4</strong></td>
</tr>
<tr>
<td>F5. Insomnia</td>
</tr>
<tr>
<td>2. Lost much sleep over worry?</td>
</tr>
<tr>
<td>5. Been having restless, disturbed nights?</td>
</tr>
<tr>
<td><strong>Percentage accounting for total variance of factor 5</strong></td>
</tr>
<tr>
<td>F6. Loss of positive attitude</td>
</tr>
<tr>
<td>26. Been feeling hopeful about your own future?</td>
</tr>
<tr>
<td>27. Been feeling reasonably happy, all things considered?</td>
</tr>
<tr>
<td><strong>Percentage accounting for total variance of factor 6</strong></td>
</tr>
<tr>
<td>F7. Depression</td>
</tr>
<tr>
<td>15. Felt you couldn’t overcome your difficulties?</td>
</tr>
<tr>
<td>24. Been thinking of yourself as a worthless person?</td>
</tr>
<tr>
<td>25. Felt that life is entirely hopeless?</td>
</tr>
</tbody>
</table>
relationship with “too much trouble at work” in all the surveys, but the sixth factor “Lack of a positive attitude” showed no significant relationship with perceived job stress.

**Discussion**

Karasek reported that job stress could be separated into two factors, job demand and job decision latitude or job control. He explained that a high job demand and a low decision latitude state was most stressful. Our perceived job stress questionnaire was based on psychological work overload. This could be related to Karasek’s job demand.

In our cross-sectional surveys, 6 factors as described before were stably extracted and interpreted. In contrast to our hypothesis, total GHQ scores rating the Lickert method were not significantly changed by the retest effect.

We focused on the factor structure of the GHQ in a worker’s sample and extracted the first factor, “Anxiety and depression”. Huppert et al. reported that the same factor was extracted in their survey of 6317 community residents, including workers. Iwata et al. found the same factor of “Anxiety (General dysphoria)” in the 30 item GHQ survey of 2108 Japanese adult employees. In their study, the “Severe depression” factor was extracted as a separate factor. The results of our study agreed with that observation.

With regard to the “Severe depression” factor, Nadaoka et al. reported that a “Depression” factor was extracted in the same version of GHQ in Japan and supported our results. The “Lack of interpersonal network or social support” factor was involved in the “Social dysfunction” factor in their study, but the factors “Feeling of incompetence, low self-esteem” and “Difficulty in coping, dispirited” described by Huppert et al. could not be extracted in our study. As for the factor “Poor social activity”, this was not extracted and interpreted independently in other Japanese studies. Consequently, further study was required to confirm this factor in Japanese workers. The consistently extracted “Insomnia” factor was supported by Nadaoka’s study. On the other hand, this factor was involved in the “Anxiety” factor in Iwata’s study. The reason could be thought that “Anxiety” and “Insomnia” are closely related psychological symptom.

However, the factor “Loss of a positive attitude” was extracted as in the study by Iwata et al. Iwata et al. suggested that the Japanese tended to complain of “Loss of a positive attitude”, “(not) hopeful” and “(not) happy”, and that this tendency deteriorated the internal consistency of the scale. Therefore, the Japanese responses to two “Loss of a positive attitude” items might be an artifact on the GHQ-30 suggested by Iwata et al. In our third survey, the proportion of 2 or 3 points in the Lickert

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**Table 4.** Means and standard deviations of factor scores in three cross-sectional surveys

<table>
<thead>
<tr>
<th>Factor</th>
<th>First survey</th>
<th>Second survey</th>
<th>Third survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety and depression</td>
<td>-0.52</td>
<td>0.96</td>
<td>0.54</td>
</tr>
<tr>
<td>Severe depression</td>
<td>-0.34</td>
<td>0.93</td>
<td>-0.12</td>
</tr>
<tr>
<td>Lack of interpersonal network and social support</td>
<td>-0.12</td>
<td>0.91</td>
<td>-0.13</td>
</tr>
<tr>
<td>Poor social activity</td>
<td>-0.40</td>
<td>0.90</td>
<td>0.32</td>
</tr>
<tr>
<td>Insomnia</td>
<td>-0.98</td>
<td>1.00</td>
<td>-0.99</td>
</tr>
<tr>
<td>Lack of a positive attitude</td>
<td>0.27</td>
<td>0.84</td>
<td>0.56</td>
</tr>
</tbody>
</table>

M: Mean. SD: Standard deviation.

**Table 5.** Correlations of factor scores for each extracted and interpreted factor

<table>
<thead>
<tr>
<th>Factor</th>
<th>First to second survey</th>
<th>First to third survey</th>
<th>Second to third survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety and depression</td>
<td>0.564**</td>
<td>0.486**</td>
<td>0.544**</td>
</tr>
<tr>
<td>Severe depression</td>
<td>0.590**</td>
<td>0.577**</td>
<td>0.565**</td>
</tr>
<tr>
<td>Lack of interpersonal network and social support</td>
<td>0.432**</td>
<td>0.415**</td>
<td>0.476**</td>
</tr>
<tr>
<td>Poor social activity</td>
<td>0.329**</td>
<td>0.394**</td>
<td>0.470**</td>
</tr>
<tr>
<td>Insomnia</td>
<td>0.426**</td>
<td>0.390**</td>
<td>0.442**</td>
</tr>
<tr>
<td>Lack of a positive attitude</td>
<td>0.488**</td>
<td>0.482**</td>
<td>0.518**</td>
</tr>
</tbody>
</table>

**p<0.01.**
The relationship between the extracted factor score of the GHQ and perceived job stress was examined by multiple regression analysis. The results suggest that the items “too much responsibility”, and “cannot keep up with new technology” have a consistent significant relationship to “Anxiety and depression”. These two items are representative of stress in the workplace, which account for the main psychological symptoms. To prevent the anxious and depressive state, reduction of these stressors might be helpful. According to our previous study\(^9\) for recovery of mental ill health, the item “Too much responsibility” was an important item to recover.

With regard to “Severe depression”, an item in

\begin{table}
\centering
\caption{Multiple regression analyses in the factors of the General Health Questionnaire and items of perceived job stress}
\begin{tabular}{|l|l|l|l|}
\hline
\multicolumn{2}{|c|}{First survey} & \multicolumn{2}{c|}{Second survey} \\
\multicolumn{2}{|c|}{Standardized} & \multicolumn{2}{c|}{Standardized} \\
\multicolumn{2}{|c|}{Beta (P)} & \multicolumn{2}{c|}{Beta (P)} \\
\hline
\textbf{Factor 1} Anxiety and depression (dependent variable) &  &  &  \\
item of perceived job stress &  &  &  \\
5. Too much trouble at work & 0.174 (0.000) & – & 0.247 (0.000) \\
6. Too much responsibility & 0.140 (0.004) & 0.167 (0.001) & 0.171 (0.000) \\
9. Feel pressed for time & – & 0.171 (0.000) & – \\
14. Cannot keep up with new technology & 0.177 (0.000) & 0.189 (0.000) & 0.125 (0.002) \\
\multicolumn{4}{|c|}{Adjusted R Square} \\
\hline
& 0.143 & 0.203 & 0.220 \\
\hline
\textbf{Factor 2} Severe depression (dependent variable) &  &  &  \\
item of perceived job stress &  &  &  \\
1. Too much competition & – & 0.098 (0.024) & – \\
8. Poor relationship with superiors & 0.114 (0.007) & 0.167 (0.000) & 0.241 (0.000) \\
14. Cannot keep up with new technology & – & 0.211 (0.000) & 0.172 (0.000) \\
\multicolumn{4}{|c|}{Adjusted R Square} \\
\hline
& 0.018 & 0.093 & 0.107 \\
\hline
\textbf{Factor 3} Lack of interpersonal network or social support (dependent variable) &  &  &  \\
item of perceived job stress &  &  &  \\
5. Too much trouble at work & 0.181 (0.000) & 0.120 (0.009) & 0.190 (0.000) \\
8. Poor relationship with superiors & 0.125 (0.003) & 0.236 (0.000) & 0.158 (0.000) \\
14. Cannot keep up with new technology & 0.125 (0.005) & – & – \\
\multicolumn{4}{|c|}{Adjusted R Square} \\
\hline
& 0.085 & 0.080 & 0.083 \\
\hline
\textbf{Factor 4} Poor social activity (dependent variable) &  &  &  \\
item of perceived job stress &  &  &  \\
5. Too much trouble at work & 0.233 (0.000) & 0.200 (0.000) & 0.231 (0.000) \\
8. Poor relationship with superiors & 0.104 (0.014) & 0.174 (0.000) & 0.119 (0.005) \\
\multicolumn{4}{|c|}{Adjusted R Square} \\
\hline
& 0.069 & 0.084 & 0.084 \\
\hline
\textbf{Factor 5} Insomnia (dependent variable) &  &  &  \\
item of perceived job stress &  &  &  \\
5. Too much trouble at work & 0.101 (0.016) & 0.137 (0.002) & 0.144 (0.001) \\
\multicolumn{4}{|c|}{Adjusted R Square} \\
\hline
& 0.008 & 0.014 & 0.038 \\
\hline
\end{tabular}
\end{table}

method for these two items was 74.5% and 59.1%, respectively. It follows that the extraction of the factor “Loss of a positive attitude” in this study, might be explained by Iwata’s suggestion, but in Nadaoka’s study\(^28\), the same factor which he interpreted as “Unhappiness” was extracted. In addition, in our study, this factor was stably extracted over three cross-sectional studies. Therefore, although this factor might be an artifact, it could be an independent factor indicating psychological distress in Japanese workers.

Goldberg\(^29\) asserted that there was a common language explaining psychological symptoms beyond the walls of cultures. Although there may be a variety of factors explaining psychological symptoms extracted among different races, cultures, and generations, as for anxiety and depression, our present results supported his hypothesis.
perceived job stress. “Poor relationship with superiors” had a significant stable association with this factor. This result confirmed that social support was important in preventing depression in workers.

This item in perceived job stress could be closely related to “Interpersonal conflict”, one of the job stressors in the National Institute for Occupational Safety and Health (NIOSH) hypothesis. It was related to “Lack of interpersonal network or social support” in all the surveys. It was reported that social support and a social network were important factors in preventing diseases which may lead to death. Moreover, Karasek reported that a low decision latitude and low social support state were stressful, and this environment was related to psychological distress, especially depression. In addition, Landsbergis et al. reported that social support accounted for significant additional variance predictors for anger, anxiety and depression as in expanded Karasek’s model. On the other hand, Bourbonnais et al. reported that social support did not modify the association between job strain and psychological distress. It follows that multiple coefficients of determination were small in the factor in which this item including social support had a significant relationship. Consequently, further study is required to clarify the effect of social support on mental health.

The factor “Poor social activity” was significantly related to the items: “Too much trouble”, and “Poor relationship with superiors”. Because these items of perceived job stress had high odds ratios in relation to mental health in our previous studies these results were consistent.

The factor “Insomnia” had a stable relationship to the item “Too much trouble at work”. This item might be specifically cause sleep disturbance.

The factor “Lack of a positive attitude” did not have a significant relationship with perceived job stress continuously. Generally speaking Japanese workers have a tendency to not express their feelings according to Iwata. This might be one reason for our results.

With regard to the results in Tables 5 and 6, we thought that although factors 2, 3 and 4 might be unstable in the dynamic working conditions, these factor structures were stable throughout our three cross-sectional surveys instead of the measuring bias in self-report questionnaires. These results suggest that the vulnerability of workers to job stressors was stable in dynamic working conditions rather than a fixed effect of job stressors chronically causing psychological distress in the specific workers.

There are the limitations of this study. The extracted factor scores were used as dependent variables in the multiple regression analyses, but we could not guarantee that the variances of these extracted factor scores were dominant. Although we used the GHQ as a measure of mental health, it has not been validated in Japanese workers. Therefore, further studies are required to compensate for these limitations.

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29) Goldberg DP. The use of screening questionnaire by family Doctors. The 7th World Congress of Psychiatry, Vienna July, 1983.