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Does the job matter? Comparing correlates of stress among treatment and correctional staff in prisons

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Abstract

The wealth of literature on stress in the correctional workplace focused on correctional officers, frequently ignoring treatment personnel employed in these same institutions. This study advanced the literature on correctional workplace stress by: (1) testing for differences in workplace stress between correctional officers and treatment personnel, (2) examining personal and environmental factors to determine whether distinct precursors to stress existed for these two groups, and (3) utilizing multiple measures of stress. Self-report survey data from 3,794 employees in ten adult prisons in a southwestern state demonstrated that both groups of employees reported moderately high levels of job stress and stress-related health concerns. Apart from perceptions of safety, sources of stress as well as protective factors against stress were similar for both groups with environmental factors demonstrating the most robust impact.

Introduction

Without doubt, correctional institutions are unique work environments in both context and purpose. Few other institutions are charged with the central task of supervising and securing an unwilling and potentially violent population. Physical facilities are comprised of cement walls, steel bars, and razor wire fencing. Most prisons tend to be relatively noisy, densely populated, and lacking in many of the comforts found in other work environments (Jacobs & Crotty, 1983). When strains, such as a negative work environment are placed consistently upon an individual, the resulting response oftentimes is an elevation of stress levels (Pearlin & Schooler, 1978; Toch, 1977; Toch & Grant, 1989). The consistency of high stress levels experienced by correctional officers was well documented (U.S. Department of Justice, 2000). For example, in a survey of 241 correctional officers, Lindquist and Whitehead (1986) found that 29 percent of the officers reported their jobs to be moderately stressful, and 39 percent of the officers reported their jobs to be more than moderately stressful or very stressful. The stress experienced by correctional officers resulting from the correctional facility environment, in addition to other factors such as low pay or lack of benefits, led to high turnover rates for correctional employees (Rosefield, 1981). Documented turnover rates varied between 16.2 percent and 40 percent depending upon the facility and data source (DeCarlo & Gruenfeld, 1989; Jurik & Winn, 1987; Mitchell, MacKenzie, Styve, & Gover, 2000; Slate, Vogel, & Johnson, 2001).

In addition to high turnover rates, workplace stress has other negative ramifications at both the individual and organizational level. Workplace stress, or occupational stress, as defined by Fitzgerald (as cited in Lancefield, Lennings, & Thomas, 1997) was “a disturbance of an individual’s physiological, psychological, or social functioning in response to a condition in the work environment which poses a perceived threat to an individual’s well-being or safety” (p. 206). A wealth of literature was produced in the field of psychology that demonstrated these individual level effects (see Edwards, Hannigan, Fothergill, & Burnard, 2002; Lyons, 2002 for recent reviews). Further, numerous studies found that work- place stress had negative organizational impacts as well. Studies demonstrated that stress was related to absentee rates,

internal conflict, and low employee morale, which had adverse reciprocal effects on the work environment (Auerbach, Quick, & Pegg, 2003; Eugene, 1999). Without favorable working conditions, the ability to attract and keep well-trained, effective personnel becomes increasingly challenging. For these reasons, continuing to examine work-place stress and the precursors to workplace stress is essential.

Researchers studied workplace stress from a variety of perspectives encompassing both the antecedents and correlates of stress including personal characteristics, organizational practices, social cli- mate, and physical environment. The majority of these studies examined workplace stress among correctional personnel using samples of staff members whose duties included the primary responsibility for the supervision and control of inmates.[1] Even though treatment personnel comprised a significant proportion of correctional employees inside the prison walls,[2] frequently, they were neglected in this type of criminal justice research. While the importance of understanding and reducing sources of workplace stress for correctional officers should be a major concern given the negative effects of stress, research on correctional treatment personnel is equally valuable and in need of further examination (Finn, 1998; Huckabee, 1992; Robinson, Porporino, & Simourd, 1996; Slate et al., 2001).

To further inform the research on stress among correctional personnel, this study examined the relationship between workplace stress and personal and environmental characteristics for both correctional officers and treatment personnel utilizing a population sample from adult correctional institutions in a southwestern prison system. This study advanced the existing literature by considering the relationship of personal and environmental factors and workplace stress distinctly for correctional officers and treatment personnel. In addition, this study utilized the entire population of correctional personnel from one state. Finally, this study utilized both an attitudinal measure of stress, as well as what some researchers argued was a more objective and accurate measure of stress, a stress-related health concerns measure (Cheek & Miller, 1983).

Environmental correlates of stress

An increasing number of empirical studies within criminal justice, as well as

external to the field, focused on the role of environmental factors in the creation of workplace stress. Within the correctional environment, researchers proposed a number of factors as sources of stress including administrative/ organizational practices, social climate, and physical characteristics of the prison environment including officer's perceived safety concerns.

Organizational practices

Role problems

Organizational factors suggested as significant contributors to workplace stress stem from the role of the correctional officer within the institution, as well as the institution's administrative practices. Changes in correctional philosophy from a rehabilitation orientation towards an increasingly custodial orientation, led to an increase in role problems for correctional officers, including role ambiguity and role conflict (Cullen, Link, Wolfe, & Frank, 1985; Poole & Regoli, 1980). Under the rehabilitation paradigm, a great deal of discretionary decision making allowed officers to contribute to the rehabilitation mission of the correctional institution. With the shift toward the view of correctional institutions as a punitive mechanism rather than a treatment facility, correctional officers were now placed in the role of being "social control agents" while also being mindful of humanitarian issues and prisoners' rights. Cullen et al. (1985) noted that although the primary goal of a correctional officer's position was for the most part defined as maintaining order and security, the means through which this goal was to be obtained were often less clear. Officers placed in this ambiguous position frequently experienced "a lack of clarity about one's role, job objectives, and the scope of the responsibilities of one's job" (Ivancevich & Matteson, 1980, p. 111). This type of uncertainty, or role problems, in the officer's daily duties could act as a trigger of workplace stress (Cheek & Miller, 1983; Cullen et al., 1985; Lombardo, 1989).

Organizational support

In addition to the role of the correctional officer within the institution, empirical evidence suggested that administrative practices, such as the level of organizational support of employees, were the most robust predictors of correctional officer

workplace stress (Auerbach et al., 2003). Specifically, officers who perceived a lack of support from their agency (Auerbach et al., 2003) or from their supervisory and management personnel (Brodsky, 1982) reported higher levels of stress. Brodsky (1982) used survey items such as “no support in dealing with public problems with visitors, protestors, press” and “no backing when attacked or goaded by inmates” to demonstrate the manner in which correctional officers perceived a lack of support by supervisors and upper level management (p. 81). According to Poole and Regoli (1980), correctional officers “having to accommodate their security and control functions to comply with organizational safeguards for prisoners’ rights also fosters the general feeling that they have been betrayed by their superiors” (p. 216).

Quality of supervision

Similar to level of support, Lindquist and White- head (1986) found that the organization and structure of the chain of command as well as the quality of supervisory practices were both correlated with stress. Sixty percent of the correctional officers Lindquist and Whitehead surveyed reported that organizational factors such as the “failure of super- visors to be consistent in instructions” acted as a major job stressor (p. 12).

Social climate

Co-worker support

Arguably, while some individuals who enter the correctional field find the prison environment an uncomfortable workplace and expeditiously find alternative means of employment, not all individuals deem the correctional environment to be as negative. One difference between those employees who continue and those who depart correctional employment may be their use of coping mechanisms in the workplace. Researchers found that correctional personnel who implemented coping mechanisms at the individual, group, and/or organizational level better adapted to workplace stress (Triplett, Mullings, & Scarborough, 1996). Thus, the development and maintenance of positive relationships with co- workers may act as a protective factor in an individual’s social climate, as these positive relation- ships provide the individual with an informal

social support network.

Additionally, some studies demonstrated that low levels of social support in the workplace led to increased levels of correctional officer stress, psychosomatic complaints, and physical ailments (Hola-han & Moos, 1982). A report on correctional officer stress by the U.S. Department of Justice (2000) provided several examples of the way in which stress was produced through negative interaction with co-workers. Officers reported increased levels of stress as a result of witnessing inappropriate interactions between co-workers and inmates, competing with other officers for 'choice' assignments, having to deal with burned out co-workers repeatedly venting frustrations and complaints, and the inability to count on co-workers to provide backup in a confrontation with inmates. Other studies found less support for the relationship between co-worker support and work- place stress. Specifically, Cullen et al. (1985) found that individual coping factors that included co-worker support (which they termed peer support) "had negligible or negative effects on stress" (p. 522).

Intrinsic rewards

Other researchers hypothesized about the importance of intrinsic valuation that employees gained when working with inmates as a significant factor in reducing a stressful workplace. According to Gerstein, Topp, and Correll (1987), correctional employees who felt social support was lacking in their work environment did not have greater levels of job burnout than those employees who felt supported. Gerstein et al. (1987) explained this surprising finding by suggesting that these employees found intrinsic reward from working with the inmates, thereby alleviating negative responses to their work environment.

Physical environment

Environmental safety

In addition to organizational practices and social climate, another factor that was suggested as a precursor to workplace stress was the concern that correctional employees had regarding their lack of personal safety. The perception of correctional work as inherently dangerous was supported to some extent by the reality of violence

within prisons. According to the U.S. Department of Justice (2000), “except for police officers, the number of workplace non-fatal violent incidents is higher per 1,000 employees for correctional officers than for any other profession, including taxi drivers, convenience store staff, mental health workers, and teachers” (p. 14). The U.S. Department of Labor, Bureau of Labor Statistics (2002) also found that the rate of fatal occupational injuries within correctional institutions was higher than most occupations, though significantly less than the rate of fatal injuries experienced by police and fire protection services and somewhat lower than public sector occupational classifications such as some areas of construction and trucking services.

It might, however, be more important that research found correctional officers tended to perceive their workplace as conducive to injury and violent situations, regardless of what objective injury data might demonstrate. While other occupations implicitly held hazardous conditions for an employee due to environmental factors, the correctional environment was unique in that correctional officers frequently perceived a constant threat of danger from those they supervised. Triplett et al. (1996) contextualized the types of safety concerns experienced within correctional environments as different from other workplace safety concerns stating that “it should be noted that though safety concerns are capable of eliciting stress in other organizations, their impact is probably not as great as that found among correctional officers. For correctional officers, safety is a particularly salient issue” (p. 303).

It was not surprising then that a number of researchers found through both qualitative and quantitative means that safety concerns were a statistically significant correlate of correctional officer stress (Cullen et al., 1985; Jacobs & Grear, 1977; Lindquist & Whitehead, 1986; Lombardo, 1989; Triplett et al., 1996; Veneziano, 1984). Dembo and Dertke (1986) noted that some of these safety issues included “disorder among inmates, the threat of violence against staff by inmates, the experience of violence among inmates by staff, and the relative inability of staff to retaliate vis-a`-vis inmates” (p. 329). Brodsky (1982) also found the dangerousness of the work environment, in addition to a feeling of power- lessness, to be important contributors to correctional officers’ stress.

Although Triplett et al. (1996) found officer safety concerns to be the strongest

predictor of higher stress levels, other studies found variations in the robust- ness of safety concerns as a predictor of stress. Veneziano's (1984) study found that although safety issues were a precursor of higher stress levels, especially for newer officers, administrative matters were a more robust indicator. Additionally, Auerbach et al.'s (2003) survey of juvenile correctional officers found physical danger ranked well below a number of organizational concerns such as long hours on the job and a lack of support by the correctional agency as sources of stress.

Security level

Though some evidence suggested that safety concerns were not as important as other stressors, studies linking facility security levels and stress suggested the importance of safety concerns might vary according to the nature of the correctional population. As Cullen et al. (1985) noted, maxi- mum-security prisons held the most serious offenders and therefore "present special demands for and barriers to secure control" (p. 509). A number of studies demonstrated support for a positive relationship between security level and workplace stress. In a study of 155 front-line personnel, Van Voorhis, Cullen, Link, and Wolfe (1991) found officers working in maximum-security placements were adversely affected by workplace stress in comparison to those officers in other types of security level placements who experienced lower levels of stress. Additionally, Bowker (1980) reported higher rates of correctional officer illness existed in maximum-security prisons in Australia as compared to minimum-security prisons, indicating a higher level of stress with higher security levels.

Personal correlates of stress

In addition to environmental factors, researchers previously noted the importance of considering personal characteristics, or social structures, as correlates of workplace stress. As Triplett et al. (1996) explained, "both the literature on correctional officer stress and the general stress literature (e.g., Aneshensel, 1992; House & Mortimer, 1990) suggest that social structural factors such as race and gender are important in examining exposure and vulnerability to stress" (p. 298). Researchers who examined

correctional officer stress frequently considered personal characteristics such as gender, race, and age as important correlates in their studies. While many researchers found that these characteristics accounted for significant variation in the dependent variable, the majority of studies demonstrated conflicting evidence on the directional effects of gender, race, and to some extent, age of the correctional officers on workplace stress.

Historically researchers argued that the changing face of the correctional workplace, which included more women and racial minorities, generated conflict within the correctional workforce (Britton, 1997; Hemmens, Stohr, Schoeler, & Miller, 2002), consequently, gender and race might play an important role in the stress levels of correctional officers. Maguire and Pastore (1999) noted that due to change in labor laws, "the number of minorities and women in the workforce has increased dramatically. As of 1995, 41 percent of the general correctional staff and 23 percent of the correctional/security staff in state and federal prison were female" (as cited in Hemmens et al., 2002, p. 473). Interestingly, in the relatively large body of studies that included gender as a correlate of work- place stress, primarily conflicting evidence resulted. Further, when a statistically significant relationship was found between gender and stress, limited agreement on the theoretical rationale existed.

Some researchers found that female correctional officers experienced higher levels of stress as compared to male correctional officers (Cullen et al., 1985; Zupan, 1986). Importantly, however, Carlson, Anson, and Thomas (2003) pointed out that the "bulk of the empirical support for this relationship was reported more than 15 years ago at a time when women correctional officers were still very much a novelty in men's institutions" (p. 284). Within these early results, researchers suggested that the higher stress levels experienced by female correctional officers were due in part to manifestations of male hostility in a "masculinized" environment that created a more stressful work environment for females. For example, Zupan (1992) suggested that male correctional officers tended to perceive female officers as lacking in the physical capabilities necessary for the job, and consequently, viewed female officers as unreliable "back ups" should an emergency situation arise. This attitude toward female correctional officers fostered resentment, which could in turn have a number of negative

ramifications such as poorly developed information social networks (Jurik, 1985), increased likelihood of sexual harassment or inappropriate treatment based on gender, as well as a perceived lack of social distance between female officers and male inmates leading to questions about the female employee's professionalism (Carlson et al., 2003). Each of these factors would contribute to a negative social climate and add undue stress for female employees.

Not all researchers, however, found gender to be a significant predictor of stress levels in correctional officers (see Britton, 1997; Fry & Glaser, 1987; Jurik & Halemba, 1984; Lancefield et al., 1997; Triplett et al., 1996; Weinberg, Evans, Otten, & Marlowe, 1985). Carlson et al. (2003) presented two reasons for the mixed findings on gender. First, they pointed out that the variation in the types and extensiveness of operational definitions of stress in the correctional literature might lead to mixed results. Second, they suggested "the stress-gender connection reported in earlier studies may no longer be valid as a growing number of women find employment in long term men and women's prisons" (p. 284). These explanations led to questions regarding the applicability of earlier findings in the rapidly changing correctional environment, as well as the modern day effect of gender on stress in prisons.

Many of these same arguments might mediate the relationship of officer race and job stress. Similar to gender, studying the effects of officer race in the correctional environment became of interest in the 1960s and 1970s due to the increasing number of racial minorities in the workplace (Van Voorhis et al., 1991). Did these theories, however, remain applicable? Some researchers argued racial conflict was evidenced by the increased likelihood of minorities to experience job-related discrimination, thus leading to greater job stress. Cullen et al. (1985) suggested their results which demonstrated minority officers were less satisfied with their jobs were likely due to a lower level of supervisory support and less occupation mobility. These same factors might also increase job stress levels. An opposing theoretical perspective presented by Blau, Light, and Chamlin (1986) suggested that minority officers were less likely to experience stress in a correctional environment postulating "black and Hispanic personnel feel more secure in a system with a majority of non white inmates" (p. 137).

The majority of studies found that the evidence on the relationship between race

and correctional officer stress was equivocal. Some researchers found that officers who were racial minorities reported higher stress levels than White officers (Rosefield, 1981; Toch & Klofas, 1982), while others found Caucasian officers reported higher stress levels (Blau et al., 1986; Mitchell et al., 2000). Still other researchers found no significant relationship between workplace stress and the race of the officer (Auerbach et al., 2003; Cullen et al., 1985; Jurik & Halemba, 1984; Jurik, Halemba, Musheno, & Boyle, 1987; Lambert, Hogan, & Barton, 2002; Triplett et al., 1996; Van Voorhis et al., 1991; Wright & Saylor, 1992).

Finally, studies that included the age of the correctional officer as a predictor found that younger officers reported higher levels of stress, while older employees reported lower levels of stress (Blau et al., 1986; Lancefield et al., 1997; Rosefield, 1981; Whitehead & Lindquist, 1986). A limited number of studies found either no effect of officer age on stress (Weinberg et al., 1985), or a curvilinear relationship between age and stress (Toch & Klofas, 1982). Given the lack of associated explanations or theoretical perspectives associated with this correlate, clearly age was one factor that required further examination.

Comparative studies on the experiences of correctional treatment personnel and correctional officers

Comparatively few studies examined correctional treatment personnel and their response to the work environment, and far fewer focused specifically on correlates of work-related stress among this group of prison employees (Huckabee, 1992). While treatment personnel were relatively dissimilar in their mission from correctional officers, they remained at risk for experiencing many of the same precursors to stress experienced by correctional officers. Similar to correctional officers, treatment personnel were at risk for high levels of role problems given their charge to treat and counsel persons who were unwillingly located in the treatment environment and oftentimes engaged in mandatory treatment programs. At the same time, however, the limited previous research that did exist suggested in some instances that work- related outcomes such as job satisfaction and job stress, and the correlates of these variables

might differ by occupational group.

Hepburn and Knepper (1993) compared correctional security officers with what they termed ‘human service’ officers on a number of work environment factors and found that human service officers reported less role strain, as well as increased perceptions of job-related extrinsic and intrinsic benefits as com- pared to security officers. In addition, human service officers enjoyed greater overall satisfaction with their job. Other research also supported this notion of differences among correctional job groupings, with correctional officers reporting lower levels of job satisfaction than case management officers (Lariviere & Robinson, 1996).

Other research demonstrated that job classification was not a consistent differentiating factor in predicting workplace experiences. Robinson et al. (1996) examined occupational differences on a host of work-related outcomes, including stress. According to Robinson et al. (1996), correctional officers differed significantly from other groups on most of the outcomes examined (e.g., organizational commitment, organizational change, job satisfaction, job performance). Both correctional officers and case management officers were found to have perceived the highest levels of stress among the five groups examined, which included administrative personnel, correctional supervisors, and professionals. Interestingly, job stress was not significantly different by occupation, however, once demographic factors were controlled.

More importantly, however, a more in-depth analysis of the correlates of workplace experiences pointed to distinguishing mediating factors in out- comes between these groups. In their examination of job satisfaction although Hepburn and Knepper (1993) found that after controlling for other factors job type did not have a significant main effect, additional analysis demonstrated that job type conditioned work-related outcomes, such that the predictors of job satisfaction differed by job type. While security officers’ job satisfaction were influenced by age, role strain, and intrinsic rewards, human service officers were influenced only by intrinsic rewards and perceived level of authority.

In conclusion, while the levels of various work- place experiences and perceptions appeared in some instances to be relatively similar among correctional officers and treatment personnel, the sources impacting these levels might be distinct.

What remained less certain then, was whether it was the environ- mental context of the organization, or the unique attributes of the job classification and the people within these positions that exerted the greatest influence on the level of stress among correctional employees.

Based on the literature reviewed above, it was expected that environmental factors related to the context of the correctional institution would have a greater effect on workplace stress for both groups than personal factors. Further, it was expected that employees who perceived their workplace environment as less conducive to role problems, and more conducive to higher levels of organizational support, quality supervision, and environmental safety, as well as those that provided co-worker support and intrinsic rewards would experience less workplace stress regardless of classification and type of stress measure.

Despite Hepburn and Knepper's results that job type conditioned job satisfaction, these results might not extend to job stress. Researchers found numerous parallels between workplace stressors in correctional institutions with other types of organizations. In a review of workplace stress literature Kahn (as cited in Triplett et al., 1996) identified a number of salient factors that paralleled those factors found to have impacted correctional officer stress as identified in the criminal justice literature. Triplett et al. (1996) cited this review as evidence that "[f]actors identified in the larger organizational stress literature do impact on correctional officers' reports of work related stress, which suggests similarities among all occupational categories" (p. 303). Triplett et al. (1996) later tested this conclusion in their own study of 476 correctional officers in a medium security, male prison. Triplett et al. (1996) found that correctional officers experienced stress due to factors common to all organizations, despite the uniqueness of their environment. Thus, if the correlates of workplace stress generalized outside of the prison walls, there was reason to expect they would generalize across job classification within the prison as well. Specifically, this study would test the following hypotheses:

Hypothesis 1. No statistically significant differences in the mean stress levels on attitudinal and health measures exist between correctional officers and treatment

personnel.

Hypothesis 2. Correctional officers and treatment personnel exhibit similar correlates of workplace stress on both attitudinal and health measures.

Hypothesis 3. Environmental predictors of stress have a greater influence on employees than personal level predictors.

Hypothesis 4. Employees who perceive positive organizational practices, a positive social climate, and a safer physical environment experience lower levels of correctional workplace stress.

Method

Participants

The entire population of employees in all ten adult state prisons[3] in a southwestern state received a self- administered "Quality of Work Life" survey in June 1999. The survey was part of the state's Department of Corrections' ongoing effort to assess employee perceptions of their prison's organizational climate. Along with the questionnaire, employees received a cover letter explaining the purpose of the survey and an envelope, which facilitated the anonymous return of the questionnaire to the Departmental Research Unit. Employees were allowed to complete the survey while on duty or off prison grounds. Of the 9,457 staff actively employed by the department, 5,540 individuals (58.6 percent) returned a usable questionnaire.[4,5] These analyses were based on data from respondents (n = 3,794) who classified them- selves as either correctional officers (CO I, CO II, sergeant, lieutenant, captain, major; n = 3,091) or treatment personnel (CO III, CO IV, religion, medical, dental, mental health; n = 703).

Descriptive statistics for the two groups are presented in Table 1. On average, the correctional officers were approximately thirty-five-years old. More than three-quarters of this group was comprised of men, with almost two-thirds being White. The majority of the correctional officers (57.9 percent) had been employed with the organization for more than four years. In comparison, treatment personnel were significantly older than the correctional officers, with a group mean age of forty-five. This group was almost evenly split by gender. Similar to the correctional officers, the majority

of the treatment personnel (55.8 percent) had worked for the organization for more than four years. Both groups were similarly distributed among the various security levels of their institutions.

Table 1
Descriptive statistics for individual demographic characteristics, environmental and dependent variables

Variables		Correctional officers (n=3,091)			Treatment personnel (n=703)		
		%	*M*	*SD*	%	*M*	*SD*
Individual characteristics							
Age			35.6	10.2		45.3	10.2
Gender	1 = Male	76.7			51.7		
	0 = Female	23.3			48.3		
Race	1 = White	65.2			74.2		
	0 = Not White	34.8			25.8		
Tenure (years employed)							
	1 = 5 or more	42.1			55.8		
	0 = 4 or less	57.9			44.2		
Facility security level							
	1 (minimum)	4.3			6.7		
	2	20.6			21.3		
	3	27.8			24.2		
	4	15.4			27.8		
	5 (maximum)	31.9			20.0		

	# of items	Range	*M*	*SD*	*a*
Environmental scales					
Role problems	6	7–30	17.47	4.67	.78
Organizational support	3	3–15	7.72	2.89	.80
Quality of supervision	7	7–35	25.56	5.80	.81
Co-worker support	6	6–30	22.94	3.66	.76
Intrinsic rewards	6	6–30	20.31	4.77	.84
Environmental safety	4	4–20	13.55	2.79	.61
Dependent variable scales					
Job stress	5	5–25	15.02	4.77	.81

Measures

Dependent variables

Two dependent variables were used as indicators of workplace stress. *Job stress* assessed the extent to which staff perceived feelings of tension and anger as a result of their work. This scale reflected a strategy commonly used in the literature by employing self- report attitudinal measures of workplace stress. Job stress was operationalized by a five-item Likert-type scale (α = .81) and was based on items previously used by Crank, Regoli, Hewitt, and Culbertson (1995).[6]

The second measure of workplace stress, *health*, used a more objective indicator of the employee's health status. A number of studies found that correctional officers had

a tendency to underreport their perceived, or attitudinal, level of stress even though they reported high rates of stress-related illness and family problems (Cheek & Miller, 1983; Triplett et al., 1996; Veneziano, 1984). By using a more objective measure of health conditions that developed as a result of stress, it was possible to obtain a more accurate measure of the employee's well-being. The health scale (α = .85) used five items drawn from the eighteen-item physical symptoms inventory developed by Spector and Jex (1998) (see also Spector, Chen, & O'Connell, 2000). This scale asked respondents to report the frequency of various stress-related health conditions, including headaches, fatigue, and stomach trouble on a five-point scale.

Independent variables

Six scales and one single item indicator was used to measure individual perceptions of the environ- mental factors that were suggested by the literature to impact workplace stress: role problems, organizational support, quality of supervision, co-worker support, intrinsic rewards, environmental safety, and security level.

Role problems was measured using a six-item scale (α = .78). For these analyses, role problems refer to the extent to which an individual experienced conflict over differing and ambiguous job demands. Items from this scale were previously used by Hepburn (1985), Hepburn and Albonetti (1980), Hepburn and Knepper (1993), and Poole and Regoli (1980). The scale included items such as "Often times, one rule will tell us to do one thing, but another rule tells us to do something else" and "One of the problems here is that it is never very clear as to who is responsible for doing different jobs."

A three-item scale measured an individual's perception of *organizational support* (α = .80), and was based on a scale previously used by Eisenberger, Huntington, Hutchinson, and Sowa (1986) (see also Griffin, 1999, 2001, 2002). The scale included items such as "The department takes pride in my accomplishments at work" and "Even if I did the best job possible, the department probably would not notice."

A seven-item scale measured the employee's perception of the *quality of supervision* (α = .81). The items for this scale were based on ones used previously by Putti, Aryee, and Phua (1990) and Saylor (1984) and included items such as "I

often receive feedback on my performance from my supervisor" and "I am free to disagree with my supervisor."

Co-worker support assessed the extent to which individuals believed they had established a positive social support network within their work environment (α = .76). Based on scales previously used by Motowidlo, Packard, and Manning (1986), and Haines, Hurlbert, and Zimmer (1991), this six-item scale included such statements as "The people I work with are helpful to me in getting my job done" and "Co-workers criticize my work to others."

A six-item *intrinsic rewards* scale was used to measure employee perceptions of benefits inherent to the job such as the opportunity for personal growth (α = .84). This scale was based on those previously used by Mottaz (1985, 1986) and Hepburn and Knepper (1993). They included items such as "I have opportunities to develop new and important skills" and "I have the chance to do things that make use of my abilities."

A four-item scale, *environmental safety*, assessed staff perceptions of workplace safety (α = .61). This scale was informed by those previously used by Hepburn and Crepin (1984), and Logan (1993) and included such items as "I feel safe when working among the inmates" and "I received the kind of training I need to keep myself safe while working here." Finally, a measure of the institution's *security level* that was publicly available from the State's Department of Corrections website was included. Security level ranged from 1 to 5, with a higher scale score representing a higher security level.

In addition to these environmental factors, a number of personal characteristics that also were hypothesized to impact workplace stress were included. These variables included gender, race, age, tenure or length of employment at the institution, and security level of the institution. Gender and race of the employee were measured as binary variables with 1 = males and White and 0 = females and other ethnic groups. Age of the employee was measured as a continuous variable. Tenure was measured as a categorical variable, 1 = employment length of five or more years with the institution, and 0 = four or fewer years of employment.

Results

Initially, a bivariate comparison between the treatment personnel and correctional officers on the self reported measures of health and job stress was completed. Interestingly as indicated in Table 2, treatment personnel and correctional officers reported similar levels of job stress and health concerns. A difference of means test indicated no significant difference in group means of either measure of stress confirming the first hypothesis.

To better understand the precursors of job-related stress and the extent to which they varied by job classification, a multivariate OLS regression models to identify the effects of personal and environmental characteristics on each measure of workplace stress by job classification was used. Standardized beta coefficients resulting from the four models are presented in Table 3. The first model represented the regression of job stress on all independent variables for treatment personnel, while the second model represented the regression of job stress on all independent variables for correctional officers.

Both OLS regression equations that incorporated personal and environmental variables explained a sizeable proportion of the variance in both the treatment personnel and correctional officers' reported job stress (R^2 = .42, pb.01; R^2 = .35, pb.01, respectively). For treatment staff, tenure (h =.13, pb.01) was the only personal characteristic that significantly influenced job stress. Those employees with longer periods of employment at the institution expressed higher levels of job stress.
Five of the environmental variables were found to significantly influence job stress among treatment personnel. Role problems exerted the strongest effect (β = .33, pb.01), with higher levels of conflict over differing and ambiguous job demands increasing job stress. Organizational support of treatment personnel was an important factor in decreasing levels of job stress (β = -.12, p<.05). Treatment staff who felt supported by the organization were less likely to report job stress. Further, increased perceptions of intrinsic rewards decreased the treatment staff members' level of job stress (β = -.18, p<.01), as did a positive co-worker social support network (β = -.11, p<.01).

Table 2
Means and standard deviations of workplace stress by job classification

Dependent variable	Treatment personnel	Correctional officers	*T*
Job stress, *M*(SD)	15.023 (4.77)	15.030 (4.28)	.042
Health, *M*(SD)	12.765 (4.58)	12.651 (4.65)	−.577

Among correctional officers, race and tenure were the only personal variables to influence job stress (β =.04, p<.05; β = .13, p<.01, respectively); while all environmental variables, except quality of super- vision, significantly influenced the perceived level of job stress. Similar to results from the treatment group, role problems had the more robust influence on levels of job stress (β = .32, p<.01). Perceptions of environmental safety in the workplace, which did not significantly affect treatment personnel's level of job stress, had a moderate effect on correctional officers' level of job stress (β = -.11, p<.01). Similar effects were also found for intrinsic rewards (β = -.10, p<.01), and co-worker support (β = -.10, p<.01) where a higher level of perceived intrinsic reward or co-worker support led to lower levels of job stress.

Table 3 also presents results from the regression of the dependent variable health on personal and environmental variables for both treatment personnel and correctional officers. The regression equations were statistically significant, and explained a sizeable proportion of the variance in the treatment personnel and correctional officers' reported level of health concerns (R^2 = .30, p<.01; R^2 = .24, p<.01, respectively). For treatment personnel, health was influenced significantly by three individual level variables: gender, age, and tenure. Women, younger staff, and those employed for longer periods of time reported increased concerns regarding their health. At the environmental level, organizational support (β = -.15, p<.01), role problems (β = .16, p<.01), and intrinsic rewards (β = -.23, p<.01) exerted a significant effect on the level of health concerns, with lower levels of organizational support and higher levels of role problems leading to increased health concerns. Once again, intrinsic rewards acted as a protective factor from stress. Treatment personnel who reported higher levels of

perceived intrinsic rewards were less apt to experience health concerns. Similar results were found for correctional officers regarding individual level predictors. Gender (β = -.08, $p<.01$), age (β = -.09, $p<.01$), and tenure (β = .11, $p<.01$) significantly influenced health concerns among correctional officers in the same manner and to a similar magnitude as was found with treatment personnel. All but one of the environmental variables significantly influenced health concerns among correctional officers. Role problems exerted the most robust influence, with those officers reporting higher levels of concern over differing job demands, also reporting higher levels of health concerns (β = .19, $p<.01$). Health concerns also were affected by organizational support of the officers (β = -.10, $p<.01$), with higher levels of perceived support resulting in lower levels of reported health problems. While not a significant predictor of health problems among treatment staff, perceptions of co-worker support (β = -.08, $p<.01$), and environmental safety (β = -.12, $p<.01$) were found to influence reported health concerns among correctional officers. A similar, though slightly less robust effect was found for the level of perceived intrinsic rewards (β = -.13, $p<.01$) with the correctional officers. Thus, the greater an officer's perception of support from co-workers, his or her belief in the presence of intrinsic rewards, and recognition of a safe job environment, the fewer reported health concerns.

Discussion

Using multiple measures of stress that included the use of a traditional attitudinal scale, as well as a more objective measure of the employee's health concerns, this study suggested that working in the correctional environment was a stressful undertaking regardless of the position in which one was employed. Both correctional officers and treatment personnel found their job to be on average at least moderately stressful. More importantly (and supporting the first hypothesis), this study found no statistical difference in the reported level of stress between these two groups of correctional employees.[7]

Table 3
Summary of multiple regression equations by dependent variable and group

	Job stress				Health			
	Treatment personnel		Correctional officers		Treatment personnel		Correctional officers	
	β	*SE*	h	*SE*	β	*SE*	β	*SE*
Individual correlates								
Gender (Male = 1)	−.05	.35	−.02	.18	−.09*	.38	−.08**	.22
Race (White = 1)	−.01	.41	.03	.16	−.00	.43	.01	.19
Age	.08*	.02	−.03	.01	−.11**	.02	−.10**	.01
Tenure	.13**	.35	.13**	.17	.16**	.39	.11**	.20
Environmental correlates								
Organizational practices								
Role problems	.35**	.05	.34**	.02	.18**	.05	.20**	.03
Organizational support	−.13**	.08	−.07**	.04	−.14*	.09	−.10**	.05
Quality of supervision	−.00	.03	−.02	.02	−.03	.04	.01	.02
Social climate								
Co-worker support	−.12**	.06	−.11**	.03	−.01	.06	−.07**	.03
Intrinsic rewards	−.17**	.05	−.12**	.02	−.23**	.06	−.13**	.03
Physical climate								
Environmental safety	−.09*	.08	−.14**	.03	−.08	.09	−.12**	.04
Security level	−.04	.14	.03	.06	−.02	.15	.02	.07
Adjusted R^2	.42		.35		.30		.24	
F ratio	30.16**		101.9**		17.49**		57.4**	

* p <.05.
** p <.01.

The findings regarding predictors of stress by job type provided partial support for the remaining hypotheses. When the correlates of workplace stress were examined, it became apparent that a number of commonalities existed between the correctional officers and treatment personnel. For individuals in both job classifications, employees who were older and/ or male, and those with longer tenure reported significantly lower levels of health concerns. Further, tenure was related positively to job stress for both groups of employees. The only individual correlate that influenced the two groups differently was the effect of age on job stress. For treatment personnel, older employees reported significantly higher levels of job stress, while age did not affect the correctional officer's job stress level.

The finding that tenure was positively related to stress ran contrary to the argument that suggested individuals adapted to the working conditions of a prison over time and experienced less workplace stress, and if individuals failed to adapt they would self select into (or be assisted with choosing) an alternative career path. The study

suggested that the longer people were employed in the prison, the higher their self reported stress levels. One explanation for this unanticipated finding was that employees with greater tenure might well have increased responsibilities within their position. One must ask, however, why would individuals who perceived their workplace as so stressful choose to remain employed by the institution? Perhaps, as state employees with significant tenure, the existing extrinsic rewards such as employee benefits and salary level accumulated during their tenure might outweigh the prospect of a new position elsewhere or a new career path especially given the current uncertain job market. Clearly, the relationship between age, tenure, and work outcome measures was complicated, requiring further examination.

This study, however, did support previous re- search indicating that the lack of rule clarity, ambiguous duties, and other factors that defined role problems significantly affected correctional officer stress. In fact, the variable role problems, was the single most robust predictor of job stress among correctional officers and treatment personnel alike. That this relationship between stress and role problems remained significant, regardless of job classification, however, was contrary to some of the prior comparative research. With much of the research regarding officer role problems citing the difficulties associated with the need to integrate the goals of custody and treatment, the similar findings for both groups of employees was of great interest. To find treatment personnel experiencing stress as the result of role problems suggested that the source of the problem lay not with the need to integrate correctional goals, but in the nature of the organization itself. In most instances, treatment professionals were not charged with the primary task of supervision and control. It was even questionable whether correctional officers continued to grapple with the custody/ treatment dichotomy when treatment was no longer a central goal of the organization. Arguably, correctional philosophy had changed significantly over the last decade, moving away from a rehabilitation orientation toward a much more clearly defined orientation of custody and control. Given their very different roles within the institution, the finding that both groups encountered role problems and that such problems contributed significantly to job stress suggested that the role problems were a function of the organization and not the specific job activity. This seemed a reasonable interpretation given that the unique purpose of the prison

institution (the containment of an unwilling and potentially dangerous population) required strict adherence to a host of policies and procedures, which if not followed could result in serious threat to the institution and the community. With such an emphasis on the need to follow institutional rules and regulation, it was not surprising that the organization's failure to clarify policy and delineate responsibilities had the greatest impact on employee stress.

An employee's perception of the intrinsic rewards associated with the job was also a relatively strong predictor of stress, especially among treatment personnel. When employees felt they were able to use their abilities, engaged in a variety of tasks or developed new skills, and exercised some personal judgment, they experienced lower levels of work- place stress. Supporting previous research, both groups of correctional employees appeared to desire challenge, change, and continued evolution of their careers rather than engage in routine, repetitive tasks. Again, that the findings were similar for both treatment personnel and correctional officers suggested that the workings of the larger organization were as important as the task at hand. Previous studies documented the way in which the necessary routine of the prison organization left little room for personal discretion or innovative approaches to one's work and the strain this placed on the employee (Johnson, 2002; Lombardo, 1989).

Interestingly, while organizational support proved to be a significant predictor of stress, an employee's perception of the quality of supervision did not. The more an employee perceived that their organization valued their work and input, the less stress they experienced in the workplace. Similarly, perceptions of support from one's co-workers significantly influenced an individual's reported stress level. When employees felt they could count on their co-workers and had positive working relationships with these peers, lower levels of workplace stress resulted. Again, this was true for both groups of employees indicating that regardless of the type of occupation, support from peers and the organization were significant in the management of work-related stress.

Perhaps the most interesting finding, and the one area on which security and treatment personnel differed the most, was the very salient issue of workplace safety. Perceptions of environmental safety influenced workplace stress for

correctional officers, but not for treatment personnel. Officers who perceived their working environment to be relatively unsafe reported higher levels of job stress and health- related problems. While this finding regarding the relationship between correctional officer concerns for workplace safety and stress was supported generally by previous research, the more interesting finding was the absence of this relationship for treatment personnel. Given the nature of the organization and the interaction with this incarcerated population, one would expect safety concerns to exert some influence on the stress level of treatment personnel. This not being the case, these findings suggested the need to consider both the nature of the job, as well as the "working personality" of the individual (Cheek & Miller, 1983; Skolnick, 1966).

As was explicated by many scholars addressing the position of the correctional officer within the prison organization (Hepburn, 1985; Johnson, 2002; Lombardo, 1989; Williams, 1983) central to the role of the officer was the supervision and control of inmates. Simply put, the guard/prisoner relationship was one of keeper and kept. The correctional officer must be on constant alert, attentive to the potential for unexpected violence and constant manipulation at the hands of inmates, and focused on "the 'law enforcement strategies' necessary to prevent" violence (Lombardo, 1989, p. 165). As mentioned previously, treatment personnel faced difficulties when interacting with individuals located in a 'total institution' who oftentimes were not engaging in treatment activities by choice. The basis of inmate interactions for this occupation group, however, lay within the treatment context. The purpose or goal of the interaction was one of assistance and support, not control and supervision. In this way, treatment personnel were not subject to the 'structured conflict' as it existed between inmate and correctional officer, and as such might not experience this as a source of stress within their working environment.

A second idea when considering the differences by occupational group in the relationship between work- place safety and stress was the notion of a 'working personality.' Some research suggested that the predominately male correctional officer workforce was characterized by a certain 'machismo' or belief that the essential skills required for the job includes such 'masculine' traits as physical strength and a willingness to use force (Cheek & Miller, 1983). Research suggested that such beliefs could

color an individual's perception of safety within the work environment (Griffin, 2001; Wright & Saylor, 1991). Studies found that male officers were more likely than female officers to characterize their job as highly dangerous (Crouch, 1985; Jurik, 1985; Wright & Saylor, 1991), believing more so than their female co-workers that assaults were likely to occur and that inmates were likely to use force against staff (Wright & Saylor, 1991). Perhaps treatment personnel, like female correctional officers, were less likely to "resonate to the perceived 'manliness' of the job" and thus were less likely to perceive the work environment as inherently threatening (Griffin, 2001, p. 228).

In addition to the examination of predictors of stress, this study advanced the discussion on the operationalization of workplace stress by utilizing a multiple measures approach. Researchers argued that correctional officers tended to underreport their perceived levels of workplace stress (Cheek & Miller, 1983). Some authors attributed this reporting behavior to the stereotypical "machismo" attitude of correctional officers. These same researchers suggested that a more objective measure of stress-related health concerns might be a more accurate, if not more appropriate, measure of workplace stress (Cheek & Miller, 1983). Although the data showed relatively similar effects of personal and environmental characteristics on both measures of stress, these factors explained a greater portion of variance in the traditional attitudinal measures of job stress as compared to the health-related concerns variable. The limited differences that did exist between the two measures of stress were found in gender and age, and were specific to correctional officers. Female and younger correctional officers were significantly more likely to report health-related concerns, even though these variables were not significant predictors of job stress. Given that results did not show large within group differences for these two modes of measuring work- place stress, future researchers are encouraged to continue to investigate multiple measures of stress by including a more complex composite of health concerns rather than limiting themselves to a brief number of physiological indicators as was necessary in this study. If consistent patterns of health-related concerns appear for employees, regardless of job classification, and consistent factors produce both job stress and health concerns for their employees, administrators may be able to utilize this information to invest in preventative health measures including seminars and information for their employees,

thereby potentially reducing the rate of employee sick days.

In summary, these findings not only lent support to the vast majority of prior literature that examined workplace stress in correctional officers, but also added to the limited comparative research examining both correctional officers and treatment personnel, and their workplace experiences. This study found greater similarities than differences in the sources of stress among occupational groups in the correctional setting, suggesting that it was the context of the broader organization rather than the unique attributes of the job that exerted the greater influence on the level and sources of stress between these two groups of correctional employees. The implications of these findings are especially important for existing institutional employee stress management or reduction programs. It is important to understand the similarities between these groups when shaping future institutional policies, or developing specific stress management and stress reduction programs. Further, these results assist in understanding that evidence based policy decisions and administrative attempts to improve the prison environment for correctional officers will also benefit other correctional employees.

Based on this study, a number of areas for future research are recommended. Given the similarities found in sources of workplace stress in the correctional environment, it would be important to deter- mine if these sources extend to correctional administrators or others not included in this analysis. Further exploration is needed to determine if these circumstances exist in various types of correctional facilities including those with major programmatic differences, those operated by private companies and organizations, and institutions that house juvenile populations.[8] Additionally, researchers and practitioners alike are encouraged to quantitatively and qualitatively explore the protective factors, or coping mechanisms, that were found to exist within the correctional environment to better understand how these mechanisms may be better institutionalized, to the benefit of all employees.

Appendix A. Environmental correlates scale items

Job stress:

When I'm at work, I often feel tense or uptight. I usually feel that I am under a lot of pressure when I am at work.
There are a lot of things about my job that can make me pretty upset.
A lot of times, my job makes me very frustrated or angry.
My work environment allows me to be attentive, yet relaxed and at ease.

Health:

Due to work conditions here, how often have you experienced headaches?
Due to work conditions here, how often have you experienced tiredness/fatigue?
Due to work conditions here, how often have you experienced irritability/irritation?
Due to work conditions here, how often have you experienced mental health issues?
Due to work conditions here, how often have you experienced stomach trouble?

Role problems:

Oftentimes, one rule will tell us to do one thing, but another rule tells us to do something else.
When a problem comes up here, nobody can agree on how it should be handled.
The rules and regulations are clear enough here that I know specifically what I can and cannot do on my job.
One of the problems here is that it's never very clear as to who is responsible for doing different jobs.
The rules I am supposed to follow here never seem to be very clear.
There are so many rules and regulations telling me how to do my job that I am not sure I can follow all of them.

Organizational support:

The department takes pride in my accomplishments at work.
Even if I did the best job possible, the department probably would not notice.
The department values my input.

Quality of supervision:

I often receive feedback on my performance from my supervisor.
On my job, I know what my supervisor expects of me.
My supervisor asks my opinion when a work- related problem arises.
I am free to disagree with my supervisor.
I can tell my supervisor when things are wrong. My supervisor respects my work.
My supervisor is knowledgeable and competent.

Co-worker support:

I usually get along very well with my co-workers. The people I work with are helpful to me in getting my job done.
I know I can get help from my co-workers when I need it.
Co-workers criticize my work to others. The people I work with are competent.
My co-workers respect my work and abilities.

Intrinsic rewards:

I have opportunities to develop new and important skills.
The chance to do different things from time to time.
The chance to do things for other people.
The chance to do things that make use of my abilities.
The feeling of accomplishment I get from the job. The freedom to exercise personal

judgment.

Environmental safety:

I feel safe when working among the inmates.
I received the kind of training I need to keep myself safe while working here.
I have the equipment needed to keep staff from getting hurt by inmates.
I have the back-up support I need if things get rough.

Notes

1. Referred to hereafter as “correctional officers.”
2. According to the Office of Applied Studies (1999), 1997 Uniform Facilities Data Set that collected survey data from 716 state prisons, of the facilities that offered substance abuse treatment services (79 percent), 3,265 treatment personnel were employed which resulted in an inmate to treatment personnel ratio of 25:1. This number did not include medical personnel or non-substance abuse treatment personnel.
3. Ninety-six percent of the ten facilities were comprised of male inmates. Due to the limited variation in the inmate’s gender, it was not possible to include this factor as a control variable in the analysis.
4. Some significant differences were found when comparing the demographic characteristics, job classification, or institutional location of those who responded to the survey with those who did not respond. Employees who were female, older, held longer tenure, held higher level (i.e., warden, deputy warden, associate deputy warden), or held security-oriented positions were more likely to respond. Response rates varied between 43.9 percent and 75.3 percent at the ten institutions, with an average response rate of 58.4 percent.
5. One of the possible limitations of this study should be noted. As mentioned earlier, a moderately low response rate (58.4 percent) to the survey was received, which led to

questions regarding the generalizability of the sample. Although the response rate was not unusual for this type of survey as compared to previous studies, the reader should remain mindful of this fact. Unfortunately, no data were available from the Department of Corrections regarding the population of treatment personnel employed at their facilities to determine the representativeness of the respondents. These data, however, were available for the entire correctional officer population.

6. All scales used in this study were informed by scales from previous studies. Some items were altered to incorporate the name of the local agency, or to update wording. All items were measured on a five-point scale (1=strongly disagree, and 5=strongly agree) with some recoding of items such that higher numeric values represented a higher level of the variable measured (e.g., higher level of stress, more positive attitude toward the quality of supervision, etc.). Confirmatory factor analyses and reliability analyses verified the integrity of all scales. Only items that loaded on a single factor were used to construct each scale. Alpha reliability coefficients are reported in Table 1. A listing of all scale items was included in Appendix A.

7. At the suggestion of an anonymous reviewer, an interaction between job type and gender was tested. Data did not demonstrate a significant interaction between these variables.

8. A limited number of studies examined correctional officer stress levels within juvenile correctional facilities (Auerbach et al., 2003; Mitchell et al., 2000).

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