Article

Exploring the Effects of Multiple Dimensions of Organizational Justice on Correctional Staff Job Stress

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Abstract

The primary purpose of the current study was to assess the role of organizational justice in understanding prison staff job stress. Specifically, the authors surveyed 322 correctional employees across two prisons located in Guangzhou, China to explore the effects of distributive, procedural, informational, and interpersonal justice on work stress. Results from ordinary least squares analysis revealed significant contributions from three dimensions of organizational justice in explaining stress from work among prison workers. Prison personnel who had higher perceptions of interpersonal, distributive, and procedural justice in the organization were less likely to report being stressed. In addition, men were more likely to report higher levels of work tension than women.

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Introduction

Prisons across the globe rely on staff to carry out a myriad of duties and tasks. Workers are an expensive resource for correctional organizations, but they are also the most important ones (Tewksbury & Higgins, 2006). Employees undeniably affect prison operations; conversely, the prison work environment impacts them (Elechi et al., 2018; Higgins et al., 2013). Noting that prisons constitute a unique workplace, Armstrong and Griffin (2004) pointed out that "few other organizations are charged with the central task of supervising and securing an unwilling and potentially violent population" (p. 577). Considering the importance and cost of employees, empirical research has examined how workplace variables affect correctional staff. A significant number of these studies have specifically examined the workplace variables that may be linked to job stress. The literature sometimes also uses the terms "work" or "occupational" instead of "job" and "tension" or "strain" instead of "stress" to refer to the same concept. As noted by Higgins et al. (2013), this research "suggests the importance of the need to study work stress in a correctional setting" (p. 349). As prison employment can be challenging, administrators should do everything in their power to reduce the work strain faced by these workers.

The correctional work environment is complex and has many different facets; organizational justice is one such facet (Boateng & Hsieh, 2019a, 2019b). Organizational justice refers to the perceptions of how the organization treats employees in terms of fairness (Cropanzano et al., 2007). Organizational justice is a multidimensional workplace concept, with the major types being distributive, procedural, informational, and interpersonal (Colquitt, 2001; Colquitt et al., 2001). Very few correctional justice and job stress studies have examined more than distributive and procedural justice. There is a need for new research that explores the effects of all four dimensions of organizational justice on job stress in order to gain a clearer picture of how these workplace variables impact staff. Past research to date has focused on U.S. correctional workers. There is a need to conduct research on correctional personnel internationally in order to gain a better understanding of the degree to which organizational justice exists and varies across countries. No published study could be found that specifically examined the association between the four types of organizational justice on Chinese correctional staff stress from work.

The People's Republic of China (henceforth China)is the most populous nation in the world and a major trading partner with many nations (World Factbook, 2020). Nevertheless, there has been limited research on Chinese prison employees published in Western journals, including whether and how organizational justice is related to work stress. The current exploratory study was undertaken to fill this void and to test the association between the four types of organizational justice and job stress. Conducting international research allows scholars to determine whether the effects of a workplace variable are universal (i.e., cuts across nations) or contextual (i.e., varies between cultures). Additionally, international studies can help narrow the gap between nations and build bridges so that information flows more freely (Cao & Cullen, 2001). As Jowell (1998) noted, "the importance and utility to social science of rigorous cross-national measures is incontestable. They help to reveal not only intriguing differences between countries and cultures, but also aspects of one's own country and culture that would be difficult or impossible to detect from domestic data alone" (p. 168).

Literature Review

Job Stress

Selye (1950), who is generally given credit for operationalizing the concept of stress, contended that long exposure to negative factors results in physiological stress (also termed tension or strain). Scholars, not limiting themselves to physiologic reactions, postulated that negative stimuli called stressors also resulted in negative psychological outcomes, such as psychological strain (Matteson & Ivancevich, 1987). The concept of occupational stress was developed out of this scholarship. While strain can occur in different life domains, such as relationships, family, and social life, employment-related tension is usually referred to as job stress (Neel, 2016). Job stress is typically defined as feelings of work-related psychological tension, frustration, strain, and distress, and this is the definition used for the current study (Cullen et al., 1985; Higgins et al., 2013). Stressors are the negative stimuli that often result in work tension. Positive stimuli can help buffer job strain, and a lack of the positive stimuli can become a stressor in and of itself (Demerouti & Bakker, 2011).

A significant reason for exploring the determinants of correctional employee work stress has been the detrimental effects of job tension. Among correctional staff, job stress has been associated with lower levels of work performance, sense of work accomplishment, life satisfaction, organizational commitment, and job satisfaction. Worker strain has also been

found to be associated with greater levels of mental health problems, physical problems, marital/family problems, job burnout, substance use, absenteeism, and even shortened life span (Cheek & Howard, 1984; Cheek & Miller, 1983; Dowden & Tellier, 2004; Finn, 1998; Lambert, 2004; Lambert et al., 2005a, 2005b; Stack & Tsoudis, 1997; Wells et al., 2009). For example, the suicide rate of correctional personnel is 39% higher than the general population's rate, and job stress is postulated to be a contributing factor (Kochanek et al., 2015). Additionally, the life expectancy of correctional staff is 10 to 12 years shorter than the general population, and job strain is seen as one of the major reasons for a shortened life span (Tracy, 2004; Woodruff, 1993).

Many correctional workplace variables have been linked to job stress. Role ambiguity, role conflict, role overload, work-family conflict, and perceived job dangerousness have all been associated with higher levels of correctional employee stress from work (Armstrong & Griffin, 2004; Castle & Martin, 2006; Cullen et al., 1985; Dowden & Tellier, 2004; Griffin, 2006; Liu et al., 2017; Triplett et al., 1996). Conversely, quality supervision, instrumental communication, job autonomy, job variety, and participation in decision-making have each been reported to result in lower correctional staff job stress (Brough & Williams, 2007; Dowden & Tellier, 2004; Lambert & Paoline, 2008; Otu et al., 2018; Slate & Vogel, 1997). The different types of organizational justice may influence correctional employee work tension.

Organizational Justice Views

Employees view organizational justice in terms of the fair and just manner in which organizations treat them (Boateng & Hsieh, 2019a, 2019b; Greenberg, 1987, 1990a, 1990b). Organizational justice is important for the effective functioning of an organization. Cropanzano et al. (2007) noted that organizational justice "is the glue that allows people to work together effectively" (p. 34). Skarlicki and Folger (1997) contended that "if organizational decisions and managerial actions are deemed unfair or unjust, the affected employees experience feelings of anger, outrage, and resentment" (p. 434). Organizational justice is a multidimensional concept, with the major types being distributive, procedural, and interpersonal, and informational justice (Boateng & Hsieh, 2019b; Colquitt & Greenberg, 2005; Lambert et al., 2007; Skarlicki & Folger, 1997).

Distributive justice emphasizes the views of the fairness of key organizational *outcomes* that affect employees (Boateng & Hsieh, 2019b; Greenberg, 1990a, 1990b; Lambert, 2003), including salary, benefits, evaluations, promotions, assignments, and discipline (Colquitt & Greenberg, 2005; Lambert et al., 2007). Procedural justice concerns the judgment that the

organizational *processes* and *procedures* used to reach distributive outcomes are fair and just (Boateng & Hsieh, 2019a; Colquitt et al., 2001; Greenberg, 1990a, 1990b; Lambert, 2003). Processes need to be open, consistent, and fair (Lambert et al., 2007; Skarlicki & Folger, 1997). Having fair processes is just as important as fair outcomes and may even be more important (Cropanzano et al., 2007; Lambert, 2003). For example, Landy et al. (1980) found that the perceived fairness of employee evaluation procedures was important to workers, regardless of whether the evaluations were positive or negative.

The original definition of interactional justice underscored workers being treated with respect; procedural and distributive matters are explained to them (Boateng & Hsieh, 2019a, 2019b; Skarlicki & Folger, 1997). Later, scholars came to view interactional justice as two separate concepts of interpersonal and informational justice (Colquitt, 2001; Colquitt et al., 2001; Cropanzano et al., 2007). The focus of interpersonal justice is that the organization treats workers with dignity and respect (Cropanzano et al., 2007; Lambert et al., 2007), including how supervisors and administrators treat workers (Colquitt & Greenberg, 2005; Colquitt et al., 2001). Interpersonal justice does not mean that workers always agree with supervisors and administrators, but rather that any disagreements are professional (Krehbiel & Cropanzano, 2000). Informational justice refers to the view that honest information and explanations are provided to explain procedures, processes, and decisions that affect staff(Cropanzano et al., 2007). In sum, distributive justice deals with the ends, procedural justice with the means, informational justice with the why, and interpersonal justice with how (Boateng & Hsieh, 2019a, 2019b; Colquitt & Greenberg, 2005; Colquitt et al., 2001).

The Effects of Organizational Justice on Correctional Staff

Past research has examined how organizational justice affects correctional personnel. Most of this research has included only distributive and procedural justice, and the bulk of this research has been conducted on US correctional staff. Both distributive and procedural justice have been observed to be positively related to US correctional worker job satisfaction and organizational commitment, as well as higher life satisfaction (Lambert, 2003; Lambert & Hogan, 2011; Lambert et al., 2019b). Likewise, these two types of organizational justice reduce the level of US employee negative work outcomes, such as strain-based work-family conflict, job burnout, and turnover intent (Lambert et al., 2010; Lambert et al., 2013a). A composite measure of organizational justice (i.e., distributive and procedural justice combined) had a significant relationship with organizational commitment among U.S.

correctional personnel (Lambert et al., 2002; Lambert et al., 2008). Among Chinese correctional staff, both distributive and procedural justice had positive effects on commitment (Lambert et al., 2018a). Both distributive and procedural justice were positively associated with Ghanaian correctional worker satisfaction (Boateng & Hsieh, 2019b).

Other research suggests that the effects of distributive and procedural differ on the outcome being studied. Procedural (but not distributive) justice increased organizational citizenship behaviors (i.e., prosocial behavior of going above what is expected at work), increased support for treatment of inmates, and decreased support of punishment for inmates among U.S. prison employees (Lambert & Hogan, 2013; Lambert et al., 2011). Procedural (but not distributive) justice was negatively associated with fear of being victimized (Taxman & Gordon, 2009) and positively associated with job involvement (Lambert et al., 2013b) for U.S. prison staff. Conversely, distributive (but not procedural) justice was reported to have positive association on the involvement and satisfaction of Chinese prison workers (Lambert et al., 2018a, 2018b). Among Ghanaian correctional personnel, only procedural justice had a significant association with commitment, while interactional and distributive justice had nonsignificant effects (Boateng & Hsieh, 2019b).

A few studies have specifically explored the connection of organizational justice views with correctional staff job tension. In two studies of U.S. correctional employees, distributive (but not procedural) justice had a negative effect on stress (Lambert et al., 2007, 2019a). Conversely, in another study involving U.S. workers, procedural (but not distributive justice) had a negative association with job strain (Lambert et al., 2006).

Research is limited in investigations that include organizational justice views beyond distributive and procedural justice. Among U.S. correctional employees, both interactional and distributive justice had negative effects on work stress, while procedural justice had nonsignificant effects (Lambert et al., 2019a). In a study of Ghanaian correctional workers that included measures of distributive, procedural, and interactional (i.e., a combination of interpersonal and informational justice) justice, only interactional justice had a negative effect on occupation stress (Boateng & Hsieh, 2019a). In another study of Ghanaian staff, interactional justice had nonsignificant effects on both satisfaction and commitment (Boateng & Hsieh, 2019b). Interpersonal and distributive justice, but not procedural justice, had positive effects on Chinese prison personnel job involvement (Lambert et al., 2018b).

Three primary conclusions can be gleaned from past research. First, studies are limited that examine the effects of organizational justice views on correctional workers, particularly their job stress; therefore, more studies are needed

to gain a clearer picture of how organizational justice views affect staff. Second, the vast majority of past studies have centered on U.S. personnel. Studying the effects of organizational justice on the work stress of correctional employees in a variety of nations is important, particularly Nonwestern countries. Research among prison workers in other nations will help determine whether the effects of organizational justice are universal or situational (i.e., varying by country). Third, very few studies have included measures of different types of organizational justice views other than distributive and procedural justice. Boateng and Hsieh (2019a) contended that emphasizing only distributive and procedural justice and ignoring the other types of justice views, could result in unclear and inaccurate results and conclusions. None of the limited studies to date have included measures of all four types of organizational justice views. As such, this study, which examined the effects of the four organizational justice views on the job strain of Chinese prison staff, was undertaken.

An Overview of Corrections in China

Immediately after the establishment of the People's Republic of China (PRC) in the late 1940s, the Bureau of Prisons was founded under the Ministry of Justice, which is responsible for corrections administration (Hill, 2006). China's current prison system in China was restructured under the Prison Law passed in 1994, and is based on two types of prison function: those incarcerating inmates with court-imposed fixed term sentences and those that hold juveniles. In China, corrections and punishment are administered under a concept known as reform through labor (*Láodòng Gǎizào* – 勞動改造*),* which is a system that involves the use of penal labor and prison farms in China. Like U.S. prisons, contemporary Chinese prisons stress the integration of punishment, incapacitation, treatment, education, and labor (Hill, 2006). China has five types of correctional facilities that serve different correctional purposes: prisons, detention houses, reform-through-labor institutions, re-education-through-labor institutions, and juvenile reformatories.

As many Western and non-Western countries, prison employees in China are government workers but, unlike other countries, these staff earn a good income when compared to the general Chinese working population (Wang & Kong, 2006). While most Chinese government employees work eight hours a day, prison staff have 12-h shifts and may be required to work overtime or on days off (Wang & Kong, 2006; Xing, 2014). Similar to many US prisons, Chinese inmates are generally less educated, more antisocial, and have higher rates of mental disorder and drug abuse compared to the general population (Jiang et al., 2018). Chinese prisons utilize military-like

hierarchical ranking system for personnel; however, there is not a clear division of labor related to custody, education, vocation, treatment, and support. All Chinese prison staff wear a uniform, regardless of job assignment (Hill, 2006; Jiang et al., 2018), and their job duties are typically decided and assigned at an individual level. Overall, jobs in Chinese prisons tend to be more multifaceted than those in many other countries (Hill, 2006; Hu et al., 2015; Wu, 2003).

There are about 300,000 employees in China's approximately 700 prisons, all of which are government-run (Shao, 2014). China's inmate population is nearly 1.65 million, of which about 107,000 are adult women and 13,000 are juveniles. The incarceration rate is 118 per 100,000 citizens (World Prison Brief, 2020). Comparatively, China's inmate-to-staff ratio of 5.7 to 1 is slightly higher than that found in the US (5.1 to 1), England (4 to 1), Japan (3.3 to 1), and Germany (3 to 1) (Hu et al., 2015). Unlike the US, which often classifies prisons based on security levels, Chinese prisons do not have a set security level; inmates with different custody levels and sentence lengths can be held in the same facility (Hill, 2006; Wu, 2003). There is a need to explore the extent to which views of organizational justice could impact Chinese prison workers' levels of strain. Specifically, how the four types of organizational justice views related to job tension among Chinese prison personnel remains unknown. This exploratory study was undertaken to examine these research questions.

Hypotheses

The current investigation seeks to provide a greater understanding of how organizational justice views are linked to work stress among Chinese prison workers. Specifically, how are distributive, procedural, interpersonal, and informational justice views linked to occupational stress among Chinese prison staff. The following four hypotheses were explored:

Hypothesis 1: Informational justice views were hypothesized to have a negative association with job stress. Being informed of changes that affect staff sends a message that they are valued and makes work easier and more pleasant. In the end, the affirmative psychological state from this type of organizational justice was expected to have positive effects, reducing work strain. Conversely, perceptions that informational justice is low can result in feeling frustrated and resentful, becoming a stressor, and adding to the stress from the job.

Hypothesis 2: Interpersonal justice views were hypothesized to have a negative relationship with job stress. Being treated with dignity and respect is usually satisfying, which should result in a positive psychological state. Being treated respectfully sends a message of being a valued part of the organization. Being treated in a discourteous and disrespectful fashion can be a negative and straining experience, which, over time, can add to the level of stress from work.

Hypothesis 3: Distributive justice views were hypothesized to be negatively associated with job stress. Perceiving salient organizational outcomes as fair and just should result in positive psychological feelings, which can buffer employees from the trying aspects of working in corrections, resulting in lower stress. Views that organizational outcomes are unfair and unjust are likely a stressor, resulting in frustration, anger, and resentment. Low views of distributive justice are likely to result in greater stress.

Hypothesis 4: Procedural justice views were hypothesized to have a negative association with work tension. Perceiving that organizational procedures and processes are fair and justice should result in correctional staff having positive psychological feelings, which can help buffer them from other sources of job stress. Feeling that the processes and procedures are unjust and unfair, likely will cause disgruntlement and psychological strain for prison personnel, becoming a stressor, and in turn, increasing the level of tension felt from work.

Method

Participants

Staff from two prisons located in Guangzhou were surveyed. At the time of the survey, one facility employed 280 workers members and housed approximately 1500 inmates; the second employed 160 employees and housed about 700 inmates. The two prisons were considered typical in China, holding adult offenders convicted for various types of offenses, mostly violent and property offenses such as robbery or fraud. The typical sentence was about five years of imprisonment. The survey was originally written in English, then translated to Chinese, and retranslated back to English by a different bilingual person to determine if there were translation problems. The survey was also pilot-tested among several Chinese staff to obtain feedback. After pretesting, a survey was administered to the 440 available personnel who were informed of the study's

purpose, that participation was voluntary, and that all responses would be anonymous. A total of 322 usable surveys were returned – a response rate of 70%.

Among the participants, the median age was 45, and ranged from 24 to 58. Approximately 54% were women. The median job tenure was 20 years, and ranged from 1 to 40 years. About 37% indicated that they had earned a Bachelor's or higher college degree. Across the sample, 64% worked at the first prison, and 36% worked at the second. According to human resource sources, the respondents at each prison appeared to be representative of each prison's overall staff population based on gender, age, tenure, and educational level.

Variables

Dependent variables. Job stress was the dependent variable. It was measured using four items from Cullen et al. (1985) and had a Cronbach's alpha of .86. The four items were: (1) "A lot of time my job makes me very frustrated or angry;" (2) "I am usually under a lot of pressure when I am at work;" (3) "When I'm at work I often feel tense or uptight;" and (4) "Most of the time when I'm at work I feel that I have much to worry about." The response options for the items were a 6-point Likert scale of strongly disagree (coded 1), disagree (coded 2), somewhat disagree (coded 3), somewhat agree (coded 4), agree (coded 5), and strongly agree (coded 6). The responses to these items were summed together to form an additive index.

Independent variables. Informational, interpersonal, distributive, and procedural justice were the independent variables of interest in the current study. The organizational justice measures are based on those from Lambert et al. (2007). Informational justice was measured by the following single item: "My supervisor gives me advance notice of changes." The response options for informational justice were the same as for work strain. The responses for the interpersonal, distributive, and procedural justice items were a 5-point scale of very unfair (coded 1), unfair (coded 2), somewhat fair (coded 3), fair (coded 4), and very fair (coded 5). Interpersonal justice was measured by the following single item: "How fair is the prison in treating you with respect and dignity?" Distributive justice was measured using the three items (e.g., "How fair has the prison been in rewarding you when you consider the amount of effort that you have put forth?" and "How fair has the prison been when you consider the responsibilities that you have at work?") and had a Cronbach's alpha value of .92. Procedural justice was also measured using three items (e.g., "How fair is the promotion process

here?" and "How fair is the process of the evaluation of your job performance at this prison?"). Procedural justice had a Cronbach's alpha value of .88. The responses for distributive and procedural justice were summed together to form additive indexes. Finally, measures for age, gender, tenure in the current position, educational level, and a dichotomous measure representing which prison the participant worked at were included more as control than explanatory variables. (For how the variables were coded, see Table 1).

Results

The study's descriptive statistics for the variables are found in Table 1. There appeared to be significant variation in the dependent and independent variables (i.e., none were constants). For the index variables, the Cronbach alpha values were .86 or higher, which is considered good.

A correlation matrix is presented in Table 2. Age, tenure, educational level, prison, and informational justice each had nonsignificant correlations with stress from the job. Gender, interpersonal justice, distributive justice, and

Table 1. Descriptive Statistics.

Variable	Description	Min	Max	Md	Mn	SD
Age	Age in continuous years	24	58	45	43.94	6.82
Gender	54% female (coded 0) 46% male (coded 1)	0	1	0	.46	.50
Tenure	Tenure in years in current position	.5	36	6	6.55	5.38
Educational Level	63% less than Bachelor (coded 0) 37% Bachelor or higher (coded 1)	0	1	0	.37	.48
Prison	64% from prison 1 (coded 1) 36% from prison 2 (coded 0)	0	1	1	.64	.48
Inform Justice	1 item measure	1	6	4	4.03	1.10
Inter Justice	1 item measure	1	5	4	3.44	0.94
Distributive Justice	3 item additive index, $\alpha = .92$	3	15	9	8.12	2.91
Procedural Justice	3 item additive index, $\alpha = .88$	3	15	9	8.98	2.81
Job Stress	4 item additive index, $\alpha = .86$	4	24	14	14.39	4.50

Note. Min stands for minimum value, Max for maximum value, Md for median value, Mn for mean value, SD for standard deviation value, Inform for informational, Inter for interpersonal, and α for Cronbach's alpha value. The number of participants was 322.

Table 2. Correlation Matrix for Study Variables.

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Age	1.00									
2. Gender	.12*	1.00								
3. Tenure	.38**	.10	1.00							
4. Educ Level	−.35**	−.12*	−.09	1.00						
5. Prison	.18**	.57**	−.01	−.10	1.00					
6. Inform Justice	−.11*	.00	−.04	−.01	−.05	1.00				
7. Inter Justice	−.06	−.03	.01	.05	−.12*	.24**	1.00			
8. Dist Justice	.02	−.12*	.07	.06	−.20**	.16**	.60**	1.00		
9. Proc Justice	−.06	−.08	.02	.00	−.16**	.22**	.32**	.51**	1.00	
10. Job Stress	−.01	.14*	−.01	−.05	.05	−.06	−.19**	−.42**	−.38**	1.00

Note. Educ stands for educational, Inform for informational, Inter for interpersonal, Dist for distributive, and Proc for procedural. See Table 1 for how the variables were coded and their descriptive statistics.
* ≤ .05 ** ≤ .01.

procedural justice had statistically significant negative correlations. On average, male workers reported higher levels of stress than their female counterparts. As hypothesized, interpersonal, distributive, and procedural justice had negative correlations, which means an increase in any of these variables were associated with less tension from the job. Distributive and procedural justice had the largest sized correlations, at least twice the size of the correlations for interpersonal justice and gender. Gender had the smallest sized correlation of the significant variables.

An ordinary least squares (OLS) regression equation was estimated with job strain as the dependent variable and age, gender, tenure, educational level, prison, and the four types of organizational justice as the independent variables. The results are reported in Table 3. Multicollinearity occurs when two or more variables share too large an overlap in variance, which can affect regression results; it is seen as a problem when Variance Inflation Factor scores (VIF) exceed 5 (Tabachnick & Fidell, 2013). Based on the VIF scores reported in Table 3, the highest VIF score was 3.26, and as such, multicollinearity was not seen as a problem. In addition, the issues of outliers, influential cases, normality, linearity and homoscedasticity of residuals, and independence of errors in the regression analysis were tested (Tabachnick & Fidell, 2013).

Table 3. Ordinary Least Squares (OLS) Regression Results of the Effects of Types of Organizational Justice on Job Stress among Chinese Prison Staff.

Variable	B	β	VIF
Age	−0.01	−.01	1.41
Gender	1.45	.16**	1.52
Tenure	−0.01	−.01	1.21
Educational Level	−0.29	−.03	1.18
Prison	−1.21	−.13*	1.58
Informational Justice	0.01	.01	1.09
Interpersonal Justice	−0.62	−.13*	1.74
Distributive Justice	−0.55	−.36**	3.19
Procedural Justice	−0.29	−.18*	3.26
F Value (df)	9.36 (9,312)**		
R-Squared	0.21		

Note. B represents the unstandardized regression coefficient, β the standardized regression coefficient, VIF the Variance Inflation Factor score, and (df) for degrees of freedom. See Table 1 for the coding and descriptive statistics of the variables.
*$p \leq .05$, **$p \leq .01$.

The independent variables as a group explained about 21% of the observed variance in the job stress index (i.e., R-Squared = .21). Age, tenure, and educational level had nonsignificant effects. Gender and prison had significant positive effect, which means that male staff, in general, reported higher levels of strain than their female counterparts. Prison had a negative effect, which means that staff at the second prison had lower average tension compared to personnel at the first prison. As predicted, informational, distributive, and procedural justice had significant negative effects on job stress. An increase in these three variables was associated with lower strain. Contrary to Hypothesis 1, informational justice had nonsignificant effects. The effects of the significant variables can be ranked on the absolute values of the standardized regression coefficients. Distributive justice had the largest sized effect, twice that of procedural justice and about three times the size of gender, interpersonal justice, and prison. Procedural justice had the second largest sized effect, followed by gender. Interpersonal justice and prison had the smallest sized effects.

Discussion and Conclusion

Within correctional settings, the dimensions of organization justice have largely been used to explain behavioral and attitudinal changes among prison staff. For instance, researchers have sought to answer critical questions related to employees' misconduct, satisfaction, and commitment by examining key components of organizational justice. Many scholars believe that a perception of organizational integrity and legitimacy among correctional workers may create safe prison environment and lead to better and fairer decision-making within the institution (Lambert et al., 2006). Also, prior studies have argued that perceived procedural and distributive fairness results in greater commitment, greater satisfaction, and fewer instances of misconduct among prison employees (Boateng & Hsieh, 2019a, 2019b; Khan et al., 2016; Lambert et al., 2006).

In addition to explaining behavior and attitudes, organizational justice has also been used to help understand prison staff stress levels; however, this line of inquiry has been very limited. The current study makes a significant contribution in this area. Thus, the current analysis used a sample of Chinese correctional personnel to explain occupational stress from an organizational justice perspective. Specifically, we assessed the influence of four dimensions of organizational justice – procedural justice, distributive justice, informational and interpersonal justice – on job strain. Several important observations were made.

First, we observed a negative relationship between three dimensions of organizational justice and job tension. Specifically, a higher perception of interpersonal justice reduces strain from the job. This finding is consistent with Boateng and Hsieh's (2019a) study that found that interactional justice had negative association with job strain among Ghanaian prison workers. Interpersonal justice is a part of interactional justice, and it emphasizes on the importance of communication within an organization (Boateng & Hsieh, 2019a; Cohen-Charash & Spector, 2001). Reducing stress among staff requires more than just the presence of two-way communication in the organization. The communication process should be characterized by politeness, dignity, and respect. Thus, prison employees should be treated with respect, politeness, and dignity by their superiors as they participate in the communication channels within the organization.

Distributive justice and procedural justice were two other dimensions that negatively influenced the occupational strain among Chinese prison personnel. Perceptions of a higher level of fairness related to outcomes in the organization are associated with reduced work stress (Lambert & Hogan, 2011; Lambert et al., 2007, 2019a). Staff consider their benefits and rewards in proportion to the degree of effort and energy they contribute to their work, and, as Boateng and Hsieh (2019a) noted, when employees perceive greater rewards and benefits, they are less likely to report a higher level of job stress.

Additionally, when staff believes that their workplace organization engages in procedurally just practices, they tend to have lower levels of stress and a decreased likelihood of burnout (Lambert et al., 2010). Perceptions of procedural justice would include fair, clear, and objective criteria within internal rules and processes with respect to "almost all aspects of the organization, including evaluations, promotions, pay increases, shift assignments, work assignments, and even discipline" (Lambert et al., 2006, p. 241). Although both distributive justice and procedural justice significantly influenced job tension, the effect of the former was greater than that of the latter, suggesting that stress is predicated more on perceptions of fairness in the outcomes of the organization than their views about fairness in the processes through which such outcomes are made. This conclusion is significant because it directly contradicts what prior studies have found, which mostly argue in favor of procedural justice as the strongest predictor of work strain.

Finally, we observed a limited effect of personal characteristics on their levels of stress. Among all the characteristics examined, only gender had a significant association. This is different from past studies, which indicated there was no relationship between gender and job tension in multivariate analysis (Boateng & Hsieh, 2019a; Lambert et al., 2006, 2007, 2010). In the current study, male staff were more likely to report greater stress at work. This finding is unclear and needs to be further researched.

As with many studies, the current research has limitations. It is a single investigation based on employees at two Chinese prisons. So, further research at other Chinese prisons and internationally is desirable as the current findings may be situational and contextual. Additionally, the organizational justice variables, particularly informational and interpersonal justice, need to be measured with more items. Here, in an exploratory study with a limited survey length, both informational and interpersonal justice were measured using single items. Future studies should also explore more specific measures of distributive and procedural justice. Again, the current study used general measures of these two types of justice. As well, future studies may wish to incorporate measures that focus on specific areas, such as salary and benefits, to explore whether views on distributive and procedural justice differ by outcome area.

Ideally, a longitudinal research design is preferable, as the current study's cross-sectional design could not measure causality. New research to explore the workplace factors which help shape the justice views of not only Chinese prison personnel but those in other nations is needed. How to raise organization justice views in an effective and efficient manner is also an important research goal. Future explorations should assess how the four organizational justice views are associated with other work outcomes, like work-family conflict, job burnout, absenteeism, turnover intent/turnover, life satisfaction, job performance, and organizational citizenship. In the current study, about 21% of the variance in job stress was explained by the independent variables, which means that 79% of the observed variance was caused by other variables. It is essential that future research identify these other variables so correctional administrators can institute changes that reduce staff levels of work stress.

Conclusion

In closing, employees are an important and an expensive resource in correctional workplaces, including those in China. In order to reduce job stress as a negative work outcome, research is needed on how workplace variables affect work tension. It has been postulated that views on organizational justice are negatively related to correctional staff job strain. The current study examined how four types of organizational justice (informational, interpersonal, distributive, and procedural) were associated with work tensions. Using data from staff at two Chinese prisons, only interpersonal, distributive, and procedural justice were observed to have significant negative effects on job stress, with distributive justice having the largest-sized effect. Future research should be directed to correctional administrators to raise awareness of the

issue of organizational justice and to improve the views of interpersonal, distributive, and procedural justice for work environment enhancement and job strain reduction. Advancing the research on organization justice across nations is an objective which the current authors hope will be inspired by the current study.

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