Supervisors’ Attitudes and Skills for Active Listening with Regard to Working Conditions and Psychological Stress Reactions among Subordinate Workers

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Abstract: Supervisors’ Attitudes and Skills for Active Listening with Regard to Working Conditions and Psychological Stress Reactions among Subordinate Workers: Sachiko Mineyama, et al. Hygiene and Preventive Medicine, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences—We investigated whether supervisors’ listening attitudes and skills were related to working conditions and psychological stress reactions among their subordinates. The subjects included 41 male supervisors and their immediate subordinates (n=203). The supervisors completed a short version of the Active Listening Attitude Scale (ALAS) consisting of two subscales: Listening Attitude and Listening Skill for Active Listening. The subordinates rated working conditions and their psychological stress reactions using selected scales of the Job Content Questionnaire and the Brief Job Stress Questionnaire. Those subordinates who worked under supervisors with a higher score of Listening Attitude and Listening Skill reported a more favorable psychological stress reaction than those who worked under supervisors with a lower score of Listening Attitude and Listening Skill. Those subordinates who worked under supervisors with a higher score of Listening Skill reported higher worksite support than those who worked under supervisors with a lower score of Listening Skill. Those subordinates who worked under supervisors with a higher score of Listening Attitude reported higher job control than those who worked under supervisors with a lower score of Listening Attitude. A supervisor’s listening attitude and skill appeared to affect psychological stress reactions predominantly among male subordinates than among female subordinates. Psychological stress reactions were lower among younger subordinates who worked under supervisors with high listening skill, while no statistically difference was observed among older subordinates. These findings suggest that a supervisor’s listening attitude and skill have an effect on working conditions and psychological stress reactions among subordinates and that the effects vary according to the subordinates’ sex and age.

Key words: Active Listening, Active Listening Attitude Scale (ALAS), Supervisory support, Psychological stress reaction, Working condition

Active listening (AL) is a way of listening and responding to another person, which improves mutual understanding, and consists of three attitudes empathy, congruence and unconditional positive regard, called person-centered attitude. It was initially developed as a core technique of counselors listening to their clients in the Person-Centered Therapy of Carl Rogers and was later applied to non-therapeutic situations as a tool for better communication including supervisor-subordinate relationships. AL has attracted growing attention in the field of occupational psychology and is widely used as a basis for listener training for supervisors at the workplace.

Listening attitude and listening skill constitute a central part of the AL concept. Listening attitude refers to person-centered attitude based on empathy, congruence and unconditional positive regard, and listening skill to responses and technique of promoting conversation. Having a favorable listening attitude and skill as a supervisor may improve communication with subordinates, which would result in greater supervisor support as perceived by subordinates. Supervisory support leads the subordinates to believe that they are...
cared for, which has been associated with less depression⁹, or less fatigue⁷. Good listening attitudes and skills might enhance open communication between the supervisor and subordinates about work-related problems or personal troubles, which in turn, could lead to early resolution of the problems.

There are very few empirical studies that have explored the association between supervisors’ listening attitudes and skills and their subordinates’ psychological stress reactions. Ikemi et al.⁸ found that subordinates who reported that their supervisors had a high person-centered attitude, which is a core attitude for AL, had significantly less fatigue, depression and anxiety than those who evaluated supervisors with a low person-centered attitude. However, in this previous study, the subordinates rated both the supervisors’ person-centered attitude and their own psychological stress. Therefore, the results may have been affected by possible inflation by the common method variance⁹ and a response set bias, such as a negative affectivity of individuals⁹.

The objective of this study was to investigate whether supervisors’ listening attitudes and skills rated by the supervisors themselves were related to perceived working conditions and the psychological stress reactions among their subordinates as rated by the subordinates themselves. We hypothesized that subordinates who worked under supervisors with a better listening attitude or skill perceived their working conditions better and reduced psychological stress reaction more than those who worked under supervisors who did not have a good listening attitude or skill. Furthermore, because the communication styles between supervisors and subordinates may vary according to the subordinates’ demographics, we conducted additional sub-group analyses by subordinates’ sex and age.

**Subjects and Methods**

**Subjects**

A questionnaire survey was conducted of all employees (n=301, excluding the president and executives) working at a brewing company in the Kansai (west) region of Japan. The subjects included 46 supervisors and 255 subordinates. The survey was carried out using self-rated questionnaires in October 2003. Supervisors were asked to complete a questionnaire on their listening attitude and skill. Other employees were asked to complete a questionnaire on their working conditions and psychological stress reactions. All supervisors returned the questionnaire and 42 (91%) of them completed all questions. All subordinates returned the questionnaire, and 236 (93%) of them completed all questions. We identified the immediate supervisor-subordinate relationships based on the performance assessment relationship. There was one female supervisor out of 42 supervisors. Because this number was small, we decided to exclude the female supervisor and her subordinate from the analysis. The final sample included 203 subordinates (80%) who worked under the immediate supervision of male supervisors.

**Active Listening Attitude Scale (ALAS)**

Listening attitude and skill among supervisors was measured by the Active Listening Attitude Scale (ALAS), which was developed by Mishima and Kubota⁸. The original ALAS consists of 47-items with 4-point response options (agree, rather agree, rather disagree, and disagree) and yields three subscales labeled: Listening Attitude (13 items), Listening Skill (11 items) and Conversation Opportunity (7 items). Each item response is scored as 0–3 and the total score of each subscale is calculated so that a greater score indicates a better attitude or a better skill for AL. The validity of these subscales has been tested by comparing these scores between ordinary workers and specialists in psychosomatic medicine. Mishima et al. further developed a 20-item short version of ALAS, which consists of two 10-item subscales, i.e., Listening Attitude and Listening Skill, using selected items of the original version¹¹. Listening Attitude is measured by phrases such as: “I tend to persist in my opinion (reverse scoring)”, “I tend to talk in a directive and persuasive way (reverse scoring)” and “I tend to deny his/her opinion (reverse scoring)”. The items of Listening Attitude are designed to relate either to empathy or to unconditional positive regard⁹, and may well be related to the manner of respect for a person as an individual. Listening Skill is measured by phrases such as: “I summarize in my mind what he/she has said”, “I give him/her a brief summary of what he/she has said” and “When he/she is hesitating, I give him/her a chance”. The items of Listening Skill are designed to relate to the skill of responses, which promote a conversation. An acceptable level of correlation with each original factor and reliability has been shown for the short version of ALAS. In this study, we used the short version to evaluate the listening attitude and skill of supervisors. Cronbach’s alpha coefficients were 0.85 for Listening Attitude, and 0.61 for Listening Skill in this sample of 41 supervisors. The means (standard deviation) of Listening Attitude and Listening Skill subscale scores were 16.8 (4.2) and 18.5 (2.5), respectively. The medians of Listening Attitude and Listening Skill subscale scores were 16 and 19, respectively.

**Assessment of working conditions**

Perceived working conditions were evaluated by selected scales of the Job Content Questionnaire (JCQ) as follows: 5-item job demand scale, 9-item job control scale, 4-item supervisor support scale, and 4-item coworker support scale¹². The Japanese version of the scales showed acceptable levels of reliability and validity in a previous study¹³. Each item has a 4-point response ranking from 1 (strongly disagree) to 4 (strongly agree).
The job demand score ranged from 12 to 48, with the greater score being indicative of a greater amount of workload and conflict demands. The job control score ranged from 24 to 96, with the greater score being indicative of a greater opportunity in making decisions at work and greater skill discretion. Supervisor support and coworker support scores ranged from 4 to 16, with the greater score being indicative of greater perceived worksite support. Cronbach’s alpha coefficients were 0.61 for job demand, 0.83 for job control, 0.88 for supervisor support and 0.81 for coworker support in this sample (n=203).

**Psychological stress reactions**

Psychological stress reactions among the subordinates were measured by the 18-item scale from the Brief Job Stress Questionnaire (BJSQ)\(^5\). This scale includes items of psychological complaints that were experienced by individuals during the past month. It consists of 5 subscales: vigor (3 items), anger-irritability (3 items), fatigue (3 items), anxiety (3 items) and depression (6 items). The response option that was based on frequency was scored on a Likert scale from 1 (very rarely) to 4 (almost all the time) and summed to make each subscale score, so that the greater scores indicated greater psychological stress reactions, except for the vigor subscale in which the greater score was indicative of having more positive feelings. Furthermore, we summed the five subscale scores to make a total score after the vigor score was reversed. Cronbach’s alpha coefficients were 0.89 for vigor, 0.87 for anger-irritability, 0.86 for fatigue, 0.75 for anxiety, 0.88 for depression and 0.80 for the total score in this sample (n=203).

**Other covariates**

Demographic covariates at both individual and workplace levels were also measured. These included sex, age (years), occupation (manager, foreman, white-collar and blue-collar workers), education (years), duration of employment (years) and size of workplace (the number of subordinates under a supervisor).

**Statistical analysis**

We classified supervisors into high and low score groups based on the median of the ALAS subscale Listening Attitude, and then classified subordinates into two groups (Listening Attitude, high and low score groups) based on their supervisor’s group. In the same way, we classified supervisors into high and low score groups based on the median of Listening Skill, and then classified subordinates into Listening Skill high and low score groups based on their supervisor’s group. We compared characteristics of supervisors and subordinates between the high and low score groups by t-test and chi-square test.

First, crude mean scores of work conditions and psychological stress reaction scales among subordinates were compared between Listening Attitude high and low score groups, and Listening Skill high and low score groups (t-test). Then, an analysis of covariance (ANCOVA) was used to compare adjusted mean scores of the above-mentioned scale rated by subordinates between the two groups classified on the basis of their supervisor’s ALAS subscale score, controlling for sex, age, occupation, education, duration of employment of subordinates, age of supervisors and size of workplace. In order to determine whether the association differed according to sex or age, we conducted the same analyses separately for men and women, and for younger (under 35 yr old) and older (36–69 yr old) age groups. Male subordinates were grouped into Listening Attitude high (n=93) and low score groups (n=49) and Listening Skill high (n=77) and low score groups (n=65). Female subordinates were grouped into Listening Attitude high (n=29) and low score groups (n=32) and Listening Skill high (n=31) and low score groups (n=30). Younger subordinates were grouped into Listening Attitude high (n=62) and low score groups (n=51) and Listening Skill high (n=56) and low score groups (n=57). Older subordinates were grouped into Listening Attitude high (n=60) and low score groups (n=30) and Listening Skill high (n=52) and low score groups (n=38). A P value less than 0.05 was considered statistically significant. Statistical analyses were undertaken with SPSS 11.5 for Windows (SPSS Inc., Chicago, Ill, USA).

The study design and procedure were reviewed and approved by the Human Ethics Committee of Okayama University, Japan. The responses to the questionnaire surveys were considered to be an agreement to participate in the study.

**Results**

Characteristics of supervisors are shown according to the two groups based on the level of the ALAS subscales, Listening Attitude and Listening Skill (Table 1). Demographic variables including sex, age, education, duration of employment, occupation and size of workplace were evenly distributed.

Characteristics of subordinates are shown in Table 2. With regard to the Listening Attitude subscale, the proportion of male workers was larger among the high score group than among the low score group. Subordinates in the high score group were significantly older than those in the low score group. There were no differences in sample characteristics between the high and low score groups for the Listening Skill subscale.

Crude mean scores of working conditions and psychological stress reactions among the subordinate groups classified on the basis of their supervisors’ levels of AL scores are shown in Table 3. All the indices were desirable for working conditions and psychological stress
reactions for both high score groups of Listening Attitude and Listening Skill. For the Listening Attitude subscale, there were also significant differences in job control, anger, fatigue, anxiety, depression and total psychological stress reaction scores between the high and low score groups. For the Listening Skill subscale, there were significant differences in fatigue, depression and total psychological stress reaction scores between the high and low score groups.

Table 4 shows the results of comparison of adjusted mean scores of working conditions and psychological stress reactions among subordinates after controlling for the covariates. For the Listening Attitude subscale, a statistically significant difference was found in job control between the high and low score groups. Anxiety and total psychological stress reaction scores were significantly lower, in the high score group than in the low score group. For the Listening Skill subscale, supervisory support was marginally significantly higher, and coworker support was significantly higher in the high score group than in the low score group. Vigor was significantly higher, and depression and total psychological stress reaction scores were significantly lower in the high score group than in the low score group. Fatigue and anxiety were also marginally significantly lower in the high score group than in the low score group.

The sex-stratified analyses with regard to the Listening Attitude subscale revealed that men of the high score group reported significantly higher job control than men of the low score group ($F=5.1$, $p=.026$). Statistically significant differences were also found in anger ($F=4.3$, $p=.041$), anxiety ($F=4.7$, $p=.032$) and total psychological stress reaction scores ($F=4.0$, $p=.047$) between the high

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**Table 1.** Characteristics of high and low score groups among supervisors classified by the median of each of the Active Listening Attitude Scale (ALAS) subscales Listening Attitude and Listening Skill

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Listening Attitude</th>
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<th>Listening Skill</th>
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<td>High score group</td>
<td>Low score group</td>
<td>High score group</td>
<td>Low score group</td>
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<td></td>
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<td>(n=19)</td>
<td>(n=21)</td>
<td>(n=20)</td>
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<tr>
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<td>n Mean SD %</td>
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<td>48.9 5.5</td>
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<td>Education (yr)</td>
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<td>15 68 12 63</td>
<td>14 67 13 65</td>
<td></td>
<td></td>
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<tr>
<td>Foreman</td>
<td>7 32 7 37</td>
<td>7 33 7 35</td>
<td></td>
<td></td>
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<tr>
<td>Size of workplace</td>
<td>6.0 5.5</td>
<td>4.7 4.1</td>
<td>5.6 5.6</td>
<td>5.2 4.2</td>
</tr>
</tbody>
</table>

**Table 2.** Characteristics of high and low score groups among subordinates classified by their supervisor’s median of the Active Listening Attitude Scale (ALAS) subscales Listening Attitude and Listening Skill

<table>
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<th>Listening Skill</th>
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<td>High score group</td>
<td>Low score group</td>
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<td>(n=81)</td>
<td>(n=108)</td>
<td>(n=95)</td>
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<tr>
<td>Age (yr)</td>
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<td>n Mean SD %</td>
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<tr>
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<td>49.5 3.5</td>
<td>49.3 6.3</td>
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<tr>
<td>Education (yr)</td>
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<td>Occupation:</td>
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and low score groups among men. For the Listening Skill subscale, statistically significant differences were found in vigor \((F=5.9, p=.016)\), depression \((F=11.6, p=.001)\) and total psychological stress reaction scores \((F=8.6, p=.004)\) between the high and low score groups among men. Among female subordinates, statistically significant differences were found in job control \((F=8.0, p=.007)\) and fatigue \((F=5.2, p=.026)\) between the high and low score Listening Skill groups.

The stratified analyses by age with regard to the Listening Attitude subscale revealed that job control was significantly higher \((F=6.4, p=.013)\) in older subordinates of the high score group than those of the low score group. For the Listening Skill subscale, fatigue \((F=8.4, p=.005)\), anxiety \((F=4.0, p=.048)\), depression \((F=7.0, p=.009)\) and total psychological stress reactions scores were significantly lower \((F=7.0, p=.009)\) in younger subordinates of the high score groups than those of the low score groups.

The analyses including the subordinate who worked under the female supervisor provided almost the same results as presented above.

**Discussion**

In the present study, supervisors’ listening attitudes and skills were related to favorable working conditions and
psychological stress reactions among their subordinates. The observed associations are consistent with those reported in a previous study by Ikemi et al., which linked subordinates’ perceptions of their supervisor’s listening attitude and their own psychological distress. We confirmed the associations even when independent ratings by supervisors of their listening attitude and skill were used. In addition, our study expanded current knowledge of associations between supervisors’ listening attitude/skill and perceived working conditions, in that, the effects varied according to the subordinates’ sex or age groups.

A supervisor’s listening attitude and skill appeared to play an important role in the psychological stress reaction among subordinates in this study. The observed findings suggest that listening attitude and skill have somewhat different effects on subordinates’ perceptions. The supervisor’s listening skill seems to be associated with supportive work conditions. The Listening Skill scale reflects the skill of responses during conversation, which activates the communication. Good communication is an indispensable delivery system of supportive concern for others and a favorable way of verbal communication would be transmittable across group members. Enhanced supportive conditions at the workplace might lead to good psychological stress reactions of subordinates.

The supervisor’s listening attitude was also associated with job control, which is also known to have a positive effect on the psychological stress reaction of workers. Among two subscales of job control, “skill discretion” and “decision authority”, the association between the supervisors’ listening attitudes and job control appeared largely attributable to the positive association between the supervisors’ high listening attitude and the subordinates’ decision authority ($F=7.5$, $p=.007$). Subordinates may feel greater decision authority when their supervisors show respect with a greater level of listening attitude. Enhanced decision authority might be a possible pathway through which a supervisor’s favorable listening attitude leads to good psychological condition among their subordinates.

Some gender difference was seen in the associations between supervisors’ listening attitude/skill and perceived working conditions and psychological stress reaction. Job control was higher among male subordinates who worked under a supervisor in the Listening Attitude high score group than those who worked under a supervisor in the Listening Attitude low score group. However, job control was related to the listening skill among female subordinates. Notably, the associations between a supervisor’s listening attitude/skill and psychological stress reactions were more prominent among men than among women. The stronger effects could be due to the fact that the selected supervisors in this study were only men; it might be possible that the supervisor’s listening attitude/skill would have stronger impacts among same-sex subordinates (men). Another possible explanation is that men are more likely to be influenced by their supervisors’ directions because of their higher commitment to work. Some previous studies have indicated gender differences of perceptions and utilization of resources. Further investigation is required to examine the effect of supervisory AL on gender difference among subordinates.

Psychological stress reactions were lower among the younger subordinates who worked under supervisors with a high listening skill, while no statistically significant difference was observed among older subordinates. Because of little work experience, young employees might need to consult their supervisor with respect to clarification more than older employees. A supervisor’s higher listening skill might make it easier for subordinates to consult him, which might result in larger benefits for younger subordinates than veteran subordinates. On the other hand, the association between a favorable listening attitude among supervisors and high job control among subordinates was found only among older subordinates. Therefore, it might be more important for older subordinates to work with autonomy.

The following limitations of the present study need to be considered. First, because of the cross-sectional design of the study, a causal relationship was not necessarily demonstrated by these results. We should consider the possibility that psychological state among one person (i.e., subordinates in this study) could affect another person’s (i.e., supervisor) attitude or skill (the crossover effect). It is also plausible that psychological stress states among subordinates might affect their own perception of social support. More definite evidence needs to be obtained from a longitudinal study. Second, we could not fully address listening attitude/skills among female supervisors because the number of female supervisors was very small. Therefore, our findings should not be generalized to the association between female supervisors and their subordinates. Third, we identified each supervisor who was an immediate supervisor for their subordinates by the company’s organizational tree. There is, however, an undeniable possibility that subordinates might evaluate another supervisor with whom they worked more closely. Both measurements of listening attitude/skill and working conditions/psychological stress reaction were derived from self-reports, which was another limitation. Although substantial validation was pursued, ALAS might suffer from some types of response bias. Further studies using alternative measurements such as observation by experts would help determine the association.

On the other hand, the response rates of both supervisors and subordinates were high (above 90%), which might contribute to the internal validity of the study. Notwithstanding its limitations, our results add to
the literature of possible beneficial effects of AL on workers’ mental health. Listener training for supervisors at the workplace should be encouraged. Because listening skill is important as well as listening attitude, effective training would include role-playing exercises and overall discussion, through which supervisors can find how to do AL by themselves, instead of providing only a lecture4).

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References

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