SHORT COMMUNICATIONS

Effects of Marital Status and Position on Personality Traits in Engineers of a Computer Manufacturing Plant

Abstract: To investigate the effects of marital status and position on DSM-III-R personality traits, we administered the self-rating questionnaires of the Structured Clinical Interview for DSM-III-R Personality Disorders to 757 male computer engineers, aged 20 to 49 years, at a computer manufacturing plant. The scores for six of eleven personality traits were significantly higher in single computer engineers than in married ones. Also, among the engineers aged 40 to 49, the scores for six personality traits of section-heads were significantly higher than those among persons in the other positions. These findings suggest that "maladaptive" personality traits, defined by the DSM-III-R, differ with marital status and position in a company.

Key words: Personality traits — DSM-III-R — Marital status — Position — Computer engineers

The Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R) defines personality traits and personality disorders. DSM-III-R personality traits have been reported to differ with age, gender, occupation and school career in nonpatient populations including engineers and office workers of a computer manufacturing plant in our studies. Other demographic factors, e.g., marital status and position in a company, may also mislead the interpretation of DSM-III-R personality traits. To establish appropriate mental health services for workers, it would be essential to confirm the effects of those factors because such personality traits are closely associated with psychological distress such as depression and anxiety. In the present study, the relationships between the personality traits and both marital status and position were investigated in the same workers who were surveyed previously.

The study population consisted of 757 male computer engineers, aged 20 to 49 years, employed in a computer manufacturing factory of an electrical company in the western suburb of Tokyo; 138 (15.4%) of 895 full time computer engineers, who were examined using self-rating questionnaires, were excluded because of imperfect responses. The questionnaire of the Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II Screen) was employed to measure several personality traits, as described in our previous reports.

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Differences in the scores of eleven DSM-III-R personality traits between the single and the married were tested by the analysis of covariance to control for the effect of age. Also, the Scheffe's multiple comparison test was used to determine the significance of differences in the scores for the personality traits among different positions (i.e., department-heads, section-heads, chiefs and support staff) among engineers aged 40 to 49; the sample sizes of department-heads and section-heads among other age-specific engineers were not large enough to analyze. All analyses were performed using the SPSS computer program at the computer center of the Osaka University.

As for marital status, the scores for borderline, self-defeating, schizoid, schizotypal, dependent and avoidant personality traits were significantly higher in the single computer engineers than in the married ones (Table 1). With respect to position in the company, the score for the schizotypal personality trait among section-heads of computer engineers was significantly higher than that among chiefs and support staff (Fig. 1); also, the score for the dependent personality trait among section-heads was significantly higher than that among department-heads and chiefs. The scores for avoidant, obsessive compulsive, passive aggressive and self-defeating personality traits differed significantly between section-heads and department-heads.

The principal finding of this study was that single men showed higher scores

<table>
<thead>
<tr>
<th>Personality traits</th>
<th>Marital status</th>
<th>F value*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single (N = 410)</td>
<td>Married (N = 347)</td>
</tr>
<tr>
<td>Borderline</td>
<td>6.8 ± 4.4</td>
<td>4.5 ± 3.8</td>
</tr>
<tr>
<td>Self-defeating</td>
<td>4.8 ± 3.5</td>
<td>3.6 ± 3.2</td>
</tr>
<tr>
<td>Schizoid</td>
<td>3.3 ± 2.2</td>
<td>3.0 ± 2.1</td>
</tr>
<tr>
<td>Schizotypal</td>
<td>3.6 ± 2.4</td>
<td>2.8 ± 2.2</td>
</tr>
<tr>
<td>Dependent</td>
<td>4.7 ± 2.6</td>
<td>3.7 ± 2.5</td>
</tr>
<tr>
<td>Avoidant</td>
<td>4.7 ± 2.6</td>
<td>3.9 ± 2.5</td>
</tr>
<tr>
<td>Narcissistic</td>
<td>5.4 ± 3.1</td>
<td>4.4 ± 3.2</td>
</tr>
<tr>
<td>Obsessive compulsive</td>
<td>7.5 ± 3.5</td>
<td>6.8 ± 3.5</td>
</tr>
<tr>
<td>Passive aggressive</td>
<td>4.1 ± 2.7</td>
<td>4.0 ± 2.8</td>
</tr>
<tr>
<td>Histrionic</td>
<td>5.4 ± 3.1</td>
<td>4.4 ± 3.1</td>
</tr>
<tr>
<td>Paranoid</td>
<td>3.6 ± 2.7</td>
<td>3.0 ± 2.6</td>
</tr>
</tbody>
</table>

# Analysis of covariance was used to control for the effect of age.

* p < 0.01 and ** p < 0.005.
Fig. 1. Personality traits by position in the company in 144 male computer engineers aged 40–49. The score of each personality trait is expressed as mean ± standard deviation. * indicates a significant difference between two groups of the position at the level of $p < 0.05$ (Scheffe’s multiple comparison test).
for six personality traits than did married men. Zimmerman and Coryell reported that the borderline personality was the least likely to be married\textsuperscript{4}. Also, a significant association between borderline personality disorder and marital status was observed in another study of community residents in Durham, North Carolina\textsuperscript{11}; those with this disorder were much more likely to be single or widowed. Thus, it is suggested that “maladaptive” personality traits, defined by the DSM-III-R\textsuperscript{1}, may differ between the single and the married.

In the present study, section-heads among computer engineers, aged 40–49, tended to have “maladaptive” personality traits more frequently than did workers with other positions. One possible explanation for this finding is that the section-heads (“Kachou”) are in a very stressful position between the administration and the workers including chiefs and support staff. Persons with fewer “maladaptive” personality traits, on the contrary, might have been promoted to the heads of the department quickly (Fig. 1); whereas, the cross-sectional nature of the current study seems to complicate this causal relationship between positions and personality traits. Further research is necessary to clarify when such personality traits develop, change and become fixed.

In summary, the present findings suggest that marital status and position within a company, as well as age, gender, occupation and school career\textsuperscript{2-7}, are important factors to be considered in detecting vulnerable workers to mental insults with use of the SCID-II Screen. In a sense of avoidance of “false positives,” simultaneous measures of clinical/diagnostic interviews for psychiatric disorders or several questionnaires for general/multidimensional psychiatric symptoms, depression and anxiety\textsuperscript{12} may be helpful.

REFERENCES


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