Multifactor leadership styles and new exposure to workplace bullying: a six-month prospective study

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Abstract: This study investigated the prospective association between supervisor leadership styles and workplace bullying. Altogether 404 civil servants from a local government in Japan completed baseline and follow-up surveys. The leadership variables and exposure to bullying were measured by Multifactor Leadership Questionnaire and Negative Acts Questionnaire-Revised, respectively. The prevalence of workplace bullying was 14.8% at baseline and 15.1% at follow-up. Among respondents who did not experience bullying at baseline (n=216), those who worked under the supervisors as higher in passive laissez-faire leadership had a 4.3 times higher risk of new exposure to bullying. On the other hand, respondents whose supervisors with highly considerate of the individual had a 70% lower risk of new exposure to bullying. In the entire sample (n=317), passive laissez-faire leadership was significantly and positively associated, while charisma/inspiration, individual consideration, and contingent reward were negatively associated both after adjusting for demographic and occupational characteristics at baseline, life events during follow-up, and exposure to workplace bullying at baseline. Results indicated that passive laissez-faire and low individual consideration leadership style at baseline were strong predictors of new exposure to bullying and high individual consideration leadership of supervisors/managers could be a preventive factor against bullying.

Key words: Aggression, Bullying at work, Cohort, Harassment, Longitudinal study, Management styles, Psychosocial work factor, Prevalence

Introduction

Workplace bullying has been recognized as a critical issue in the work environment. The meta-analysis1) reported the weighted prevalence rate of bullying as 14.8% when using behavioral experience method such as Leymann criteria2), which is defined victims as those experiencing at least one negative act per week within the previous six months. In Japan, the prevalence of workplace bullying was reported at 9.0–15.4%3–5) when using same definition, and social concern about workplace bullying has continued to increase in this decade. Various cross-sectional studies have shown that bullying at work is positively associated with mental health problems such as depressive symptoms6) or post-traumatic stress disorder7). Longitudinal studies have also found that workplace bullying influences various health outcomes such as psychological distress8), depression9,10), cardiovascular disease9), and sick leave11).

Studies have shown that managers and supervisors are the most frequent perpetrators from the viewpoint of targets, though bullying is reported at all organizational levels12). An early study by Leymann2) analyzed approxi-
approximately 800 cases of bullying and found consistent patterns of poorly organized work conditions and “helpless” or “uninterested” leadership behavior in all cases; this study concluded that organizational factors, including the quality of leadership, were a major cause of bullying at work. This result shows that the behaviors of supervisors may greatly influence employees’ exposure to bullying or the perception of being bullied.

Research on supervisor leadership styles and workplace bullying has focused on the laissez-faire or passive/avoidant leadership style as a critical risk factor\[13–17\]. For example, the results of a cross-sectional study using data of a representative large-scale Norwegian workforce showed that laissez-faire leadership is one of the strongest predictors of bullying\[14\]. Laissez-faire leadership is classified as part of a broader concept of passive/avoidant leadership\[8\] in which supervisors/managers are physically on the job but fail to carry out their duties—in other words, “the absence of leadership.” A supervisor who practices laissez-faire leadership may avoid making decisions or fail to give feedback to employees. This leadership style has been found to have an influence on bullying at work, both directly and indirectly\[19\]. A lack of adequate leadership can cause frustration and stress within a workgroup, resulting in interpersonal tensions and escalated levels of conflict between workers\[20\]. It has also been reported that laissez-faire leadership is negatively related to group-level safety environment\[21\]. This is one of the indirect influences of passive/avoidant leadership. Additionally, if managers ignore and fail to recognize and intervene in workplace bullying, it can convey the message that bullying in the workplace is acceptable\[6\]. Skogstad et al.\[10\] identified the mechanisms linking laissez-faire leadership and bullying, and reported that experiencing laissez-faire leadership by one’s immediate supervisor was associated with high levels of role conflict and role ambiguity, and with increased levels of conflict and co-workers. In their path analysis, these three work stressors mediated the association between laissez-faire leadership and bullying at work, and showed a direct effect of laissez-faire leadership on workplace bullying. Moreover, workers under laissez-faire leadership may feel the absence of adequate leadership as a rejection and expulsion\[10\]. For example, even if their behaviors are unintentional, supervisors with laissez-faire leadership are less likely to give information or feedback to their subordinates, causing them to feel excluded or even feel bullied. To summarize, it has been suggested that laissez-faire leadership is a risk factor for workplace bullying, partly directly and partly by creating a stressful work environment.

However, studies that have indicated an association between laissez-faire leadership and workplace bullying have all been cross-sectional\[13–17\]. Thus, the possibility exists that subordinates who have experienced workplace bullying are more likely to rate their supervisor’s leadership negatively; this phenomenon is called the negative halo effect\[22\]. This effect could result in an overestimation of the association of negative leadership with exposure to bullying. To clarify the time-order of these two variables, a longitudinal study is needed\[23\]. Furthermore, most previous longitudinal studies have employed a single question to measure workplace bullying, asking respondents to indicate whether they have experienced bullying at work. This type of measurement, however, has been known to result in underestimation of the prevalence of bullying because people tend to hesitate to label themselves as victims even when they have experienced bullying first hand\[24\], especially in Japanese society\[5\]. Thus it is necessary to use a standardized scale to measure workplace bullying without using the word bullying or harassment to investigate the association between leadership and bullying.

Although limited studies have shown that certain other leadership styles could be preventive factors against bullying\[17, 25–27\], there is accumulated knowledge on a wide range of “positive” leadership styles such as transformational leadership and transactional leadership\[28, 29\]. Transformational leadership consists of charisma, intellectual stimulation, and individual consideration and transactional leadership consists of contingent reward and active management-by-exception\[18\]. Both transformational and transactional leadership have been shown to have positive relationships with subordinates’ job satisfaction and organizational effectiveness\[30\]. In addition, two meta-analyses found that, as compared with transactional leadership, transformational leadership had a stronger positive effect on satisfaction and effectiveness of leadership which was assessed by followers\[31, 32\]. It has also shown that transformational leadership is positively associated with cohesive organizational culture and employee optimism and negatively associated with burnout and work alienation, including feelings such as powerlessness, meaninglessness, and self-estrangement\[33–35\]. On the basis of these studies, it appears that the prevalence of workplace bullying could be reduced if leaders and supervisors pursued transformational leadership practices.

For example, Cemaloglu\[26\] found a negative relationship between transformational leadership among principals and workplace bullying of teachers in primary schools in Turkey. Ertureten et al.\[27\] confirmed Cemaloglu’s result.
among 251 white-collar employees in Turkey. Moreover, the recent research of Nielsen \(^{17}\) also found transformational leadership were negatively associated with exposure to bullying among seafarers in Norway. Another cross-sectional study reported that higher levels of inspiration and communication of vision by leaders, both of which are elements of transformational leadership, were negatively associated with bullying by team members \(^{25}\).

On the other hand, the findings on the relationship between transactional leadership and workplace bullying are conflicting. Ertureten et al. \(^{27}\) found a significant negative relationship between transactional leadership and workplace bullying among white-collar employees, while Cemaloglu \(^{26}\) did not find a significant association among teachers. Relationships of transformational and transactional leaderships with workplace bullying should be studied more extensively and longitudinally to understand the effect of various leadership styles on workplace bullying.

This study therefore aimed to investigate the prospective associations between a wider range of leadership styles among immediate supervisors at baseline and new exposure to workplace bullying among followers at a six-month follow-up, using data collected from Japanese civil servants employed by a local government. Transformational (charisma, intellectual stimulation, and individual consideration), transactional (contingent reward and active management-by-exception), and passive laissez-faire leadership were measured at baseline, and exposure to workplace bullying was measured at baseline and follow-up.

**Methods**

**Participants**

A prospective study of civil servants in a city located in the east coast region of Japan was conducted from September 2011 to March 2012. The data were collected using a self-administered questionnaire, which included scales on supervisor leadership styles, workplace bullying, and demographic characteristics. At baseline, all civil servants in the city (N=2,069) were invited to participate in this study. The questionnaires, along with a letter describing the study’s aims and procedures, were distributed through labor unions. Participants were assured that their participation was voluntary and that the information they provided was confidential. A total of 991 questionnaires were returned in sealed envelopes, yielding a response rate of 47.9%. Altogether 404 participants also returned follow-up questionnaires in sealed envelopes, yielding a follow-up rate of 40.8%. After 87 workers who had at least one missing response for a variable relevant to this study were excluded, responses collected from 317 workers from 45 sections were analyzed. This study procedure has been approved by the Ethics Committees of the Graduate School of Medicine at the University of Tokyo (No. 2772-(2)).

**Measurements**

**Supervisor leadership styles**

All supervisor leadership styles were measured using the Japanese version of the Multifactor Leadership Questionnaire (MLQ) \(^{18, 28}\). The MLQ comprises 36 items assessing six leadership style factors/subscales: charismatic/inspirational, intellectual stimulation, individual consideration, contingent reward, active management-by-exception, and passive laissez-faire leadership. These subscales and their definitions according to Avolio & Bass \(^{18}\) are provided below.

Charismatic/inspirational leadership, which was measured by 12 items, is defined as leadership that “provides followers with a clear sense of purpose that is energizing, and acts as a role model for ethical conduct, which builds identification with a leader and his/her articulated vision.” Intellectual stimulation leadership, measured by four items, is defined as leadership that “gets followers to question the tried and true ways of solving problems; encourages them to improve upon the methods they use.” Individual consideration leadership, measured by four items, is defined as leadership that “focuses on understanding the needs of each follower and works continuously to get them to develop to their full potential.” Contingent reward leadership, measured by four items, is defined as leadership that “clarifies what is expected from followers and what they will receive if they meet expected levels of performance.” Active management-by-exception leadership, measured by four items, is defined as leadership that “focuses on monitoring task execution for any problems that might arise and correcting those problems to maintain current performance levels.” Passive laissez-faire leadership, measured by eight items, is defined as leadership that “tends to react only after problems have become serious to take corrective action and may avoid making any decisions at all.” Responses were measured on a five-point scale with 0 = “not at all,” 1 = “once in a while,” 2 = “sometimes,” 3 = “fairly often,” and 4 = “frequently, if not always.”

The English version of the MLQ was translated by Oota into Japanese and modified, using plain Japanese language expressions, by a group of eight experts in the field of nursing management research and an English teacher in the university. Then, this translated version was tested...
with a group of nine nurses who worked at hospital to receive their feedback, and revised accordingly. The internal reliability and construct validity of the Japanese version of MLQ were sufficient\(^4\). In this sample, Cronbach’s alpha coefficients at baseline were 0.93 for charismatic/inspirational, 0.87 for intellectual stimulation, 0.87 for individual consideration, 0.87 for contingent reward, 0.82 for active management-by-exception, and 0.87 for passive laissez-faire. The total score for each factor was calculated by averaging the scores for the items related to that factor. Since the number of respondents who answered “fairly often” or “frequently, if not always” was small, the participants were divided into tertiles (high, moderate, and low) in terms of their scores on leadership styles at baseline.

Workplace bullying

Workplace bullying was measured using the Japanese version of the Negative Acts Questionnaire-Revised (NAQ-R)\(^3,36-38\) (Cronbach’s alpha = 0.95 at baseline). The NAQ-R comprises 22 items measuring the frequency with which respondents have been subjected to various negative acts during the previous six months, which when occurring on a frequent basis might be considered as acts of bullying\(^39\). Examples of such negative acts are “someone withholding information that affects your performance” and “spreading gossip and rumors about you.” All NAQ-R items are described without reference to the words “bullying” and “harassment.” This allows the participants to respond to each item without having to label and identify the negative acts as bullying. Response categories included “never,” “now and then,” “monthly,” “weekly,” and “daily” (measured on a scale of 1 to 5). In the present study, a sum-scale of the NAQ-R and the presence or absence of exposure to bullying was used to analyze the relationships between supervisor leadership styles and followers’ exposure to bullying behaviors. Exposure to bullying was defined as experiencing at least one negative act on a weekly or daily basis for the previous six months, according to the criteria put forward by Leymann\(^2\).

Demographic and occupational variables

Demographic and occupational variables were assessed using a self-administered questionnaire. The demographic variables included gender, age, education, marital status, and chronic condition. Occupational variables included occupation, employment contract, and shift work at baseline. Stressful life events in the previous six months were defined as experiencing at least one stressful life event related to work, family, or personal matters.

Statistical analysis

We first examined the prevalence of workplace bullying at baseline and follow-up as well as averages and standard deviations (SD) or frequencies of the other study variables. Prior to the main analyses, Spearman’s correlation coefficients were calculated for each of the six factors of supervisor leadership styles, for the total scores on the NAQ-R at baseline and follow-up, and for exposure to bullying at baseline and follow-up to preliminarily examine the association between leadership styles and workplace bullying.

Using the low-scoring group of each leadership style as a reference, a series of multiple logistic regression analyses was conducted using all sample (n=317) and the subsample that excluded those who experienced bullying at baseline (n=270) to estimate the odds ratios (ORs) and 95% confidence intervals (CIs) of new exposure to workplace bullying at follow-up for each group. The analyses were adjusted for demographic and occupational variables (gender, age, education, marital status, chronic condition, occupation, employment contract, and shift work at baseline), and stressful life events during the previous six months (Model 1). Subsequently, the analyses were also adjusted for exposure to workplace bullying at baseline (Model 2). In the final model (Model 3), in order to check which leadership styles had the most impact on new exposure to workplace bullying, all variables including six leadership styles were simultaneously entered. In a series of analyses, a trend test was conducted to examine the dose-response relationship of each of the categorized leadership styles at baseline with workplace bullying at follow-up.

Additionally, to check the robustness for the above analyses and to take account of nested data structure, which indicates employees (Level 1, the individual level) nested within sections (Level 2, the group level), we also conducted a multilevel analysis to investigate the association between leadership scores at group level and workplace bullying at individual level. Group represents department, section, or workgroup and the number of the groups were 45 (range 1–70 employees per section) in this study. The p value for statistical significance was set at 0.05 (two-tailed). All analyses were conducted using SPSS 21.0 for Windows.

Results

Characteristics of the participants

Detailed characteristics of follow-up participants and those lost to follow-up are shown in Table 1. Over 70% of
the follow-up participants were male, and their mean age was 39.8 yr. Approximately half of the participants had graduated from university or graduate school. Compared with follow-up participants (n=317), those who either dropped out during follow-up (n=587) or had at least one missing response (n=87) were significantly older, more likely to be currently married, and tended to be administrators/clerks, technicians, field workers, managers, and

| Variable                              | Follow-up (n=317) | Lost to follow-up (n=674) | p     |
|---------------------------------------|------------------|--------------------------|-------|
| Gender                                |                  |                          | 0.543 |
| Male                                  | 233 (73.5)       | 476 (71.6)               |       |
| Female                                | 4 (26.5)         | 189 (28.4)               |       |
| Age (yr)                              | 39.8 (11.2)      | 42.6 (11.6)              | <0.01 |
| Educational status                    |                  |                          | 0.323 |
| Under high school graduate            | 99 (31.2)        | 217 (34.6)               |       |
| Junior college/technical school graduate | 69 (21.8)     | 148 (23.6)               |       |
| University/graduate school graduate   | 149 (47.0)       | 263 (41.9)               |       |
| Marital status                        |                  |                          | 0.036 |
| Currently married                     | 219 (69.1)       | 494 (75.7)               |       |
| Never married/divorced/widowed        | 98 (30.9)        | 159 (24.3)               |       |
| Having chronic disease                |                  |                          | 0.228 |
| Yes                                   | 55 (17.4)        | 135 (20.8)               |       |
| No                                    | 262 (82.6)       | 513 (79.2)               |       |
| Occupational status                   |                  |                          | <0.01 |
| Administrator/clerk                   | 118 (37.2)       | 263 (40.2)               |       |
| Technician                            | 26 (8.2)         | 109 (16.6)               |       |
| Field worker‡                         | 31 (9.8)         | 99 (15.1)                |       |
| Medical/welfare worker§               | 16 (5.0)         | 36 (5.5)                 |       |
| Fire fighters                         | 117 (36.9)       | 136 (20.8)               |       |
| Others                                | 9 (2.8)          | 12 (1.8)                 |       |
| Employment contract                   |                  |                          | 0.023 |
| Manager                               | 16 (5.0)         | 63 (9.8)                 |       |
| Middle manager                        | 41 (12.9)        | 73 (11.4)                |       |
| General employee                      | 258 (81.4)       | 492 (76.8)               |       |
| Others                                | 2 (0.6)          | 13 (2.0)                 |       |
| Work shift                            |                  |                          | <0.01 |
| Daytime                               | 186 (58.7)       | 502 (75.3)               |       |
| Rotating shift                        | 131 (41.3)       | 165 (24.7)               |       |
| Supervisor leadership style (MLQ) (1.00–4.00)¶ | 1.71 (0.94) | 1.68 (0.91) | 0.606 |
| Charisma/inspirational                | 1.84 (1.00)      | 1.87 (0.97)              | 0.700 |
| Intellectual stimulation              | 1.70 (1.00)      | 1.66 (0.99)              | 0.606 |
| Individual consideration              | 1.67 (0.98)      | 1.62 (0.97)              | 0.448 |
| Contingent reward                     | 1.99 (0.99)      | 1.96 (0.95)              | 0.659 |
| Active management-by-exception        | 1.11 (1.00)      | 1.04 (0.92)              | 0.307 |
| Passive laissez-faire                 |                  |                          |       |
| Workplace bullying (NAQ-R) (22–110)   | 27.6 (10.3)      | 27.4 (10.3)              | 0.755 |
| Exposure to bullying at baseline      | 47 (14.8)        | 99 (15.5)                |       |
| Exposure to bullying at follow-up     | 48 (15.1)        | -                        |       |

1Lost to follow-up: drop out (n=587), missing value (n=87). 2Field worker includes sanitation worker, school food service worker, school janitor, telephone exchange operator, etc. 3Medical/welfare worker includes social worker and public health nurse, etc. 4MLQ: Multifactor Leadership Questionnaire; NAQ-R: Negative Acts Questionnaire-Revised. 5Experiencing at least one negative act on a weekly basis during previous six months.
daytime workers. More than half of the respondents had experienced some stressful life event during follow-up.

Prevalence of workplace bullying

The prevalence of bullying at work was 14.8% (n=47) at baseline and 15.1% (n=48) at follow-up in the present sample. Almost half (n=23) of the victims who had experienced bullying at baseline also experienced workplace bullying at follow-up. Of the 270 workers who had not experienced workplace bullying at baseline, 25 (9%) were newly exposed to workplace bullying at follow-up.

Correlations among variables

Charismatic/inspirational leadership, intellectual stimulation leadership, individual consideration leadership, and contingent reward leadership correlated negatively and significantly with the follow-up NAQ-R score, after adjustment for demographic and occupational characteristics ($p < 0.05$). Passive laissez-faire leadership at baseline correlated positively and significantly associated with the baseline and follow-up NAQ-R scores, and with exposure to workplace bullying at baseline and follow-up, after adjustment for demographic and occupational characteristics ($p < 0.01$) (Table 2, 3).

Leadership styles and workplace bullying in the entire sample

Compared with the low-scoring group, the high-scoring charismatic/inspirational leadership group (OR 0.24 [95% CI: 0.09–0.61], $p$ for trend = 0.003), the high-scoring intellectual stimulation leadership group (OR 0.31 [95% CI: 0.13–0.75]; $p$ for trend = 0.007), the high-scoring individual consideration leadership group (OR 0.23 [95% CI: 0.09–0.57], $p$ for trend = 0.001), and the high-

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**Table 2.** Spearman’s correlation coefficients between the variables at individual level (n = 317)

|       | 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          | 9          |
|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1     |            |            |            |            |            |            |            |            |            |
| 2     |            |            |            |            |            |            |            |            |            |
| 3     |            |            |            |            |            |            |            |            |            |
| 4     |            |            |            |            |            |            |            |            |            |
| 5     |            |            |            |            |            |            |            |            |            |
| 6     |            |            |            |            |            |            |            |            |            |
| 7     |            |            |            |            |            |            |            |            |            |
| 8     |            |            |            |            |            |            |            |            |            |
| 9     |            |            |            |            |            |            |            |            |            |
| 10    |            |            |            |            |            |            |            |            |            |

**Table 3.** Spearman’s correlation coefficients between the variables (n=317)

|       | 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          | 9          |
|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1     |            |            |            |            |            |            |            |            |            |
| 2     |            |            |            |            |            |            |            |            |            |
| 3     |            |            |            |            |            |            |            |            |            |
| 4     |            |            |            |            |            |            |            |            |            |
| 5     |            |            |            |            |            |            |            |            |            |
| 6     |            |            |            |            |            |            |            |            |            |
| 7     |            |            |            |            |            |            |            |            |            |
| 8     |            |            |            |            |            |            |            |            |            |
| 9     |            |            |            |            |            |            |            |            |            |
| 10    |            |            |            |            |            |            |            |            |            |

**$p < 0.01$, * $p < 0.05$. **NAQ-R: Negative Acts Questionnaire-Revised. †Experiencing at least one negative act on a weekly basis during previous six months; no-exposure = 0, exposure = 1.
scoring contingent reward leadership group (OR 0.21 [95% CI: 0.08–0.53], p for trend = 0.001) were significantly less likely to be associated with exposure to bullying at follow-up after adjusting for demographic characteristics, occupational characteristics, and life events during follow-up (Model 1 in Table 4). Compared with the low-scoring group, the high-scoring passive laissez-faire leadership group (OR 3.40 [95% CI: 1.42–8.17], p for trend = 0.007) was significantly more likely to be associated with exposure to bullying at follow-up.

After additionally adjusting for exposure to workplace bullying at baseline (Model 2), the results showed little change. Compared to the low-scoring group, the high-scoring charismatic/inspirational leadership group (OR 0.36 [95% CI: 0.13–0.96], p for trend = 0.037), the high-scoring individual consideration leadership group (OR 0.32 [95% CI: 0.12–0.82], p for trend = 0.013), and the high-scoring contingent reward leadership group (OR 0.27 [95% CI: 0.10–0.71], p for trend = 0.007) were significantly more strongly negatively associated with exposure to bullying at follow-up, while the high-scoring passive laissez-faire leadership group (OR 2.82 [95% CI: 1.11–7.19], p for
trend = 0.031) was significantly more strongly positively associated with workplace bullying at follow-up. The low-scoring intellectual stimulation leadership group was less likely to be associated with workplace bullying at follow-up compared with the high-scoring group, while \( p \) value for trend was marginally significant (OR 0.41 [95% CI: 0.16–0.91], \( p \) for trend = 0.053). After all variables were simultaneously entered in the model, all significant associations between leadership styles and workplace bullying disappeared (Model 3 in Table 4), although the degree of the associations were similar to ORs in Models 1 and 2. The association of active management-by-exception leadership with workplace bullying at follow-up was not significant in any model (\( p > 0.05 \)).

**Leadership styles and new cases of workplace bullying**

Among respondents who did not experience workplace bullying at baseline, the high score for individual consideration leadership (OR 0.30 [95% CI: 0.10–0.91], \( p \) for trend = 0.033) was more likely to be associated negatively

### Table 5. Individual-level association between supervisor leadership styles at baseline and exposure to workplace bullying at six-month follow-up among Japanese civil servants who had not experienced bullying at baseline (n=270): multiple logistic regression analysis†

|                  | n  | No. of case | %  | Model 1 (95%CI)       | Model 3 (95%CI)       |
|------------------|----|-------------|----|-----------------------|-----------------------|
| **Transformational leadership** |    |             |    |                       |                       |
| Charisma/inspirational            |    |             |    |                       |                       |
| Low (0.00–1.25) | 84 | 6           | 7.1| 1.00                  | 1.00                  |
| Moderate (1.26–2.08) | 85 | 13          | 15.3| 1.46 (0.47 to 4.53) | 3.24 (0.59 to 17.7) |
| High (2.09–4.00) | 101| 6           | 5.9| 0.42 (0.11 to 1.58) | 0.86 (0.08 to 8.88)  |
| Test for trend |    |             |    | \( p = 0.129 \)       | \( p = 0.670 \)       |
| Intellectual stimulation |    |             |    |                       |                       |
| Low (0.00–1.25) | 108| 11          | 10.2| 1.00                  | 1.00                  |
| Moderate (1.26–2.25) | 76 | 5           | 6.6| 0.39 (0.12 to 1.32) | 0.60 (0.13 to 2.67) |
| High (2.26–4.00) | 86 | 9           | 10.5| 0.56 (0.19 to 1.69) | 2.32 (0.37 to 14.7)  |
| Test for trend |    |             |    | \( p = 0.314 \)       | \( p = 0.434 \)       |
| Individual consideration |    |             |    |                       |                       |
| Low (0.00–1.25) | 97 | 12          | 12.4| 1.00                  | 1.00                  |
| Moderate (1.26–2.00) | 76 | 6           | 7.9| 0.31 (0.10 to 0.96) | 0.28 (0.07 to 1.11) |
| High (2.01–4.00) | 97 | 7           | 7.2| 0.30 (0.10 to 0.91) | 0.43 (0.05 to 3.99)  |
| Test for trend |    |             |    | \( p = 0.033 \)       | \( p = 0.258 \)       |
| **Transactional leadership** |    |             |    |                       |                       |
| Contingent reward |    |             |    |                       |                       |
| Low (0.00–1.25) | 104| 11          | 10.6| 1.00                  | 1.00                  |
| Moderate (1.26–2.00) | 75 | 8           | 10.7| 0.64 (0.22 to 1.87) | 0.51 (0.12 to 2.18) |
| High (2.01–4.00) | 91 | 6           | 6.6| 0.36 (0.11 to 1.15) | 0.30 (0.03 to 3.34)  |
| Test for trend |    |             |    | \( p = 0.083 \)       | \( p = 0.537 \)       |
| Active management-by-exception |    |             |    |                       |                       |
| Low (0.00–1.50) | 93 | 8           | 8.6| 1.00                  | 1.00                  |
| Moderate (1.51–2.50) | 102| 9           | 8.8| 0.87 (0.28 to 2.69) | 2.52 (0.49 to 12.9) |
| High (2.51–4.00) | 75 | 8           | 10.7| 0.86 (0.26 to 2.88) | 3.23 (0.49 to 21.2)  |
| Test for trend |    |             |    | \( p = 0.816 \)       | \( p = 0.203 \)       |
| Passive laissez-faire leadership |    |             |    |                       |                       |
| Low (0.00–0.50) | 118| 7           | 5.9| 1.00                  | 1.00                  |
| Moderate (0.51–1.25) | 73 | 8           | 11.1| 3.59 (1.06 to 12.2) | 3.07 (0.75 to 12.6) |
| High (1.26–4.00) | 79 | 10          | 12.7| 4.28 (1.29 to 14.2) | 3.71 (0.89 to 15.4)  |
| Test for trend |    |             |    | \( p = 0.018 \)       | \( p = 0.040 \)       |

†Exposure to workplace bullying was defined as experiencing at least one negative act on a weekly basis during previous six months. ‡Model 1: Adjusted for gender, age, education, marital status, chronic condition, occupation, employment contract, shift work at baseline and life events in the previous six months at follow-up. §Model 3: All variables including six leadership styles were simultaneously entered in the model.
with new exposure to workplace bullying at follow-up, while high score for passive laissez-faire leadership (OR 4.28 [95% CI: 1.29−14.2], p for trend = 0.018) was more likely to be associated positively with workplace bullying at follow-up, compared with the low-scoring group, after adjusting for demographic and occupational characteristics and life events during the follow-up (Model 1 in Table 5). After all variables were simultaneously entered in the model (Model 3 in Table 5), significant p for trend was observed only among the relationship between passive laissez-faire leadership and workplace bullying at follow-up (OR 3.71 [95% CI: 0.89−15.4], p for trend = 0.040). The associations of charismatic/inspirational leadership, intellectual stimulation leadership, contingent reward leadership, and active management-by-exception leadership with workplace bullying at follow-up were not significant in any model (p > 0.05).

**Group-level leadership styles and individual bullying experiences**

The results of a multilevel analysis showed that group-level charismatic/inspirational leadership, intellectual stimulation leadership, individual consideration leadership, and contingent reward leadership had significant negative relationships with individual follower experiences for workplace bullying (γ = −4.02, −3.12, −3.41, and −3.63, all p < 0.05). On the other hand, passive laissez-faire leadership had significant positive relationships with individual follower experiences for workplace bullying (γ = 4.29, p < 0.01). Active management-by-exception leadership did not relate with follower bullying experiences significantly (γ = −2.55, p > 0.05).

**Discussion**

This prospective study investigated the relationships between immediate supervisor leadership styles and followers’ exposure to workplace bullying among employees in a local government. The results showed that high score for passive laissez-faire leadership was significantly and positively associated with new exposure to workplace bullying. In contrast, high individual consideration leadership was significantly and negatively associated with new exposure to workplace bullying. Charisma/inspirational and individual consideration in transformational leadership and contingent reward in transactional leadership were also significantly and negatively associated with exposure to workplace bullying at follow-up after controlling for the baseline exposure to bullying. However, these associations were not significant when all leadership styles were entered, probably because of too small number of samples for this analysis. The finding that passive laissez-faire leadership was most strongly associated with new exposure to workplace bullying is consistent with previous cross-sectional studies and the present study expanded the cross-sectional evidence into the prospective one, through its use of longitudinal study design and well-established scales of leadership styles and workplace bullying. Additionally, the present study showed that some transformational leadership, especially individual consideration, might be a preventive factor against workplace bullying.

In this study, passive laissez-faire leadership was associated with new exposure to workplace bullying at follow-up among respondents who were not bullied at baseline, even after all variables were simultaneously entered in the model. Passive laissez-faire leadership was also associated with workplace bullying at follow-up even after adjusting for workplace bullying at baseline among the entire sample. The results are consistent with the cross-sectional findings regarding the association between laissez-faire leadership and workplace bullying. It is suggested that passive laissez-faire leadership is a strong predictor of workplace bullying, as was expected, and it even affects the new occurrence of workplace bullying. It was showed that laissez-faire leadership caused higher levels of role conflict and role ambiguity, which subsequently resulted in workplace bullying. Laissez-faire leadership, or the absence of leadership, was also considered to be closely associated with a negative safety environment. Employees under supervisors who practice laissez-faire leadership may feel frustration and stress within their workgroup, which might result in interpersonal tensions and escalated levels of conflict among coworkers. Furthermore, workers might perceive their supervisor’s passivity as indifference towards them and feel excluded from the workplace. They may think, for example, “he must dislike me” or “she does not want to work with me,” which are thoughts that are more likely to lead to feeling bullied. These possible mechanisms may explain the link between passive laissez-faire leadership and workplace bullying.

The high score for individual consideration leadership was negatively associated with new exposure to workplace bullying at follow-up. Among the entire sample, the ORs for workplace bullying at follow-up were also greater among groups with high and moderate scores for individual consideration leadership after adjusting for workplace bullying at baseline. While no previous study
has examined the association between individual consideration leadership and workplace bullying to our best knowledge, our findings are in line with the existing studies that reported a negative association between transformational leadership and workplace bullying\(^\text{17, 26, 27}\) and a positive association between organizational efficacy and worker satisfaction with leadership\(^\text{30–32}\). The supervisor as lower individual consideration may make workers feel unwanted by their supervisors. In the Japanese workplace, which is characterized by collectivism, people are expected to harmonize as a group\(^\text{41, 42}\). In this type of workplace culture, a lack of individual consideration may be perceived as a sign of social exclusion from the boss or the workplace, which might lead to feelings of frustration, stress, and job insecurity among followers. This might create a stressful work environment that can cause conflicts or bullying\(^\text{43}\).

The findings are also consistent in general with the observation by Leymann\(^\text{2}\), which indicated that the quality of leadership was a major cause of bullying at work. Lack of individual consideration by leaders could have an effect similar to that of the “helpless” or “uninterested” leadership behavior that is often found in bullying cases\(^\text{2}\). This may indicate that a lack of individual consideration and highly passive laissez-faire leadership lead to similar results. Since only passive laissez-faire leadership was significantly and positively associated with new exposure to workplace bullying after all variables were simultaneously entered in the model, lack of individual consideration might influence bullying secondarily. Conversely, it has been suggested that high or moderate levels of individual consideration expressed by supervisors could be a protective factor against follower bullying experiences.

Other aspects of transformational leadership such as strongly charismatic/inspirational leadership and intellectual stimulation were negatively associated with workplace bullying at follow-up among the entire sample in this study, while the significance of the association between intellectual stimulation leadership and bullying was statistically marginal. In contrast, these leadership styles were not significantly associated with new exposure to workplace bullying at follow-up. Lower levels of inspiration and communication of vision by leaders were reportedly associated with higher levels of bullying in their groups\(^\text{25}\).

Additionally, there are some studies which found a negative relationship between transformational leadership and workplace bullying\(^\text{17, 26, 27}\). However, the results in this study among respondents who were not bullied at baseline are inconsistent with those of the abovementioned studies. This might be explained by supervisors’ reactions to conflicts, especially in the management of bullying in work teams, because bullying usually follows minor episodes of conflict\(^\text{25}\). The supervisors as higher in charismatic/inspirational leadership behaviors are characterized by acting as role models for ethical conduct and showing their articulated vision\(^\text{18}\), and thus when conflicts or bullying occur they are more likely to intervene and stop the spread of bullying behaviors. Hence, the lack of charismatic/inspirational leadership or intellectual stimulation leadership may not directly cause the new occurrence of workplace bullying in this study, however, this type of leadership may become a key factor when bullying or negative acts exists in the workplace. The association between charismatic/inspirational leadership and workplace bullying is still unclear and should be investigated further in more diverse working situations and cultures.

Transactional leadership styles such as contingent reward leadership and active management-by-exception leadership at baseline were not significantly associated with new exposure to bullying at follow-up. Only contingent reward leadership was significantly and negatively associated with workplace bullying at follow-up after adjusting for baseline exposure to workplace bullying among the entire sample, while active management-by-exception leadership at baseline was not significantly associated with workplace bullying at follow-up in any model. The findings in the literature on the relationship between transactional leadership and workplace bullying were inconclusive\(^\text{26, 27}\). It is argued that the relationship between transactional leadership and workplace bullying exists because transactional leaders reduce uncertainty in the work environment by clarifying desired targets and performance criteria\(^\text{27, 44}\). Meanwhile, Cemaloglu\(^\text{26}\) argued that the reason why transactional leadership had no impact on workplace bullying was because of the inspective, imperious, preventive, and punishing behaviors in this type of leadership. Some subordinates may feel that their transactional supervisors really care about them, whereas others may feel that they are being punished. However, research concerning the association between transactional leadership and workplace bullying is limited; thus, this association should be investigated further in more diverse working situations and cultures.

In the present study’s sample, 14.8% at baseline and 15.1% at follow-up experienced workplace bullying. These prevalence rates are higher than the previously reported rates in another local government in Japan\(^\text{5}\) but similar to the prevalence reported in the meta-analysis\(^\text{1}\) and among other Japanese workers\(^\text{3, 4}\). Although the
prevalence in this study was not much higher than those reported in Japan, there is a possibility that the prevalence was higher than usual. The local government from which we drew our participants governs a city that was partly affected by the magnitude 9.0 Great East Japan Earthquake of March 2011 and the baseline survey was conducted six months after the earthquake. Although the tsunami did not have a direct impact on this city, buildings and streets were partly destroyed by soil liquefaction due to the earthquake, so that most of the local government workers had to move to temporary prefabricated offices or community centers with small spaces and had to deal with irregular tasks related to the earthquake, such as determining the extent of the damage of houses and streets in the city and issuing the victim's certificates. Although the disaster and its aftermath may not have directly affected workplace bullying, previous studies have shown that stressful and poorly organized work environments can create conditions conducive to bullying. Stressful life events after the earthquake may also have escalated the conflict levels in the workplace. Thus, this event may have accounted for the unusually high prevalence of bullying in this study.

Finally, some other limitations of the present study should be considered. First, the baseline and follow-up response rates were moderate. The follow-up survey was conducted in March, which is one of the busiest months in Japan, because the new school term starts in April, and March is an account-closing month. We could have set a longer follow-up period to avoid this, but one out of four workers of this local government usually transfers to a different department every April, which means that their supervisors also change. Hence, we had to conduct the follow-up survey before this change, which could have been a cause of the decreased follow-up rate, as participants did not have enough time to respond. This could have further increased the likelihood that only those participants who experienced workplace bullying or felt frustrated with their supervisor's leadership style would respond to the follow-up survey, which could have resulted in overestimation of the association between negative leadership and workplace bullying. Second, the sample size in the present study was small, which may have reduced the statistical power of the study. It was probably because of too small number of samples for the analysis why we could not find the significant associations when all leadership styles were entered in the model. Third, the present sample came from only one city in Japan, and all participants were civil servants. Most participants were administrators/clerks or fire fighters, and there were relatively few manual workers. Furthermore, although we did not distinguish the union members and non-members, the questionnaires were distributed through labor unions. The authors did not have a list which identify whether he/she was a member or not, nor did the labor unions have a list who answered or not. However, the response rate among the union members might be higher than non-members. Additionally, as noted above, this city was affected by the 9.0 magnitude Great East Japan Earthquake of March 2011. Thus more than half of the respondents had experienced some stressful life event, including personal injury or house problems during follow-up. Although we adjusted this variable in our analysis, any generalization of our findings should be done carefully. Fourth, all data were collected using self-reported questionnaires, which may have resulted in common method bias. Nonetheless, the time lag between baseline and follow-up may have prevented this bias because the present study assessed independent and dependent variables separately. Using a standardized scale of workplace bullying is considered to be more objective than asking a single question on whether the respondent has been bullied, because such scales ask about bullying behaviors toward a victim rather than the victim's perception of being bullied. The NAQ-R does not require respondents to label negative behaviors as bullying or themselves as victims, which is less likely to prompt the respondent's cognitive or emotional processing. Fifth, the present study did not identify any mechanisms or test the mediating effects of these variables, i.e., role conflict, role ambiguity, or interpersonal tensions, on the observed longitudinal association between passive laissez-faire leadership and workplace bullying. Future studies should examine possible mechanisms and possible mediators in a longitudinal study as well as replicate the present longitudinal findings in other settings, such as the private sector, manual workers, and other countries. Sixth, factors that could influence workers' perception of workplace bullying and leadership styles, such as neuroticism as a personality trait, coping styles, and socio-economic details, should be adjusted for. Seventh, supervisor leadership styles were measured using the Japanese version of the MLQ, which shows high correlations between the leadership styles. There might be other labels of leadership styles that better fit Japanese society, such as group-oriented leadership; future studies should seek a more effective way to measure proper leadership through factor analyses. Eighth, we didn't ask respondents who the perpetrator was in this study. The future study should ask the perpetrators to identify the direct and indirect influence of leadership styles.
toward bullying. Finally, although this study investigated various leadership styles as predictors of bullying, other important organizational factors may have an influence on exposure to workplace bullying. To fully understand the organizational predictors of bullying, future studies in this area should also investigate organizational factors, such as role conflict or role ambiguity and other work stressors, as well as other types of leadership behaviors.

A strength of this study is that it identified the association between multifactor supervisor leadership styles and workplace bullying using a longitudinal study design. Using a longitudinal study design as well as well-established measures of leadership styles and workplace bullying, this study adds to the existing literature by showing that passive laissez-faire leadership was the strongest predictor of new exposure to workplace bullying, and a high level of individual consideration in leadership was a preventive factor against new exposure to workplace bullying. Additionally, transformational leadership could prevent the spread of workplace bullying. These findings might have important implications for the prevention of workplace bullying. For instance, it may be useful to provide an educational intervention program for managers and supervisors to inform them that doing nothing can be most harmful, whereas positive and active relationships with followers could prevent the spread of conflicts between them. However, further study is needed to fully understand the relationships between organizational factors, including various leadership styles, and the occurrence of workplace bullying in both public and private sectors as well as across countries.

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