The Influences of Interpersonal Stressors and Interpersonal Stress Coping on Depression among Teachers

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Introduction

According to the latest survey of personnel administration of public school teachers (Ministry of Education, Culture, Sports, Science and Technology, 2018), 7,796 teachers out of a total of 920,760 teachers took leaves of absence due to illness; 5,077 teachers (65.1%) of them developed mental diseases. Now the mental health of teachers results in a significant problem. Many studies have found that teachers experience various stressors such as difficulties of instruction, excessive workload, poor working condition, and/or interpersonal relations (e.g., Takagi & Tanaka, 2003).

Among these stressors, interpersonal stressors have been gathering a lot more attention lately (e.g., Kaigawa, 2009). Interpersonal stressors are generally classified into three types: interpersonal conflict, interpersonal blunders and interpersonal friction (Hashimoto, 2005, 2006). Interpersonal conflict includes explicit conflict, quarreling, or discord. Interpersonal blunders indicate situations where difficulties were caused by one’s own mistake. Interpersonal friction means situations where assertiveness is inhibited to avoid explicit interpersonal troubles with other people. These three interpersonal stressors are positively associated with depression among college students (Hashimoto, 2005).

Coping with interpersonal stressors is called interpersonal stress coping. Such coping has three prominent types: positive relationship-oriented coping, negative relationship-oriented coping, and postponed-solution coping (Kato, 2000). Positive relationship-oriented coping involves efforts to actively improve, maintain, and/or sustain their relationships. Negative relationship-oriented coping includes attempts to actively damage, disrupt, and/or dissolve the relationships. Postponed-solution coping contains efforts to patiently wait for appropriate opportunities such as changes or improvements in the situation. Among college students, positive relationship-oriented coping is unassociated or positively associated with depression; negative relationship-oriented coping is positively related to depression; and postponed-solution coping is negatively correlated with depression (e.g., Kato, 2006).

Stressors among teachers can be roughly classified into two types: busyness and interpersonal relations (Mori, 2007). Research has repeatedly shown that the stressor of interpersonal relations rather than busyness strongly influences teachers’ mental health (e.g., Kaigawa, 2009). However, previous studies often used different types of stressor scales for teachers and it came to be difficult to validly compare their results; moreover, it was impossible to contrast the results of teachers with those of workers in other occupations. Those problems could be solved by using Hashimoto’s (2005, 2006) valid and reliable scale of interpersonal stressor, which can measure a wide variety of daily interpersonal stressors in various relationships.

Stress coping among teachers has been examined by means of not only the scales developed for school teachers (e.g., Matsuo & Shimizu, 2008) but also general coping scales such as the Job Stress Scale (JSS; Kosugi, 2000) and the Tri-axial Coping Scale (TAC-24; Kamimura, Ebihara, Sato, Togasaki, & Sakano, 1995). These stress coping scales, regardless of whether they were scales for teachers or not, assessed comprehensive coping with various stressors; therefore, they did not necessarily rate interpersonal stress coping accurately. For accurate evaluations, it is preferable to use the valid and reliable scale developed by Kato (2000), which can assess different types of coping with interpersonal stressors.

This study used the measures of interpersonal stressors (interpersonal conflict, interpersonal blunders, and interpersonal friction) and interpersonal stress coping (positive relationship-oriented, negative relationship-oriented, and postponed-solution coping), and examined their influences on depression among teachers.

1) This study was presented at the 28th Conference of the European Health Psychology Society.
2) Hirokazu Taniguchi is now at Shimonoseki City University.
3) Koji Tanaka was at Okayama University when this study was conducted.
Methods

Participants and Procedures
Participants consisted of 424 teachers (21 preschool, 179 elementary school, 109 middle school, 93 high school, and 22 special school teachers). Forty-four percent of them were male. The average age was 44.03 years, with a range from 33 to 56 years (SD = 7.24). The survey was administered when they took the teaching certificate renewal courses between June 2012 and August 2013. They were informed orally about the purpose of this study, their rights to decline participation, and their confidentiality.

Measures

Interpersonal stressors. The Scale of Interpersonal Stressor (SIS; Hashimoto, 2005, 2006) was used to measure the frequency of interpersonal stressors experienced in the past month. The SIS consists of three subscales, which have six items each: interpersonal conflict, interpersonal blunders and interpersonal friction. The answers were rated on a 4-point scale from not at all (1) to o/ten (4). The average item scores of each subscale were used in the following analyses. The alpha reliability was .79 for interpersonal conflict, .72 for interpersonal blunders, and .80 for interpersonal friction.

Interpersonal stress coping. The Interpersonal Stress-Coping Inventory (ISI; Kato, 2000) was used to assess coping with interpersonal stressors. The ISI consists of three subscales: positive relationship-oriented coping (16 items), negative relationship-oriented coping (10 items), and postponed-solution coping (8 items). The participants were asked to rate how they usually feel and act in the stressful situations caused by interpersonal relations on a 4-point scale ranging from not true (1) to very true (4). The average scores of each subscale were used in the analyses. The alpha reliability was .83 for positive relationship-oriented coping, .79 for negative relationship-oriented coping, and .82 for postponed-solution coping.

Depression. The Japanese version of the Center for Epidemiologic Studies Depression Scale (Shima, Shikano, Kitamura, & Asai, 1985), a 20-item self-rating scale, was used to measure depressive symptoms. The participants rated their mental and physical conditions in the past week on a 4-point scale ranging from not true (1) to very true (4). The total item score was used in the following analyses. The alpha reliability was .89.

Results
To examine the effects of interpersonal stressors and interpersonal stress coping on depression, hierarchical multiple regression analysis was conducted on depression as a dependent variable. In the analysis, gender (male = 1, female = 2), age, and school types (preschool, elementary, middle, high, and special school) were entered as control variables in Step 1. School types were dummy-coded into

| Table 1 | Hierarchical multiple regression analysis predicting depression from interpersonal stressors and interpersonal stress coping |
|---|---|---|---|
| Predictors | △R² | B | β |
| 1st step: Control variables | .01 | | |
| Gender | .27 | .02 | [−.98, 1.51] |
| Age | .10 | .11* | [.02, .19] |
| School types (referent: elementary school) | | | |
| Preschool | −.96 | −.03 | [−3.83, 1.91] |
| Middle school | .56 | .04 | [−.88, 2.00] |
| High school | −.08 | −.01 | [−1.66, 1.50] |
| Special school | −1.43 | −.05 | [−4.11, 1.25] |
| 2nd step: Independent variables | .24** | | |
| Interpersonal stressors | | | |
| Interpersonal conflict | 2.72 | .20** | [1.27, 4.16] |
| Interpersonal blunders | 2.47 | .18** | [.96, 3.97] |
| Interpersonal friction | 1.39 | .12* | [.17, 2.61] |
| Interpersonal stress coping | | | |
| Positive relationship-oriented coping | −1.16 | −.07 | [−2.60, .28] |
| Negative relationship-oriented coping | 2.26 | .16** | [.88, 3.64] |
| Postponed-solution coping | −1.66 | −.14** | [−2.73, −.59] |
| Total R² | .25** | | |

* p < .05, ** p < .01.
four variables: preschool, middle, high, and special school, with elementary school as the reference group. Then, three interpersonal stressors and three interpersonal stress coping strategies were entered as independent variables in Step 2. The result of this analysis is shown in Table 1. Interpersonal conflict, interpersonal blunders and interpersonal friction had a significant and positive influence on depression, $\beta = .20$, $p < .01$; $\beta = .18$, $p < .01$; $\beta = .12$, $p < .05$; respectively. Negative relationship-oriented coping also had a significant and positive influence on depression, $\beta = .16$, $p < .01$. In contrast, postponed-solution coping had a significant and negative effect on depression, $\beta = -.14$, $p < .01$.

**Discussion**

All the three types of interpersonal stressors and negative relationship-oriented coping increased depression; postponed-solution coping decreased depression. These results indicate that only postponed-solution coping can reduce depression, which is consistent with the results of previous studies of Japanese full-time workers (Kato, 2015a), Japanese college students (Kato, 2015b), and the general population samples of the United States, Australia, and China (Kato, 2014). According to the results of this study, in order to reduce teachers’ stress responses, it seems effective to promote the use of postponed-solution coping in the stressful interpersonal situations. In fact, many studies of students have shown that their stress responses can be reduced through intervention programs designed for encouraging them to use postponed-solution coping (Kato, 2005; Taniguchi, 2012). Future research needs to examine whether such intervention programs is also effective for teachers.

A limitation of this study is that the cross-sectional design hinders us from rigorously identifying the causal relations of interpersonal stressors and interpersonal stress coping to depression. Future research needs to examine whether interpersonal stressors and interpersonal stress coping predict depression by using longitudinal designs.

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This study examined the influence of interpersonal stressors, and interpersonal stress coping methods, on depression among teachers. Interpersonal stressors include 1) interpersonal conflict; 2) interpersonal blunders; and 3) interpersonal friction. Interpersonal stress coping methods are 1) positive-relationship oriented; 2) negative-relationship oriented; or 3) postponed-solution oriented. Participants were 424 teachers from preschools, elementary/middle/high schools, and special needs schools. All three types of interpersonal stressors, and the negative-relationship oriented coping method, had significant and positive influences on depression. In contrast, the postponed-solution coping method had a significant and negative effect on depression.

Key words: interpersonal stressors, interpersonal stress coping, depression, teachers