Methods of Mitigating the Paradox of Compassion in the Organizational Behavior of Government Employees: A Case of Animal Protection Agencies in Taiwan

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According to psychologists, for workers whose job is to help others, their quality of service is improved if they have compassion. However, compassion potentially produces the side effect of compassion fatigue, which decreases service quality. According to sociologists, professionals who must interact with animals, such as veterinarians or butchers adopt the role of a “gate-keeper”. Specifically, these professionals are troubled by the conflict between compassion and the faithful execution of the law. This conflict induces, in them, harmful behavior toward the animals. To verify these arguments, we empirically investigated government employees in a Taiwanese animal protection agency. Results from structural equation modeling indicate that although compassion toward animals can increase discretionary effort and mitigate ethics exhaustion, compassion fatigue weakened the factors mitigating ethics exhaustion, which increased harm toward the animals. Therefore, to relieve compassion fatigue, the workload of government employees must be reduced.

Keywords: gate-keeper, compassion, compassion fatigue, structural equation modeling

Introduction

The literature in organizational theory has traditionally used principal-agent theory to describe government-employee behavior. As agents, the government employee has an information-asymmetry advantage over customers. This advantage potentially results in behavior that disadvantages customers (adverse selection) and lazy attitudes in service provision (moral hazards) (Williamson, 1985; Laffont & Tirole, 1988; Bergen, Dutta, & Walker Jr, 1992).

However, the recent empirical literature on public service motivation (Rainey & Steinbauer, 1999) has discovered that not all government employees are self-interested agents. In fact, anecdotal evidence strongly
indicates a high level of compassion in government employees (Perry, 1996). Intuitively, compassion in government employees increases their motivation and service quality. However, the average citizen thinks of government employees as unmotivated and providers of poor-quality service. This disagreement suggests a paradox between (high) compassion and (low) service quality.

This paradox has been investigated in psychology and sociology. The psychological literature on “compassion fatigue” is extensive. Although compassion in nurses, pastors, counselors, and those in similar occupations (Joinson, 1992; Hooper, Craig, Janvrin, Wetsel, & Reimels, 2010) can increase service quality (in their help toward others), studies have also determined that compassion results in overexhaustion. Over the long term, overexhaustion potentially induces professional and compassion fatigue in the caregiver (Conrad & Kellar-Guenther, 2006).

Furthermore, sociologists who study “gate-keeper” professions involving human-animal interaction, such as livestock producers and veterinarians (DeMello, 2012), have noted that these professionals often face conflicts between compassion and their gate-keeping responsibilities (Vialles, 1994; LeDuff, 2000). To meet the needs of human beings, livestock producers must often slaughter animals that they have raised with care. Moreover, in cases of an epidemic, veterinarians must often cull those animals that they are supposed to protect. Studies have noted that gate-keepers who are under this type of stress for long periods gradually become emotionally numb.

Therefore, among government employees whose job is to help others, government employees in animal protection encounter the most severe compassion dilemma. This is primarily because in animal protection, people are not the service subjects. Thus, due to this lack of contact, people find it difficult to empathize with the compassion fatigue experienced by government employees in animal protection. Thus, studies have argued that gate-keeping workers who sympathize with the animals lack the right to express their grief (i.e., disenfranchised grief) (Dickinson, P. D. Roof, & K. W. Roof, 2010, p. 153). Moreover, even when these gate-keepers face psychological dilemmas, they do not dare to seek psychological help, thus resulting in self-stigma (McArthur, Andrews, Conor, & Susan, 2017, p. 16).

Therefore, government employees in animal protection were the subject of our empirical investigation. We attempted to clarify the following questions: (1) Do government employees in animal protection have compassion? What are the government-employee characteristics associated with greater compassion? (2) For gate-keepers, can compassion increase discretionary effort and reduce ethics exhaustion? (3) Will compassion fatigue dilemma, as an intervention, diminish the positive association between compassion and organizational behavior? (4) Does an organization have methods of reducing compassion fatigue, thereby restoring the positive effects of compassion on organizational behavior?

In the next part, we analyze—using the empirical literature in sociology and psychology—the concepts of compassion and compassion fatigue in gate-keepers and their effects on organizational behavior. In the second part, we describe our research design and propose the hypotheses to be tested. In the third part, we detail our results. Finally, we propose recommendations for scholars and policy-makers based on our results.

**Literature Review**

**Demographic Traits of Governmental Employees and Compassion**

Studies have quantified the compassion in government employees to be higher than average (Perry, 1996, p. 12; Andersen, Jorgensen, Kjeldsen, Pedersen, & Vrangbæk, 2012, p. 300). Furthermore, a person’s gender,
age, and socialization affect their level of compassion. Women, on average, have a higher empathy quotient than men (Baron-Cohen, Knickmeyer, & Belmonte, 2005). In addition, people learn to care for others as they age, through organizational learning, resulting in altruistic behavior (Hoffman, 2000).

**Compassion’s Positive Effect on Organizational Behavior**

**Administrative performance: The possibility of improving “discretionary effort”**. Discretionary effort refers to voluntary employee effort beyond the employee’s job scope. Such effort does not stem from leadership decisions or an organizational system (Lee & Liu, 2016). Compassion can increase discretionary effort due to the following reasons. First, compassion functions as a spotlight that focuses our attention on those issues requiring our help (Bloom, 2016). Evidence strongly suggests that compassion’s gating model induces compassion in people toward weak women (Eagly & Crowley, 1986), as well as small animals and individuals with neotenic features (Watt, 2007; Preston, 2013; Batson, Lishner, Cook, & Sawyer, 2005). Furthermore, the identifiable victim effect has been proposed, describing how easily identifiable “individual suffering” is likely to trigger compassion (Kogut & Ritov, 2005). Moreover, similarity, familiarity, and social attachment between people can also increase their compassion toward each other (Watt, 2007). Finally, previous studies have discovered that animal protection caretakers obtain joy from their ability to help animals (Figley & Roop, 2006, p. 13). The resulting compassion satisfaction (Simon, Pryce, Roff, & Klemmack, 2005) can produce more positive care results (Stamm, 1999) and increase the caretaker’s discretionary effort at work.

**Administrative ethics: Reducing the dilemma from ethics exhaustion**. In veterinarian psychology, ethics exhaustion describes the veterinarian’s failure to keep their actions in line with their ethical beliefs because of fatigue, emotional distress, and a lack of will (Lengyel, 2018). The following two phenomena accompany the effect of ethics exhaustion on behavior toward animals. Firstly, a person denying the fact—often through moral justification—that they are harming the animal. Secondly, a person compromising their own value commitments to protect animals in the face of external demands1.

How can such problems from ethics exhaustion be addressed? Previous studies have indicated that cultivating a person’s compassion can ameliorate a person’s moral disengagement-related dilemma (Lazuras, Pyżalski, Barkoukis, & Tsorbatzoudis, 2012, p. 65). For example, Ang and Goh (2010) and Ybarra and Mitchell (2004) discovered that if teachers cultivate compassion and use role playing scenarios during their teaching, they can decrease, among students, the likelihood of moral disengagement and probability of bullying.

**Compassion-Induced Compassion Fatigue in Gate-Keepers**

Compassion fatigue refers to clear stress-induced physical, social, emotional, mental, and intellectual changes, where such stress stems from the strong long-term emotional bond between the helper and person being helped (Coetzee & Klopper, 2010, p. 237). Compassion fatigue has two essential components: secondary traumatic stress and job burnout. Secondary traumatic stress refers to the helper’s development of symptoms (through their empathy) that are similar to those of the primary trauma survivor they are helping (Figley &

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1 In fact, this type of ethics exhaustion is the nonresponsibility (NR) phenomenon in the social-psychological concept of moral disengagement (Bandura, 1986; Bandura, 1990). NR means that the gatekeeper will attempt to justify the situation, where they are inflicting harm on others, by attributing it to the system or to others, thus absolving themselves from moral responsibility. In addition to NR, the three other types of moral disengagement patterns are as follows: (1) Moral justification, which is the rationalization of one’s behavior that has yet to cause harm; (2) a disregard or distortion of the consequences of one’s behavior; and (3) dehumanization: a situation where the responsibility for the harm is attributed to the victim.
Roop, 2006, p. 22; Craig & Sprang, 2010). Job burnout is the physical fatigue and mental exhaustion resulting from a long-term negative interaction with a workplace environment; it is common in front-line workers, such as nurses, doctors, and policemen (Freudenberger, 1974).

Job burnout (as a form of compassion fatigue) is especially acute in gate-keepers in animal protection. In the book Regarding Animals, Arluke and Sanders (1996) used an ethnographic approach to analyze veterinarians and animal experimenters. They observed that these gate-keepers faced severe psychological dilemmas. Arluke (1991) used the caring-killing paradox to describe government animal shelter veterinarians. Because public shelters have insufficient space, veterinarians must euthanize animals to prevent animals from attacking each other or halt the transmission of disease; such euthanasia causes a severe psychological dilemma between caring and killing (Demello, 2012).

**Paradox Produced by Compassion Fatigue**

**Paradox of compassion fatigue weakens discretionary effort.** When the gate-keeper’s compassion is continually depleted, physical and mental fatigue increase. Such fatigue, in turn, weakens discretionary effort. Previous studies have demonstrated that when nursing personnel experience compassion fatigue, work performance is affected and the error rate increases. These in turn cause employees to contemplate resignation and lower the patient satisfaction rate (Schwam, 1998; Leiter, Harvie, & Frizzell, 1999). Decrease discretionary effort can lower the organization’s internal productivity, increase inefficiency, and increase the number of dangerous and unsafe situations, thus negatively affecting the organization’s service quality. In addition, increases in absenteeism and job vacancies require the organization to expend greater resources on recruitment and training, which increases the organization’s cost (Medland, Howard-Ruben, & Whitaker, 2004; Meadors & Lamson, 2008).

**Ethics exhaustion paradox produced by compassion fatigue.** Because government employees have limited resources, those who act as gate-keepers often repress their compassion toward the disadvantaged. Gate-keepers will “lie to themselves” to attribute the ethical stress that they should be bearing to the system or to their supervisor and colleagues (Lengyel, 2018). In doing so, these individuals attribute “new meaning” to ethically controversial behavior (DeMello, 2012, p. 219), which then becomes “moral schizophrenia” (Francione, 2000, pp. 23-24). For example, to assuage their guilt, scientists who must use live animals for experiments will often inflate, as a justification, the benefits that science brings to humanity (Birke, 1994; Barsky, 2011). Ethics exhaustion also results in unconscious decisions that harm animals.

**Methods to Relieve Compassion Fatigue Dilemma**

**Relief strategy in the organizational process—increasing organizational support.** Previous studies have discovered that constructive support teams (Rourke, 2007) can provide gate-keepers who interact with animals (such as veterinarians, animal care volunteers, and ranch operators) with on-site profession resources (Aycock & Boyle, 2009). These on-site profession resources can come in the form of courses related to compassion fatigue relief, such as the teaching of mindfulness (Dobkin & Hutchinson, 2013), promotion of healthy behavior (Neville & Cole, 2013), conduct of wellness programs (Zadeh, Gamba, Hudson, & Wiener, 2012), and establishment of a resiliency program (Potter et al., 2013). The resources aim to prevent employees from severing close relationships with family and friends due to compassion fatigue, thus countering the potential isolation faced by employees in their encounter of difficulties (Harrison & Westwood, 2009).
**Relief strategy of lowering workload.** Previous studies have noted that if an individual can mentally or physically distance themselves from the source of stress—through, for example, a reduced workload or a leave of absence from the worksite—these individuals can create the space required for mental or physical recovery, in their response to compassion fatigue (Keidel, 2002; Yoder, 2010). Thus, organizations must help members set physical and psychological boundaries. Psychologically, the organization should remind employees not to invest themselves completely in their work (Gleichgerrcht & Decety, 2013). To stave off compassion fatigue, “exquisite empathy” can also be used to increase satisfaction (Harrison & Westwood, 2009). Physically, the organization must clearly define work boundaries, such as effectively manage animal shelter capacity (Figley, 2002). These measures minimize the scope of problems into one that employees can handle (Harrison & Westwood, 2009).

**Research Design**

**Research Framework and Hypothesis**

This study proposes three hypotheses, based on previous studies, on the relationship between demographic traits and compassion:

Hypothesis 1: Compared with their male counterparts, female government employees in animal protection have higher compassion toward animals.

Hypothesis 2: Older government employees in animal protection have higher compassion toward animals.

Hypothesis 3: More senior government employees in animal protection have higher compassion toward animals.

As for the positive effects of compassion on the organization, the research framework to be verified, of which there is one, is illustrated in Figure 1 (note the thickest frame and arrow).

Hypothesis 4: Compassion increases discretionary effort.

Hypothesis 5: Compassion decreases ethics exhaustion.

The medium frame and arrow illustrate both the occurrence of a mediating effect and the effect of compassion fatigue on the relationship between compassion and organizational behavior (specifically, ethics exhaustion and discretionary effort).

Hypothesis 6: Compassion increases discretionary effort. However, after the mediation by compassion fatigue, the positive effect of compassion on discretionary effort weakens.

Hypothesis 7: Compassion decreases ethics exhaustion. However, after the mediation by compassion fatigue, the negative effect of compassion on ethics exhaustion weakens.

The thinnest frame and arrow illustrate the relief of compassion fatigue through organizational support and a lower workload.

Hypothesis 8: Increased organizational support can eliminate the mediating effect of compassion fatigue, allowing compassion to recover its effect on discretionary effort.

Hypothesis 9: Decreased workload can eliminate the mediating effect of compassion fatigue, allowing compassion to recover its effect on discretionary effort.

Hypothesis 10: Increased organizational support can eliminate the mediating effect of compassion fatigue, allowing compassion to recover its ability to mitigate ethics exhaustion.

Hypothesis 11: Decreased workload can eliminate the mediating effect of compassion fatigue, allowing compassion to recover its ability to mitigate ethics exhaustion.
Variables and Measuring Tools

To ensure reliability and validity, the author solicited the opinions of two experts in organizational theory and two experts in animal protection on how the scale can be improved. One unit was selected from the study population (the Tainan City Animal Health Inspection and Protection Office). From this unit, 30 participants underwent the pretest. Valid questions were retained and used in the study’s questionnaire.

For the questionnaire’s reliability and validity, confirmatory factor analysis was used to test the construct goodness-of-fit. Factor loading, component reliability (CR), and average variance extracted (AVE) were used to inspect whether the factor loadings have convergent validity (Chen & Wang, 2011)². Therefore, the scale connotation and its related values are as follows.

**Animal Empathy Scale.** The Animal Empathy Scale used in this study was based on Paul (2000), who developed the scale from the Questionnaire Measure of Emotional Empathy formulated by Mehrabian and Epstein (1972). Subjects answered questions on their treatment of animals and feelings toward animals to measure their level of compassion toward animals. Four items remained after factor analysis. Results of the

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² Each question’s factor loading was near 0.5, although they should ideally be greater than 0.7. A CR greater than 0.7 indicates superior reliability but a value between 0.6 and 0.7 is acceptable, whereas an AVE greater than 0.5 is acceptable (Hair, Black, Babin, & Anderson, 2009, pp. 677-678). The test model’s standards for goodness-of-fit are the following: The smaller the chi-square value the better. The chi-square/df. should be between 1 and 5. The GFI, the AGFI, and CFI should be greater than 0.9. The RMR must be smaller than 0.08, and the RMSEA should be smaller than 0.08 (Chen & Wang 2011).
structural equation modeling (SEM) analysis are as follows. The overall chi-square value was 2.68, the chi-square/df. was 1.34, the degree of freedom was 2, the comparative fit index (CFI) was 0.998, the goodness-of-fit index (GFI) was 0.995, the adjusted goodness of fit index (AGFI) was 0.977, the root mean square error of approximation (RMSEA) was 0.034, and the root means square residual (RMR) was 0.012. The model’s goodness-of-fit was excellent: The CR was 0.790, and the AVE was 0.486, which was near the 0.5 standard. Factor loadings were all greater than 0.5, which indicate good convergent validity.

**Ethics Exhaustion Scale.** Although veterinarian psychologist, Dennis (2013), proposed the concept of ethics exhaustion, no scale has been developed for its quantitative measurement. Thus, this study chose the short-version “Moral Disengagement” Scale (Moore, Detert, Treviño, Baker, & Mayer, 2012), where moral disengagement and ethics exhaustion are very similar concepts. Dennis (2013) proposed two associated phenomena closely linked to ethics exhaustion. First, the agent facing ethics exhaustion uses moral justification to assuage their guilt. Second, the agent facing ethics exhaustion yields to authority at the expense of their values. Based on these two associated phenomena, three appropriate questions were chosen for this scale (see Appendix). The questionnaire was also slightly revised to match the subject (animals). In the SEM results after factor analysis, the CR was 0.727 and the AVE was 0.491, which were close to the 0.5 standard. The factor loadings were all close to or greater than 0.5, which indicate good convergent validity.

**Discretionary Effort Scale.** In this study, the eight questions used to measure discretionary effort were referenced and translated from the questions formulated by Gould-Williams (2003). After factor analysis, five questions remained. The SEM analysis results were as follows. The overall chi-square value was 14.468, chi-square/df. was 2.894, degree of freedom was 5, CFI was 0.981, GFI was 0.981, AGFI was 0.944, and RMSEA was 0.079. The RMR was 0.018, the goodness-of-fit was excellent, and the CR was 0.83. The AVE was also 0.496, which was close to the 0.5 standard and indicated good convergent validity.

**Compassion Fatigue Scale.** This study translated the questionnaire developed in Adams, Figley, and Boscaino (2008) to develop the Compassion Fatigue Short Scale. Small revisions were made to match the subject of compassion (animals). This questionnaire divided compassion fatigue into job burnout and secondary traumatic stress as the secondary measuring construct. After factor analysis, 11 questions remained. The SEM analysis results were as follows. The overall chi-square value was 99.343, chi-square/df. was 2.31, degree of freedom was 43, CFI was 0.969, GFI was 0.948, AGFI was 0.92, RMSEA was 0.066, and RMR was 0.047. The model goodness-of-fit was excellent. The job burnout CR was 0.87 and the AVE was 0.533. The secondary trauma CR was 0.901 and the AVE was 0.646. The factor loadings for all the questions were greater than 0.5, which indicated good convergent validity.

**Organizational Support Scale.** This study used the scale developed by Eisenberger, Cummings, Armeli, and Lynch (1997). After factor analysis, four questions remained. The SEM analysis results were as follows. The overall chi-square value was 7.446, chi-square/df. was 3.723, degree of freedom was 2, CFI was 0.993, GFI was 0.987, AGFI was 0.937, RMSEA was 0.095, and RMR was 0.013. The model goodness-of-fit was excellent. The CR was 0.908 and the AVE was 0.713. Factor loadings were all greater than 0.5, which indicated good convergent validity.

**Workload Scale.** This study used the Subjective Workload Assessment Technique (Reid & Nygren, 1988) to design the scale context. The question items were formulated based on the employee’s workload, which was divided into: (a) time load; (b) mental effort load; and (c) psychological stress load. All three questions were
retained after factor analysis. The CR was 0.947 and the AVE was 0.857. Factor loadings were all greater than 0.5, which indicated good convergent validity.

A five-point Likert scale was used for all questionnaires in this study (1= “Strongly disagree”, 2 = “Disagree”, 3 = “Neutral”, 4 = “Agree”, and 5 = “Strongly agree”). The Appendix details the scale data.

**Questionnaire Survey and Analysis**

**Research participants.** In this study, 340 government employees responsible for animal protection work in Taiwan’s various local governments participated in the study. A general survey method was used, and the questionnaires were issued between July 15, and September 15, 2017. After the questionnaires were printed, one copy of each questionnaire was placed in individual envelopes and given to contact windows at each agency for distribution. To recover the questionnaires, the respondents were asked to place completed questionnaires in the attached envelope and return them to the contact window. This reduced the privacy concerns of the participants when filling out the questionnaire. Before the start of the study, participants were informed of the study objective and how the collected data would be used. Subjects were not required to fill out the questionnaire if they were unwilling to participate. In total, 302 questionnaires were recovered from the 340 participants.

**Data analysis.** After data were collected, this study used SPSS 20.0 and AMOS 21.0 to conduct data statistics. Inspection indicates that the missing data in this study’s dataset were missing at random. Therefore, regression imputation was used to replace the missing values.

This study uses SEM to analyze the effects that compassion toward animals have on ethics exhaustion and discretionary effort. The analysis verified whether compassion fatigue has a mediating effect on the two relationships of first, compassion toward animals and ethics exhaustion and second, compassion toward animals and discretionary effort. The current mainstream method for testing mediation effects is the Sobel test developed by Sobel (1982) and used in Baron and Kenny (1986). However, Baron and Kenny focused on the causal steps connecting the independent variables to the dependent variables, where these steps are considered a necessary condition for demonstrating mediation in the test. If the hypothesis is not established in a given path, then the test for mediating effects is stopped. However, indirect effects can go undetected if the test is stopped (Hayes, 2009, p. 413; Rucker, Preacher, Tormala, & Petty, 2011, p. 361; Hayes & Preacher, 2014, p. 452; Hayes, 2018, p. 114). As a remedy, scholars have used repeat sampling bootstrapping (Hayes, 2009, p. 411; Hayes & Preacher, 2014), where a significant indirect effect is indicated by the inclusion of 0 in the 95% confidence interval (CI).

**Research Result**

**Model Pretest Results**

**Model definition.** This study hypothesized that organizational support and workload mediates compassion fatigue. Thus, this study used two confirmatory-factor models and the two-stage least square method of Kline (2011) to test the correlation between internal and external variables. The test results were as follows. The chi-square values were 574.310 and 532.035, chi-square/df. values were 1.859 and 1.873, degree of freedom values were 309 and 284, CFI were 0.933 and 0.940, GFI were 0.878 and 0.883, AGFI were 0.851 and 0.855, RMSEA were 0.053 and 0.054, and RMR were 0.050 and 0.052, respectively. The correlation coefficient’s absolute values were all less than 0.7. The various variables exhibit a medium to low correlation and exhibited
Testing for offending estimate. The standards used for testing the offending estimate generally include: (1) the existence of a negative error variance (Kolenikov & Bollen, 2012); (2) a standardized regression weighting coefficient smaller than 0.95; and (3) a significant \( t \) value and standard error that is not large (Hwang, 2002; Chen & Wang, 2011). If these three conditions are satisfied, the estimated parameter is within an acceptable scope, and an appropriate estimate can be obtained (Hwang, 2002). This study’s error variances were all positive and satisfied significance standards, the regression weighting coefficients were all smaller than 0.95, the \( t \) value was significant, and the standard error was not large. Therefore, the offending estimate problem was absent in this study’s model parameters.

Tests for multivariate normality. When the data contain many continuous variables, the normality assumption must be verified (Tabachnick & Fidell, 2007; Chen & Wang, 2011, pp. 660-662). Normality is divided into the satisfaction of univariate and multivariate normality. In theory, the analysis can continue once both have been satisfied. However, because the SEM had a large sample, the model’s chi-square value was likely to be inflated, thus erroneously indicating a poor goodness-of-fit (Newsom, 2012; Fisher & King 2010, p. 46). To solve this problem, maximum likelihood estimation (MLE) and Bollen-Stine bootstrap estimation were conducted 2,000 times for calibration. Generally, if the Bollen-Stine \( p \) value is 0 (that is, the probability of the next model having a poorer goodness-of-fit is 0), follow-up analysis can be conducted even though the data do not satisfy the assumption of multivariate normality.

This study hypothesized that organizational support and workload affects the mediating effect of compassion fatigue. Therefore, a multivariate normal test was conducted. The skewness and kurtosis values indicated that the data followed the univariate but not multivariate normal distribution. Thus, calibration must be conducted with MLE and the Bollen-Stine bootstrap estimation. After corrections, the probability of the following model having a poor goodness-of-fit was 0; follow-up analysis can thus be conducted. After correction, the overall model goodness-of-fit results for the models of first, organizational support affecting compassion fatigue and second, workload affecting compassion fatigue are as follows. For the first and second models, the values for chi-square/df. were 1.24 and 1.23, CFI were 0.98 and 0.95, GFI were 0.91 and 0.92, AGFI were 0.89 and 0.90, and RMSEA were 0.03 and 0.03, respectively. Thus, the post-calibration model goodness-of-fit conformed to conventional standards and the assumption of multivariate normality. These data can serve as a resource for analysis.

Research Discovery

Variation between compassion and individual characteristics in government employees. This study’s participants exhibited above-average compassion toward animals. The overall average value for compassion was 3.46 points. As for demographic traits, those older than 51 years had the lowest compassion score (average value = 3.30), and women had the highest compassion score (average value = 3.59). With respect to the compassion scale, the average reply for each question was between neutral (three points) and agree (four points).
points). This indicates that in this study, the compassion of government employees was generally above average.

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type (number)</th>
<th>Mean</th>
<th>SD</th>
<th>Test value</th>
<th>p-value</th>
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<tbody>
<tr>
<td>Sexuality</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. Male (191)</td>
<td>3.34</td>
<td>0.536</td>
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<td>4.388</td>
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<tr>
<td>2. Female (179)</td>
<td>3.59</td>
<td>0.565</td>
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</tbody>
</table>

Notes: Source: Data compiled in this study; * p < 0.05; ** p < 0.01; *** p < 0.001.

Furthermore, a $t$ test and $F$ test indicated a significant difference between genders with respect to compassion (specifically in the correlation between compassion and basic characteristics). Specifically, women had higher compassion than men (see Table 1). Government employees of different ages and seniorities in animal protection work exhibited no difference between them in their compassion toward animals (see Table 2). Thus, Hypothesis 1 is verified, but Hypotheses 2 and 3 were not.

**Effect of compassion toward animals on organizational behavior.** Hypotheses 4 and 5 were formulated to understanding the effect of compassion toward animals on discretionary effort and ethics exhaustion. According to Table 3, the standardized estimates of compassion in relation to discretionary effort and ethics exhaustion were 0.267 and -0.179, respectively (both $p < 0.05$). Therefore, Hypotheses 4 and 5 were verified. Compassion toward animals can increase discretionary effort and mitigate ethics exhaustion.

**How compassion fatigue mediates the effect of compassion toward animals on organizational behavior.** Hypotheses 6 and 7 were formulated to understand how compassion toward animals affects discretionary effort and ethics exhaustion, after mediation by compassion fatigue. In this study, bootstrapping settings were such that sampling was repeated 1,000 times. The 95% CI of standardization related coefficients was estimated. This study used the two methods provided by AMOS for CI estimation: the percentile and bias-corrected percentile method; Table 4 presents the results. According to the results, the CI for Hypothesis 6 included 0, thus indicating no mediating effect of compassion fatigue. However, the 95% CI for Hypothesis 7’s path did not include 0, thus indicating the mediating effect of compassion fatigue. Therefore, high compassion toward animals produced high discretionary effort, with no relation to compassion fatigue. However, the ability of high compassion toward animals to alleviate ethics exhaustion was weakened by compassion fatigue.

Table 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type (number)</th>
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<th>SD</th>
<th>F</th>
<th>p-value</th>
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<td>Age</td>
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<td>1. under 30 (102)</td>
<td>3.55</td>
<td>0.570</td>
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<td>2. 31-40 (142)</td>
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<td>0.542</td>
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<td>2.196</td>
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<td>3. 41-50 (75)</td>
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<tr>
<td>4. over 51 (51)</td>
<td>3.30</td>
<td>0.437</td>
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<tr>
<td>1. under 1 (78)</td>
<td>3.54</td>
<td>0.637</td>
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<td>2.1-3 (129)</td>
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<td>0.569</td>
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<td>3. 3-6 (83)</td>
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<td>0.516</td>
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<td>4. 6-9 (33)</td>
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<td>5. over 9 (45)</td>
<td>3.45</td>
<td>0.454</td>
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</table>

Notes: Source: Data compiled in this study; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. 
Table 3
Effect of Compassion on Ethics Exhaustion and Discretionary Effort and Path Coefficient, With Compassion Fatigue as the Mediator

<table>
<thead>
<tr>
<th>Path</th>
<th>Standardized estimate</th>
<th>Non-standardized estimate</th>
<th>S. E.</th>
<th>C.R. (t-value)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy → Compassion fatigue</td>
<td>0.274</td>
<td>0.485</td>
<td>0.073</td>
<td>3.739</td>
<td>***</td>
</tr>
<tr>
<td>Empathy → Discretionary effort</td>
<td>0.267</td>
<td>0.374</td>
<td>0.065</td>
<td>4.085</td>
<td>***</td>
</tr>
<tr>
<td>Compassion → Ethics exhaustion</td>
<td>-0.179</td>
<td>-0.267</td>
<td>0.066</td>
<td>-2.721</td>
<td>0.007</td>
</tr>
<tr>
<td>Compassion fatigue → Discretionary effort</td>
<td>-0.169</td>
<td>-0.134</td>
<td>0.099</td>
<td>-1.709</td>
<td>0.087</td>
</tr>
<tr>
<td>Compassion fatigue → Ethics exhaustion</td>
<td>0.278</td>
<td>0.234</td>
<td>0.107</td>
<td>2.587</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Notes. Source: Data compiled in this study; * p < 0.05; ** p < 0.01; *** p < 0.001.

Table 4
CI table With Compassion Fatigue as the Mediator

<table>
<thead>
<tr>
<th>Path</th>
<th>Estimate</th>
<th>Bias-corrected Lower</th>
<th>Bias-corrected Upper</th>
<th>Percentile Lower</th>
<th>Percentile Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy → Compassion fatigue → Discretionary effort</td>
<td>-0.046</td>
<td>-0.188</td>
<td>0.019</td>
<td>-0.215</td>
<td>0.017</td>
</tr>
<tr>
<td>Empathy → Compassion fatigue → Ethics exhaustion</td>
<td>0.076</td>
<td>0.005</td>
<td>0.292</td>
<td>0.005</td>
<td>0.270</td>
</tr>
</tbody>
</table>

Note. Source: Data compiled in this study.

For the model goodness-of-fit, the mediation model had the following values. An overall chi-square of 428.779, chi-square/df. of 1.923, degree of freedom of 223, CFI of 0.933, GFI of 0.892, AGFI of 0.866, RMSEA of 0.055, and RMR of 0.062. The GFI and AGFI did not satisfy the standard of being above 0.9, but satisfied that of being above 0.8, as recommended by Doll, Xia, and Torkzadeh (1994). The remaining fitness indexes all satisfied SEM standards, indicating goodness-of-fit in the model.

Table 5
Path Coefficients of the Effects of Compassion on Ethics Exhaustion and Discretionary Effort (for the Effect of Organizational Support on Compassion Fatigue And With Compassion Fatigue as the Mediator)

<table>
<thead>
<tr>
<th>Path</th>
<th>Standardized estimate</th>
<th>Non-standardized estimate</th>
<th>S. E.</th>
<th>C.R. (t-value)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy → Compassion fatigue</td>
<td>0.397</td>
<td>0.454</td>
<td>0.076</td>
<td>5.196</td>
<td>***</td>
</tr>
<tr>
<td>Empathy → Discretionary effort</td>
<td>0.322</td>
<td>0.448</td>
<td>0.068</td>
<td>4.725</td>
<td>***</td>
</tr>
<tr>
<td>Empathy → Ethics exhaustion</td>
<td>-0.195</td>
<td>-0.279</td>
<td>0.067</td>
<td>-2.916</td>
<td>0.004</td>
</tr>
<tr>
<td>Organizational support → Compassion fatigue</td>
<td>-0.304</td>
<td>-0.417</td>
<td>0.055</td>
<td>-5.551</td>
<td>***</td>
</tr>
<tr>
<td>Compassion fatigue → Discretionary effort</td>
<td>-0.266</td>
<td>-0.324</td>
<td>0.079</td>
<td>-3.355</td>
<td>***</td>
</tr>
<tr>
<td>Compassion fatigue → Ethics exhaustion</td>
<td>0.237</td>
<td>0.297</td>
<td>0.083</td>
<td>2.853</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Notes. Source: Data compiled in this study; * p < 0.05; ** p < 0.01; *** p < 0.001.

Increasing organizational support cannot eliminate the mediating effect of compassion fatigue. Hypotheses 8 and 10 were formulated to understand when organizational support affects compassion fatigue, how compassion toward animals (after mediation by compassion fatigue) affects discretionary effort and ethics exhaustion. As detailed in Table 5, the standardized estimations for compassion with respect to discretionary effort, ethics exhaustion, and organizational support on compassion fatigue were 0.322, -0.195, and -0.304, respectively (all p < 0.05) (see Figure 2). This model had the following values. The overall chi-square was 639.953, chi-square/df. was 2.025, degree of freedom was 223, CFI was 0.919, GFI was 0.866, AGFI was
0.839, RMSEA was 0.058, RMR was 0.076, and the GFI and AGFI still satisfied the standards stipulated by Doll et al. (1994). Thus, goodness-of-fit was present in this model.

Bootstrapping results are presented in Table 6. The 95% CIs of Hypotheses 8 and 10 did not include 0, thus indicating a mediating effect. Specifically, the use of organizational support for compassion-fatigue relief did not eliminate the mediating effect of compassion fatigue. The high discretionary effort generated by high compassion toward animals will still be weakened by compassion fatigue. Compassion fatigue also weakens the mitigative effect that high compassion toward animals has on ethics exhaustion.

Table 6

<table>
<thead>
<tr>
<th>Path</th>
<th>Estimate</th>
<th>Bias-corrected</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compassion → Compassion fatigue → Discretionary effort</td>
<td>-0.106</td>
<td>-0.293</td>
<td>-0.256</td>
</tr>
<tr>
<td>Compassion → Compassion fatigue → Ethics exhaustion</td>
<td>0.094</td>
<td>0.002</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Note. Source: Data compiled in this study.

*Figure 2.* Effect of organizational support on ethics exhaustion and discretionary effort, with compassion fatigue as the mediator.

**Decreasing workload can eliminate the mediating effect of compassion fatigue.** Hypotheses 9 and 11 were formulated to understand when organizational support affects compassion fatigue, how compassion toward animals affects discretionary effort and ethics exhaustion, after mediation by compassion fatigue. The
standardized estimates for compassion in relation to discretionary effort and ethics exhaustion were 0.240 and -0.123, respectively (see Table 7). The standardized estimate for workload in relation to compassion fatigue was 0.473. All p values were < 0.05 (see Figure 3). This model had the following values. The overall chi-square was 613.989, chi-square/df. was 2.11, degree of freedom was 291, GFI was 0.922, AGFI was 0.869, RMSEA was 0.061, and RMR was 0.089. The GFI and AGFI satisfied the standards stipulated by Doll et al. (1994). The RMR was also close to the conventional threshold, indicating goodness-of-fit in this model.

Table 7
**Path Coefficients of the Effects of Compassion on Ethics Exhaustion and Discretionary Effort (for the Effect of Workload on Compassion Fatigue and With Compassion Fatigue as the Mediator)**

<table>
<thead>
<tr>
<th>Path</th>
<th>Standardized estimate</th>
<th>Non-standardized estimate</th>
<th>S. E.</th>
<th>C.R. (t-value)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy → Compassion fatigue</td>
<td>0.005</td>
<td>0.004</td>
<td>0.061</td>
<td>0.084</td>
<td>0.933</td>
</tr>
<tr>
<td>Empathy → Discretionary effort</td>
<td>0.240</td>
<td>0.329</td>
<td>0.055</td>
<td>4.347</td>
<td>***</td>
</tr>
<tr>
<td>Empathy → Ethics exhaustion</td>
<td>-0.123</td>
<td>-0.175</td>
<td>0.054</td>
<td>-2.292</td>
<td>0.022</td>
</tr>
<tr>
<td>Workload → Compassion fatigue</td>
<td>0.473</td>
<td>0.511</td>
<td>0.051</td>
<td>9.335</td>
<td>***</td>
</tr>
<tr>
<td>Compassion fatigue → Discretionary effort</td>
<td>-0.095</td>
<td>-0.177</td>
<td>0.035</td>
<td>-2.757</td>
<td>0.006</td>
</tr>
<tr>
<td>Compassion fatigue → Ethics exhaustion</td>
<td>0.063</td>
<td>0.120</td>
<td>0.032</td>
<td>1.943</td>
<td>0.052</td>
</tr>
</tbody>
</table>

*Notes: Source: Data compiled in this study; * p < 0.05; ** p < 0.01; *** p < 0.001.*

**Figure 3.** Effect of workload on compassion fatigue, with compassion fatigue as the mediator (Source: Data compiled in this study).
Table 8

<table>
<thead>
<tr>
<th>Path</th>
<th>Estimate</th>
<th>Bias-corrected Lower</th>
<th>Bias-corrected Upper</th>
<th>Percentile Lower</th>
<th>Percentile Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy → Compassion fatigue → Discretionary effort</td>
<td>0</td>
<td>-0.034</td>
<td>0.012</td>
<td>-0.035</td>
<td>0.012</td>
</tr>
<tr>
<td>Empathy → Compassion fatigue → Ethics exhaustion</td>
<td>0</td>
<td>-0.009</td>
<td>0.050</td>
<td>-0.008</td>
<td>0.054</td>
</tr>
</tbody>
</table>

Note. Source: Data compiled in this study

Table 8 presents the bootstrap results. The 95% CIs of Hypotheses 9 and 11 contained 0, which indicated no mediating effect. Specifically, when decreases in workload eliminated compassion fatigue, the mediating effect of compassion fatigue was eliminated. Thus, the high discretionary effort produced by high compassion toward animals was no longer affected by compassion fatigue. The mediating effect that ethics exhaustion had on high compassion toward animals was also no longer affected by compassion fatigue.

**Research Discovery and Recommendations**

**Research Discovery**

**Distinguishing motivation sources to better manage government employees.** Traditional principal-agent problems are caused by self-interested government employees. In particular, a structure of information-asymmetry produces laziness and behavior that mislead customer decisions. Economists have designed the “performance guidance strategy”, where contract design is used to steer self-interested individuals toward prosocial behavior. However, this study demonstrated that although gate-keepers (particularly government employees in animal protection) also exhibited negative organizational behavior with respect to administrative ethics and performance, the cause of such negative behavior differed from those of the agents in principal-agent theory. Such negative behavior was caused by compassion rather than self-interest. Although compassion can increase discretionary effort and reduce ethics exhaustion, compassion-induced compassion fatigue causes negative organizational behavior. Thus, emotion-relief strategies must be implemented to remedy compassion fatigue. This discovery reminds us that in managing a bureaucracy, management strategies must be adapted to the differing motivations underlying negative organizational behavior, where such motivations must first be distinguished.

**The insidiousness of compassion fatigue.** This study demonstrated that compassion-induced discretionary effort is not mediated by compassion fatigue. However, compassion mitigates ethics exhaustion through compassion fatigue, which weakens this mitigation. This relationship suggests that when faced with compassion fatigue dilemma, government employees in animal protection will still attempt to complete their tasks. However, in doing so, their care rendered to animals potentially results in ethics exhaustion. Thus, compassion fatigue has insidious effects in an organization. Specifically, compassion fatigue results in not only in laziness and secondary trauma to the agent but also harm to the animals under the agent’s care. This harm is insidious because discretionary effort does not decrease, which results in the problem going undetected, worsening, and finally erupting into catastrophe.

**Gate-keepers encounter more paradoxical scenarios than agents.** Compared to the structure of problems faced by agents, the gate-keeper involves more complex decisional dilemmas. Because of compassion and professional ethics, animal protection personnel have a moral obligation to the animals (including the
provision of care). However, when necessary, these gate-keepers must also act with the calculation of an agent. Specifically, these gate-keepers must sometimes sacrifice the vulnerable animals under their care for the public good, such as euthanizing animals in a crowded shelter. When the subject of compassion (animals) is traded off for the public good, if the gate-keeper’s compassion has been weakened by compassion fatigue, ethics exhaustion can result. Conversely, if the agent acts according to their compassion and protects their subject of compassion (the animals), ethics exhaustion can be prevented. However, this disregard of the public good can damage the fundamental principle of public trust that government employees must abide by, resulting in dereliction of duty by the employee. Therefore, the moral dilemma faced by administrative gate-keepers is more severe than that faced by administrative agents.

**Studies and Policy Recommendations**

**Understanding demographic variables that affect the compassion of government employees.** In this study, the compassion of government employees in animal protection was fairly high (at an average of 3.46 out of 5). Previous studies have demonstrated that compassion can increase work performance in a service-oriented organization and result in greater enthusiasm toward the service subject. This causal relationship has been verified in this study. Compassion increases discretionary effort and suppresses the production of ethics exhaustion. Although previous studies have determined that women, older people, and people with more seniority in the service organization have higher levels of compassion, the results of this study demonstrate that only women have higher compassion than men. Employees of different ages and work experience did not differ with respect to compassion. The reasons for this must be explored further.

**Policy recommendations for the government when faced with compassion fatigue.** Compassion toward animals increases discretionary effort and reduces ethics exhaustion. To improve the government employee’s work performance, organizations must identify compassionate government employees in animal protection because such employees are susceptible to compassion fatigue. In identifying these employees, methods for relieving compassion fatigue can be formulated. This, however, does not entail an urgent need to invest considerable resources in such methods of relief. The more important task is identifying employees who are susceptible to compassion fatigue (such as female employees), determine the factors affected by compassion fatigue (such as ethics exhaustion), and ensure that these are problems that the organization wishes to solve before the appropriate strategies are adopted (such as reducing workload). In knowing before acting, resources can be invested prudently.

**References**


Dobkin, P. L., & Hutchinson, T. A. (2013). Teaching mindfulness in medical school: Where are we now and where are we going? *Medical education, 47*(8), 768-779.


### Appendix: Factor Analysis, and Reliability Result of All Dimension Scale

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Items</th>
<th>Parameter significance estimation</th>
<th>Standardized factor loading</th>
<th>Item reliability</th>
<th>Composite reliability</th>
<th>Convergent validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unstd. S.E.</td>
<td>t-value</td>
<td>P</td>
<td>Std. SMC</td>
<td>CR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal empathy</td>
<td>Sad films about animals often leave me with a lump in my throat.</td>
<td>1.000</td>
<td></td>
<td>0.620</td>
<td>0.384</td>
<td>0.790</td>
</tr>
<tr>
<td></td>
<td>I get very angry when I see animals being ill treated.</td>
<td>0.899</td>
<td>0.099</td>
<td>0.075</td>
<td>***</td>
<td>0.719</td>
</tr>
<tr>
<td></td>
<td>Pets have a great influence on my moods.</td>
<td>0.965</td>
<td>0.108</td>
<td>0.960</td>
<td>***</td>
<td>0.702</td>
</tr>
<tr>
<td></td>
<td>Seeing animals in pain upsets me.</td>
<td>0.978</td>
<td>0.106</td>
<td>0.207</td>
<td>***</td>
<td>0.742</td>
</tr>
<tr>
<td>Ethics exhaustion</td>
<td>Considering the goal of our organization, it is hardly a sin to degrade animal welfare a bit.</td>
<td>1.000</td>
<td></td>
<td>0.416</td>
<td>0.173</td>
<td>0.727</td>
</tr>
<tr>
<td></td>
<td>People should not be held accountable for treating animals wrongly when they were just doing what an authority figure told them to do.</td>
<td>1.684</td>
<td>0.261</td>
<td>6.460</td>
<td>***</td>
<td>0.706</td>
</tr>
<tr>
<td></td>
<td>People cannot be blamed for treating animals that are technically wrong when all their colleagues are doing it too.</td>
<td>2.019</td>
<td>0.370</td>
<td>5.465</td>
<td>***</td>
<td>0.896</td>
</tr>
<tr>
<td>Discretionary effort</td>
<td>I help new workers, even when not required to do so.</td>
<td>1.000</td>
<td></td>
<td>0.658</td>
<td>0.433</td>
<td>0.830</td>
</tr>
<tr>
<td></td>
<td>I stay late if necessary to help out.</td>
<td>1.444</td>
<td>0.144</td>
<td>10.011</td>
<td>***</td>
<td>0.706</td>
</tr>
<tr>
<td></td>
<td>I make suggestions for improvements.</td>
<td>1.100</td>
<td>0.119</td>
<td>0.270</td>
<td>***</td>
<td>0.640</td>
</tr>
<tr>
<td></td>
<td>I volunteer for things that are not part of the job.</td>
<td>1.507</td>
<td>0.141</td>
<td>10.680</td>
<td>***</td>
<td>0.775</td>
</tr>
<tr>
<td></td>
<td>I do not avoid extra duties and responsibilities.</td>
<td>1.328</td>
<td>0.129</td>
<td>10.307</td>
<td>***</td>
<td>0.734</td>
</tr>
<tr>
<td>Burn out</td>
<td>I have had flashbacks connected to my animals.</td>
<td>1.000</td>
<td></td>
<td>0.662</td>
<td>0.438</td>
<td>0.870</td>
</tr>
<tr>
<td></td>
<td>I experience troubling dreams similar to those of an animal of mine.</td>
<td>1.051</td>
<td>0.072</td>
<td>14.596</td>
<td>***</td>
<td>0.835</td>
</tr>
<tr>
<td></td>
<td>I have experienced intrusive thoughts after working with an especially difficult animal.</td>
<td>1.074</td>
<td>0.080</td>
<td>13.445</td>
<td>***</td>
<td>0.774</td>
</tr>
<tr>
<td></td>
<td>I have suddenly and involuntarily recalled a frightening experience while working with an animal.</td>
<td>1.113</td>
<td>0.075</td>
<td>14.767</td>
<td>***</td>
<td>0.845</td>
</tr>
<tr>
<td></td>
<td>I am losing sleep over an animal’s traumatic experiences.</td>
<td>1.001</td>
<td>0.071</td>
<td>14.182</td>
<td>***</td>
<td>0.813</td>
</tr>
<tr>
<td>Compass fatigue</td>
<td>My organization strongly considers my goals and values.</td>
<td>1.000</td>
<td></td>
<td>0.797</td>
<td>0.635</td>
<td>0.908</td>
</tr>
<tr>
<td></td>
<td>Help is available from my organization when I have a problem.</td>
<td>1.140</td>
<td>0.069</td>
<td>16.557</td>
<td>***</td>
<td>0.853</td>
</tr>
<tr>
<td></td>
<td>My organization cares about my opinions.</td>
<td>1.124</td>
<td>0.064</td>
<td>17.547</td>
<td>***</td>
<td>0.896</td>
</tr>
<tr>
<td></td>
<td>My organization would forgive an honest mistake on my part.</td>
<td>1.013</td>
<td>0.064</td>
<td>15.940</td>
<td>***</td>
<td>0.828</td>
</tr>
<tr>
<td>Perceived organizational support</td>
<td>I have too much work that I cannot deal with them properly.</td>
<td>1.000</td>
<td></td>
<td>0.904</td>
<td>0.817</td>
<td>0.947</td>
</tr>
<tr>
<td></td>
<td>There are too much job to be done but I don’t have enough time to solve it.</td>
<td>1.028</td>
<td>0.035</td>
<td>29.494</td>
<td>***</td>
<td>0.974</td>
</tr>
<tr>
<td></td>
<td>I spend most of my time to Catch up with progress.</td>
<td>0.943</td>
<td>0.038</td>
<td>24.716</td>
<td>***</td>
<td>0.897</td>
</tr>
</tbody>
</table>

Notes: Source: Data compiled in this study; * p < 0.05; ** p < 0.01; *** p < 0.001.