



Well-being in Protective Services Personnel: Organisational Influences

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Abstract

Personnel employed in the protective services are routinely exposed to events and situations that can be described as stress inducing and traumatic. While the general stereotype is that these occupations are highly stressful, as a result of this repeated exposure, recent studies have shown that such personnel rate the organisational characteristics of their job as more stressful than operational exposure to traumatic incidents. The aim of this investigation was to apply a model of organisational health in an emergency services context, with a specific focus on the contribution of organisational factors to employee stress and well-being. Participants were 321 police, ambulance and firefighting personnel. Structural equation modelling analysis revealed that organisational climate had the strongest influence on employee job satisfaction, with both direct and mediated relationships through coping and daily work experiences. The fact that organisational processes have such a profound impact on employee well being highlights the importance of acknowledging the effect of organisational influences on protective services employees, particularly for the development and promotion of truly preventative mechanisms in dealing with critical incident and occupational stress.

Well-being in Protective Services Personnel:

Organisational Influences

Introduction

Studies of the construct of organisational stress to date have been predominantly embedded within a pathogenic framework. The pathological paradigm predisposes interest in what is inherently wrong with the world, focussing on the different manifestations of negative consequences for individuals, (Antonovsky, 1990, Violanti, Paton & Dunning, 2000). As a consequence, terms such as stress and trauma have become intrinsically linked to outcomes defined in terms of, for example, loss, distress or pathology. In the context of the protective services, the pathogenic paradigm argues that exposure to *any* traumatic event will disrupt the capacity of *all* personnel involved to function normally (Mitchell & Everly, 1997, Paton, Violanti & Smith, 2003, Violanti et.al., 2000). Within protective service organizations, the operation of this paradigm has led to the principal focus of stress pathology prevention being located within the tertiary phase; that is, after exposure to stressful or traumatic incidents.

Stress prevention at the tertiary phase is generally accomplished through the implementation of intervention programs such as critical incident stress debriefing/management (e.g. Mitchell & Everly, 1997). These programs have grown out of the pathogenic paradigm and thus while necessary and welcome additions to stress management processes within the emergency services, they tend to attribute stress causality to the nature of the incident encountered by personnel. These programs are seen as particularly important within emergency provider occupations because of the high level of traumatic incident exposure for officers. However, the extensive implementation of such programs has also served to perpetuate the belief that stress causality should be attributed to an event rather than to officer or organizational characteristics.

In a similar vein, the pathogenic paradigm predisposes organizations to assume there is a direct link between exposure to adverse traumatic events and the automatic development of traumatic psychopathology (Hart & Cooper, 2001, Paton et al., 2003). As such, the maintenance of psychological well-being is held to be dependent upon the avoidance of stress (Antonovsky, 1990). Pathogenesis assumes that the avoidance or decrease of negative influences and outcomes automatically contributes to greater well-being and assumes that stress and well-being are continuum based concepts. Accordingly, a decrease at one end of the continuum should correspond to an increase in the other. However, the validity of this approach as a comprehensive basis for conceptualising stress risk is increasingly being questioned.

Salutogenesis and Reconceptualising Stress

In contrast to how it is defined within the pathogenic paradigm, salutogenic conceptualisations of the stress process acknowledge that life experience comprises both positive and negative dimensions (Antonovsky, 1990), and, importantly, that these dimensions are separable, discrete entities which can exist concurrently. Salutogenesis concentrates primarily on identifying how people stay healthy following stressful encounters. Indeed, Tedeschi & Calhoun (1995) argue that adverse experience is a necessary component of post-traumatic growth. Advocates of this paradigm hold that differences between health breakdown and wellness depend principally on one's outlook on life, rather than on avoidance of stress.

The salutogenic model assumes that stress is a naturally occurring part of the lives of every individual (Antonovsky, 1990). From this standpoint Antonovsky argues that a person's coping ability and sense of wellbeing is connected to what extent stress is experienced as coherent, manageable and meaningful by an individual. Salutogenic conceptualisations of the stress process argue that the stronger a person's sense of coherence, the more likely they are to be able to successfully deal with life stressors. In this way it separates positive and negative aspects of life experience and acknowledges their independence, rather than conceptualising them on a continuum.

The importance of utilising a more comprehensive conceptualization of stress, such as that provided by salutogenesis, and examining the dynamics of vulnerability and resilience is growing as a consequence of increasing recognition that organisational factors are important predictors of occupational and traumatic stress (Gist & Woodall, 1998, Hart, Wearing & Heady, 1993; 1995). The salutogenic conceptualisation has increased in popularity as a result of research increasingly indicating that the incidence of positive and growth outcomes associated with working in disaster and

critical incident contexts is more prevalent than previously thought (Armeli, Gunthert & Cohen, 2001, Aspinwall & Staudinger, 2003, Hart, et al., 1993, 1995, Paton, et.al., 2003, Shakespeare-Finch, Smith, Gow, Embleton & Baird, 2003, Tedeschi & Calhoun, 1995). These findings do not negate the potential for adverse outcomes to accompany critical incident exposure. Rather, they strengthen the argument for a more comprehensive approach to conceptualising emergency service stress. Thus, while the potential distressing nature of the operational aspects of protective service occupations remains important the focus of attention needs to shift from that of the incident, to the officers themselves and the ways in which they interpret their operational experiences and render them coherent (Paton et al., 2003, Hart, et al., 1995, Violanti et al., 2000).

In order to account for individual perceptions, it becomes pertinent to consider employee's positive and negative daily work experiences alongside the more general impact of the organisation itself. A distinction between the relative influences of operational and organisational experiences on stress must be drawn, particularly in the context of protective service occupations, where operational (i.e., job critical incident stressors) exposure has, traditionally, been the focus of investigation. Each of these facets of the job, and their contribution to the stress process need to be examined independently. Furthermore, in the context of Antonovsky's (1990) argument that sense of coherence is a prominent predictor of psychological growth, it is necessary to include employee perceptions of the prevailing culture or climate of the organization. It has been argued that coherence is a reflection of the interaction between individual disposition and organisational culture and that culture therefore plays an important role as a sense-making device (Weick, 1995). This issue is of particular importance within the emergency services, especially in the provision of employee training programs, which can provide competencies and coping strategies (Lorr & Strack, 1994) that enhance a capacity for positive outcomes, but also in terms of the organization providing the framework within which stressful/traumatic incidents can be interpreted.

Influences on Occupational Stress and Well-being.

Organisational climate refers to the perceptions employees have about the way in which their organisation functions and has two identifiable components: organisational structures and processes that are part of everyday organisational activities; and employee perceptions of these activities (Anderson & West, 1998, Hart & Cooper, 2001). According to Hart and Cooper, the construct is not directly related to how people feel about their organisation and does not present an implicit emotional overtone as do perceptions of organisational stress. Instead, climate perceptions denote a cognitive description of what is happening in the organisation from an employee perspective. Climate, as a group variable, has been shown to be a central determinant of employee wellbeing (Hart, 1999; Hart & Cooper, 2001, Hart, et al., 1995). As protective services officers experience traumatic events in the context of an organisational environment that influences patterns of interaction with such events (Gist & Woodall, 1998), an understanding of climate is pivotal in the attempt to comprehend employees' perceptions of their occupational experiences.

The concept of coping has been conceptualised in many different ways, however, the distinction between emotion-focussed (EF) and problem-focussed (PF) coping (Lazarus & Folkman, 1984) has proven to be both a useful and popular definition, particularly when the relationship between individual employees and the organisation is considered. EF coping is devoted to the decrease of distress through the management of an individual's emotions (having both cognitive and behavioural components), and is generally useful, and adaptive, in situations where the individual has little control over their environment. In contrast, PF coping refers to a direct action or behaviour focussed on the solution of a problem, and effective when the situation is amenable to change (Biggam, Power & McDonald, 1997; Hart & Cooper, 2001).

The paramilitary nature of the occupations being considered here, particularly that of the police, dictates that the training programs provided by the relevant organisation, instil within personnel the expectation of exposure, and also provide personnel with prescriptive procedures for responding to events as well as providing them with several ways of coping with the consequences of exposure to challenging events. Although typically perceived as a personal disposition, coping style can be influenced by organizational culture. Cultural predispositions within the organization, and how it is sustained by senior officers, can encourage or discourage emotional disclosure and, as a consequence, influence the coping style adopted (Paton & Violanti, 1996). As a result, the choice of coping strategy made by individuals in these occupations is likely to have a profound effect on their everyday experiences in the workplace. Furthermore, on the assumption that training (e.g., with regard to its role in enhancing competencies and influencing choice of coping strategy), and the attitudes and beliefs conveyed in these processes, will reflect organisational culture, the latter may be conceptualised as having a direct and indirect effect on the likelihood of positive and

negative outcomes for personnel.

Hart and Cooper (2001) proposed a conceptual model of organisational health, consistent with the salutogenic paradigm (Figure 1). Influenced heavily by the dynamic-equilibrium approach to stress (Hart, 1994), they illustrate the potential for stress to result from several variables, both individual and environmental. The dynamic-equilibrium approach holds that stress occurs when a state of imbalance or disequilibrium manifests within the network of variables that relate people to their environments. Disequilibrium is particularly important in the present context, in that, pathogenic models perceive it as a state of loss or deficit. However, the emphasis of salutogenesis is returning to (resilience) or growing from (adaptation) being in this state (Antonovsky, 1990, Paton et al., 2003). This approach provides a more neutral context in which to consider how traumatic events can be resolved as deficits or growth.

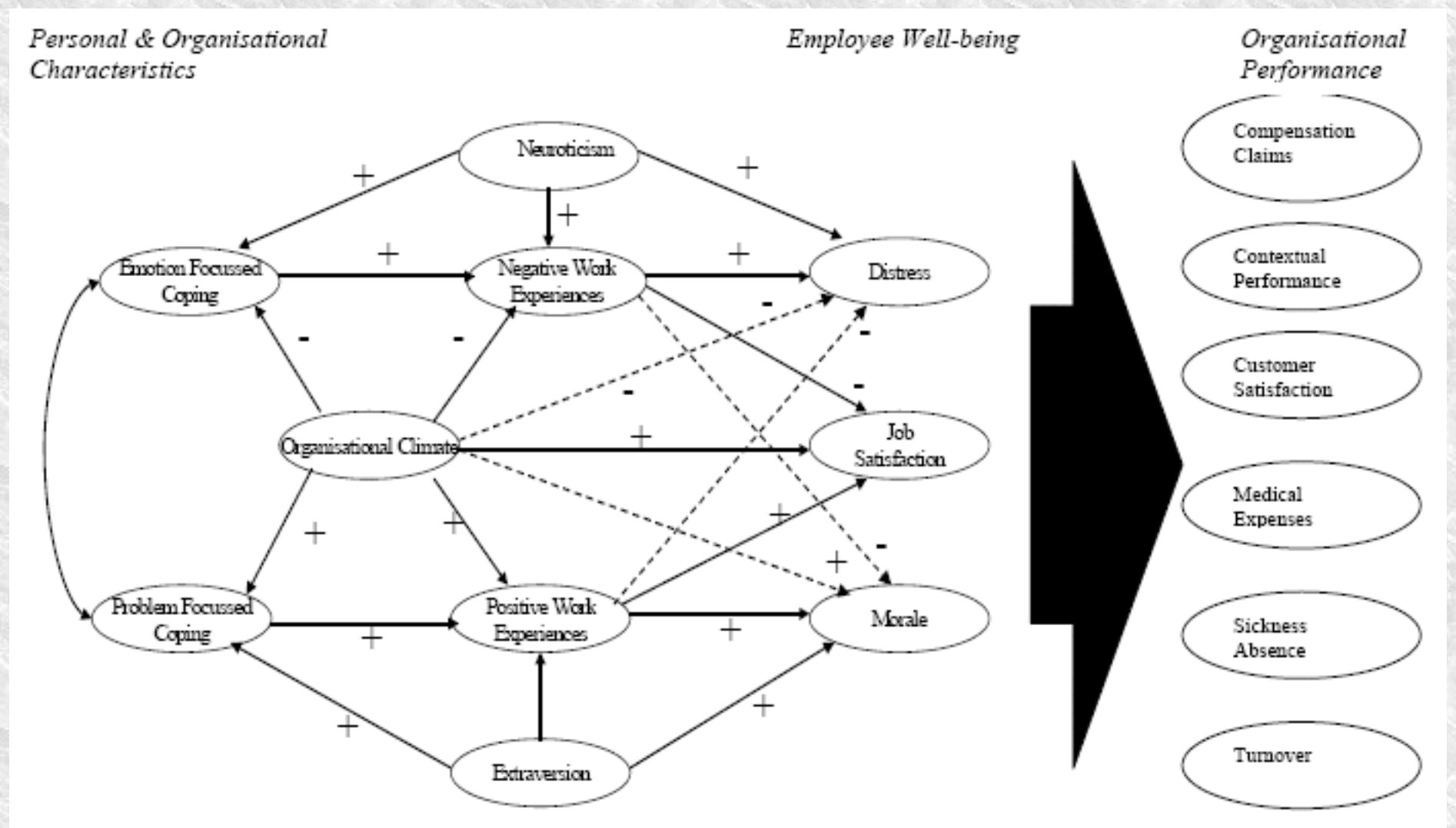


Figure 1. The model of organisational health proposed by Hart & Cooper (2001).

(+ indicates and expected positive relationship , - indicates an expected negative relationship.
Arrows indicate the direction in which each variable is proposed to influence the other).

Disequilibrium does not automatically represent a stimulus for a negative change in psychological well-being, but represents a point at which previous assumptions are questioned (Paton, 2006). Therefore, the event that triggers the disequilibrium can act as a catalyst for adaptation and individual growth, if the reestablishment of equilibrium develops a person's overall sense of coherence (Paton, 2006; Paton et al., 2003). A key issue of this perspective is the identification of the mechanisms that lead to this disequilibrium being resolved in a salutary or in a pathological manner. Consequently, the development of a more balanced and comprehensive view of occupational and critical incident stress in protective services personnel requires acknowledgment, clarification, and examination of the roles and relationships between positive and negative outcomes, individual and organisational processes, and the integration of these findings into a coherent whole.

The Current Study

The aims of this investigation are two fold. Firstly, the study proposes to apply a simplified version of the model forwarded by Hart and Cooper (2001) within an emergency services context, utilising police, ambulance and fire personnel. These occupations were chosen as while having slightly different occupational contexts, all involve operational exposure to potentially traumatic incidents. Further, each occupation has an hierarchical, bureaucratic organizational structure within which this exposure takes place. In this vein, the study's primary objective is to examine the relative influences of organisational factors on employee well-being from a salutogenic perspective, and

provide support for the notion that organisational influences are in fact salient factors in determining employee well-being. The expected directional influences of the relationships between each construct are outlined in figure 2, and, in keeping with the propositions of Hart and Cooper's model, it is predicted that:

- i. Employees will engage in both EF and PF coping in order to manage situations in their work environments, therefore there will be a positive relationship between the two constructs;
- ii. Organisational Climate will have a negative influence on EF coping which will in turn have a positive effect on the work experiences of employees. Similarly, climate will positively influence PF coping, which will in turn have a positive influence on the positive work experiences of employees;
- iii. Organisational Climate will also have a negative effect on negative work experiences; and a positive effect on positive work experiences; these effects will be equal and independent of the effects on experience through coping;
- iv. Positive and Negative work experiences will make equal, but independent contributions to job satisfaction; and while their influence will be equal, there will be no degree of association between the two constructs;
- v. Organisational climate will have a positive influence on job satisfaction and will have the strongest relative impact of the three variables contributing to job satisfaction.

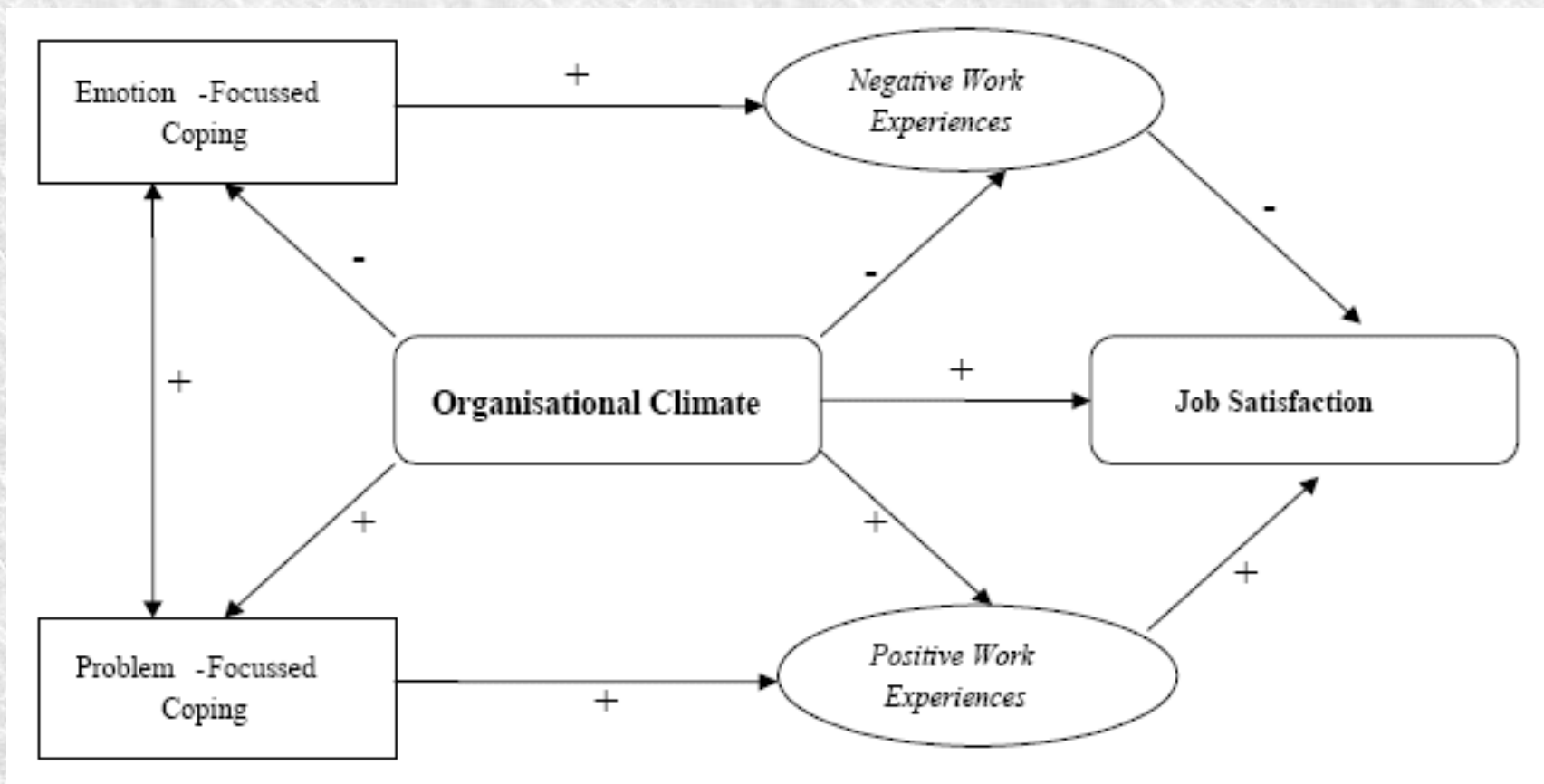


Figure 2. The model being investigated.

(+ indicates and expected positive relationship, - indicates an expected negative relationship. Arrows indicate the direction of the relationships between the variables).

Method

Participants

One thousand five hundred and fifty seven protective services employees, comprising police officers ($n= 430$), professional and volunteer ambulance officers ($n= 627$), and professional and volunteer firefighters ($n= 500$) were approached to participate in this investigation. Of the original pool, respondents were 117 police officers, 103 ambulance officers (inclusive of 47 volunteers) and 101 firefighters (inclusive of 84 volunteers). Data were excluded due to missing cases for 6 respondents, yielding an analysed N of 315. The age of participants ranged from 17 – 74 and 80% of those who responded were male.

Materials

Organisational climate was measured using an adapted version of the short form of the Team Climate Inventory (Anderson & West, 1998) which measures five specific facets of group climate; vision, participation safety,

innovation, task orientation and interaction. Adaptations were made to reflect the divisional structure of the professions. This was based on the finding that prevailing organizational culture in these professions is influenced more by the culture at the ‘station’ level, rather than reflecting a more global organizational culture (Stephens & Miller, 1998). Respondents were asked to indicate how true they thought the statements to be of themselves, their colleagues and their workplace and answered according to a five point Likert scale where 1= not at all and 5= completely. Reliability indices were conducted on the adapted form. Coefficient alpha, ($r=.96$) and split-half reliability, (Equal length Spearman Brown $r=.85$) indicate that the internal consistency of the instrument with the adaptations is good.

Positive and negative work experiences were measured using the police daily hassles and uplifts scale (PDHUS) (Hart, et al., 1993, 1995). On the hassles scale respondents were asked to ‘indicate the degree to which each experience has hassled or bothered you as a result of your work during the past six months’. Participants rated their answers on a five point Likert scale where 1= definitely does not apply to me, and 5= strongly applies to me. Similarly, the uplifts questionnaire asked respondents to ‘indicate the degree to which each experience has made you feel good as a result of your work during the past six months’. Responses are made on the same five-point scale as the hassles questionnaire. While this study utilised a scale range of 1-5 to maintain consistency of measurement across instruments, the instrument published by Hart, et al. (1993) adopted a scale range of 0-4.

The PDHUS administered to ambulance and fire personnel was adapted to reflect the nature of the specific hassles and uplifts experienced by members of these professions. The adapted items were developed in close consultation with both the fire and ambulance services in order to ensure the experiences included were consistent those encountered within the respective occupation. Reliability indices for the revised forms indicate good internal consistency and reliability. Analysis yielded an alpha of $r=.97$ for negative work experiences (hassles) and $r=.96$ for positive work experiences (uplifts), and Equal length Spearman Brown of $r=.95$ for the negative form and $r=.89$ for the positive form.

The coping strategies utilised by respondents were measured using the COPE inventory (Carver, Scheier & Weintraub, 1989) which was used to provide a measure of the overall constructs of PF and EF coping. Respondents were asked to consider their responses to critical incidents that had been difficult or stressful, and to indicate what they generally do or feel after involvement in a critical incident. Responses to the statements were made on a five-point scale where 1= I don’t do this at all and 5= I do this all the time.

Job Satisfaction was measured by the Job Satisfaction Inventory (JSI) (Brayfield & Rothe, 1987), which provides an 18 item measure of general job satisfaction. Participants were asked ‘for each of the following statements please indicate which best describes your opinion about your job’, and responded according to a five point scale where 1= strongly disagree and 5=strongly agree. This questionnaire was the same regardless of occupational group.

Procedure

Participants were instructed that they were being asked to complete a survey about their experiences as a Police Officer/Ambulance Officer/Fire fighter. The questionnaire was completed and returned to the researcher via a reply-paid envelope or completed securely online. All responses were confidential and no identifying details were collected. A standardised reminder sheet was sent to all potential participants 3-4 weeks after the initial distribution of questionnaires. All groups were given a 6-8 weeks within which to respond.

Results

Descriptive Statistics

The data indicates that the three occupational groups had comparable levels of job satisfaction. Ambulance officers reported the highest mean level ($M=70.57$, $SD= 9.49$) followed by Fire fighters ($M= 66.67$, $SD= 11.89$). Police officers had the lowest job satisfaction score ($M= 62.28$, $SD= 14.53$), irrespective of occupational group overall, satisfaction had a mean of 66.33 ($SD= 11.74$). Tables 1 and 2 show the means and standard deviations of the construct predictor variables, which correspond to the respective subscale scores for each concept. Table 1 indicates little difference in reports of operational and organisational hassles between the three occupational groups. In contrast, organisational uplifts were reported to a much greater extent than operational uplifts consistently for all three

occupations. In addition it is worth noting that all groups reported similar levels of organisational uplifts. Table 1 also shows participation received the highest score of the organisational climate predictor variables for Police, but the vision subscale scored highest amongst Ambulance and Firefighters. Interaction was rated lowest amongst all occupational groups.

Table 2 indicates that for Police the lowest mean predictor score for the construct of PF coping was instrumental social support, compared to suppression of competing activities for both Ambulance and Fire personnel. The predictor that consistently received the highest mean score was acceptance for all three groups. Similarly, for EF coping, alcohol and drug use received the lowest mean score, while emotional social support received the highest across all three occupations.

Table 1. Means and Standard Deviations for the Predictor Variables of Positive and Negative Work Experiences and Organisational Climate.

Construct	Predictor	Police Mean	Ambulance Mean	Firefighter Mean	Overall Mean
Negative Work Experiences	Operational Hassles	92.15 (21.69)	80.82 (24.24)	73.40 (21.96)	82.57 (23.86)
	Organisational Hassles	86.38 (19.18)	80.04 (26.65)	76.21 (24.84)	81.12 (23.90)
Positive Work Experiences	Operational Uplifts	43.50 (9.39)	48.41 (8.93)	47.03 (10.28)	46.19 (9.73)
	Organisational Uplifts	91.71 (15.97)	95.39 (16.82)	90.43 (19.88)	92.48 (17.63)
Organisational Climate	Vision	32.57 (6.51)	37.96 (9.11)	39.98 (8.03)	36.65 (8.49)
	Participation	35.96 (6.83)	36.95 (9.02)	37.80 (9.65)	36.86 (8.52)
	Innovation	20.76 (5.22)	22.34 (7.63)	24.53 (7.06)	22.46 (6.82)
	Task Orientation	30.61 (5.52)	31.70 (7.97)	32.41 (6.78)	31.53 (6.80)
	Interaction	11.60 (3.43)	12.02 (3.93)	12.65 (3.57)	12.07 (3.65)

N= 315

Note. Figures in brackets are standard deviations.

Table 2. Mean Scores and Standard Deviations for the Predictor Variables of Problem Focussed Coping and Emotion Focussed Coping.

Construct	Predictor	Police Mean	Ambulance Mean	Firefighter Mean	Overall Mean
Problem Focussed Coping	Active Coping	11.95 (2.81)	11.93 (3.69)	10.79 (3.27)	11.57 (3.29)
	Planning	12.22 (3.79)	12.06 (4.26)	10.92 (3.95)	11.76 (4.03)
	Suppression...	9.99 (3.04)	9.85 (3.28)	9.79 (3.5)	9.88 (3.26)
	Restraint	10.42 (3.13)	9.94 (2.92)	10.25 (3.56)	10.21 (3.21)
	Social Support – Inst	9.67 (3.48)	11.28 (3.90)	11.03 (3.81)	10.62 (3.78)
	Positive				

	reinterpretation	12.65 (3.62)	14.08 (3.75)	12.94 (3.81)	13.20 (3.76)
	Acceptance	14.68 (3.01)	14.56 (3.52)	13.70 (4.09)	14.33 (3.56)
Emotion Focussed Coping	Social Support – Emot	8.99 (3.69)	10.88 (4.42)	10.42 (3.67)	10.05 (4.01)
	Focus & Venting	7.27 (2.98)	8.30 (3.71)	8.07 (3.23)	7.85 (3.33)
	Denial	6.12 (2.61)	6.02 (2.62)	6.84 (3.12)	6.32 (2.80)
	Behav. Disengagement	3.82 (1.37)	4.14 (1.89)	4.69 (2.51)	4.19 (1.98)
	Mental Disengagement	8.71 (2.95)	8.75 (2.79)	8.19 (2.90)	8.56 (2.88)
	Alcohol & Drug Use	1.84 (1.05)	1.41 (0.86)	1.53 (1.00)	1.60 (0.99)

N= 315
Note. Figures in brackets are standard deviations.

Predictor Correlation Analyses

The inter-correlations between the predictor variables for work experiences (Table 3), organisational climate (Table 4) and coping strategies (Table 5) indicate that all relationships had expected directional loadings at this preliminary stage of analysis. As shown in Table 3, the highest correlations were between organisational and operational uplifts; and organisational and operational hassles respectively, both correlations were significant. Furthermore, the inter-correlations between the hassles and uplifts domains were negligible, although significant, indicating that the subscales are forming a negative (hassles) dimension, and a positive (uplifts) dimension.

Table 3. Inter-correlations between Predictor Variables for the constructs of Negative and Positive Work Experiences (N=315).

	Negative		Positive	
Predictor	Op. Hassles	Org. Hassles	Op. Uplifts	Org. Uplifts
Op. Hassles	1			
Org. Hassles	.64**	1		
Op. Uplifts	.20**	.14*	1	
Org. Uplifts	.17**	.11	.74**	1

Note. Op. = Operational Hassles/Uplifts; Org. = Organisational Hassles/Uplifts.
 Negative= Negative Work Experiences; Positive = Positive Work Experiences
 *p<.05. **p<.01

Table 4 shows that all the inter-correlations between the subscale predictors of organisational climate were significant. There are a number of strong positive correlations particularly between innovation and task orientation; and innovation and participation. However, none appear to be indicative of singularity and are therefore likely to have separable effects on the latent construct of organisational climate. This was examined further through the modelling process.

Table 4. Inter-correlations between Predictor Variables for the Construct of Organisational Climate (N=315).

Predictor	Vis	Part	Inn	TO	Int

Vision (Vis)	1				
Participation (Part)	.45**	1			
Innovation (Inn)	.45**	.70**	1		
Task Orientation (TO)	.39**	.68**	.74**	1	
Interaction (Int)	.31**	.65**	.59**	.62**	1

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

Table 5 also shows a varying range of inter-correlations between the scores of the predictors for EF and PF coping. The data reveals a significant, moderately strong positive correlation between emotional social support (sse) and focus & venting, as predictors of EF coping. The remaining predictor correlations for EF coping are moderate to weak, and two (sse & denial and sse & alcohol and drug use) are not significant. Amongst the predictors for PF coping, there is a significant strong positive correlation between active coping and planning; and significant strong to moderate positive correlations amongst the remaining predictors, with the exception of instrumental social support (ssi) & acceptance. Interestingly there is a significant strong positive correlation between instrumental and emotional social support (ssi & sse), a relationship which is quite important in terms of the structure of the final model.

Table 5. Inter-correlations between Predictor Variables for the Constructs of Emotion Focussed and Problem Focussed Coping (N= 315).

	Emotion Focussed Coping						Problem Focussed Coping						
Predictor	sse	fandv	denia	bhvds	mntds	aldr	activ	plann	suprs	restr	ssi	posre	accep
sse	1												
fandv	.65**	1											
denia	-.02	.23**	1										
bhvds	.14*	.36**	.55**	1									
mntds	.26**	.40**	.31**	.40**	1								
aldr	.03	.15*	.35**	.31**	.32**	1							
activ	.39**	.26**	.08	.08	.25**	.22**	1						
plann	.40**	.26**	.03	.05	.21**	.13*	.76**	1					
suprs	.36**	.35**	.23**	.26**	.35**	.26**	.67**	.62**	1				
restr	.24**	.14*	.20**	.24**	.33**	.20**	.61**	.56**	.64**	1			
ssi	.74**	.49**	.03	.09	.24**	.03	.50**	.49**	.43**	.48**	1		
posre	.46**	.20**	-.11	-.05	.16**	-.03	.48**	.48**	.34**	.40**	.46**	1	
accep	-.06	-.09	.01	.05	.18**	.12*	.28**	.16**	.15**	.26**	-.02	.41**	1

Note. sse= emotional social support; fandv= focus and venting; denia= denial; bhvds= behavioural disengagement; mntds= mental disengagement; aldr= alcohol or drug use.

activ= active coping; plann= planning; suprs= supression of competing activities; restr= restraint; ssi= instrumental social support; posre= positive reinterpretation and growth; accep= acceptance.

All are subscales from the COPE Inventory (Carver, Schier & Weintraub, 1989).

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

Evaluating the Components of the Model

The AMOS 4 program was used to examine the determinants of job satisfaction for all three occupational groups

combined, and the models reported in this paper employed the maximum likelihood method of estimation. The analysis indicated that for both positive (PWE) and negative work experiences (NWE), organisational factors (PWE $r = .93, p < .01$ NWE $r = .54, p < .01$) loaded onto the constructs to a greater extent than operational factors (PWE $r = .79, p < .001$, NWE $r = .25, p < .01$). The model also indicates a significant error covariance between operational and organisational hassles ($r = .65, p < .01$). As predicted, positive and negative work experiences did not have a significant correlation ($r = .12, p > .05$), indicating that they have separate effects. The model also shows that each of the organisational climate predictor variables had significant loadings on the construct and that there were no significant error covariances between them.

As predicted, the model indicated a significant positive relationship between EF and PF coping ($r = .34, p < .01$) and a substantial number of significant error covariances were also found between the predictors of both constructs. However, given the domains tapped by the predictors, none were conceptually surprising. The data indicates that for PF coping, active coping ($r = .88, p < .01$) was the predictor loading most heavily onto the overall construct, while acceptance ($r = .23, p < .01$) had the smallest loading. All PF predictor variables loaded significantly onto the construct. For EF coping, the variable with the highest loading was mental disengagement ($r = .64, p < .01$). All EF predictor variables had a significant loading, with the exception of sse ($r = .09, p > .05$). However, sse was found to load significantly on to PF coping ($r = .37, p < .01$), and due to the significant high error covariance between this predictor and that of ssi ($r = .64, p < .001$), sse was retained as a predictor of PF coping.

Evaluating the Structure of the Model

A direct model postulating no mediated relationships explained 31% of the variance in job satisfaction ($Mr^2 = .31$), and was found to be significant [$\chi^2(224) = 1057.75, p < .001$]. Examination of the fit indices (Table 6) indicated it was not a good fit to the data. The mediated structural model, the relative strength of each path, the hypothesised relationships between constructs and error covariances not already discussed are shown in Figure 2. The mediated model reveals that the proposed relationships were confirmed, with all directional influences occurring as expected. Organisational climate had significant effects on both aspects of coping, and work experiences. However, the effects for coping were not equal as was predicted and while the effects appear small, they are significant. Climate, as predicted had the strongest individual influence on job satisfaction, with mediated effects through coping and work experiences.

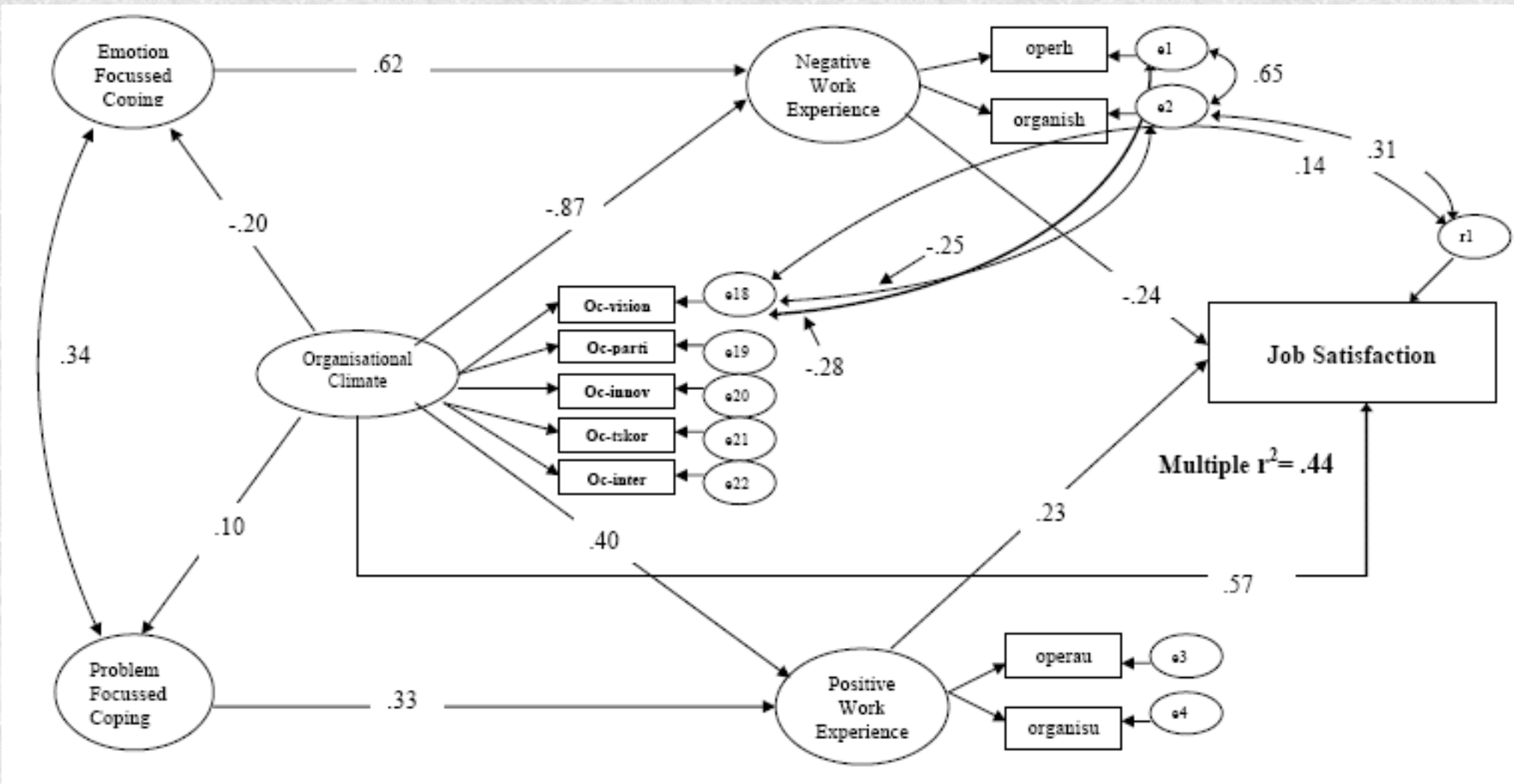


Figure 3. The overall structural model, showing the relative strength of each pathway examined.

(All pathways are significant at $p < .01$ unless otherwise specified.
Predictor loadings previously discussed have been omitted,
and predictors for coping have been omitted, in order to aid clarity).

Overall, the mediated model was found to account for 44% of the variance in job satisfaction, with the construct of organisational climate being the strongest single determinant of job satisfaction. The fit of the model, determined by chi-square, was significant [$\chi^2(208) = 516.08, p < .001$]. However, as chi-square is extremely sensitive and is substantially affected by sample size, it may not represent the fit of the model satisfactorily. The goodness of fit indices, used to supplement the chi-square evaluation, are presented in Table 6, alongside those for the direct model. The indices for the mediated model are either greater than or approaching 0.9, and therefore the mediated model offers a substantially better fit than the direct model, and can be deemed an acceptable fit to the data.

Table 6. Comparisons of Goodness of Fit Indices for the Direct and Mediated Structural Models

Index	Direct Model	Mediated Model
Normed Fit Index (NFI)	.712	.870
Relative Fit Index (RFI)	.674	.842
Incremental Fit Index (IFI)	.758	.923
Tucker-Lewis Index (TLI)	.724	.905
Comparative Fit Index (CFI)	.756	.922
RMSEA	.109 (.102-.116)	.064 (.056-.071)

Discussion and Conclusions

The results indicate the hypothesised model adequately reflects the data, and that all relationships were occurring in the expected directions. The structure of the proposed mediated model was therefore confirmed. As predicted, employees engaged in both EF and PF coping strategies, and there was a positive relationship between the two constructs, thereby supporting hypothesis 1. Organisational climate had a negative influence on EF coping, resulting in an increase in negative work experiences. Similarly, climate had a direct positive influence on PF coping, resulting in an increase in positive work experiences. Thus, the second hypothesis was also supported.

In addition to its influence on coping, organisational climate had a direct negative influence on negative work experiences and a direct positive influence on positive work experiences. However, these effects were not equal as predicted, and only partial support was attained for hypothesis 3. Positive and Negative work experiences were found to make relatively equal contributions to job satisfaction, as predicted, these influences were orthogonal and supported hypothesis 4. Finally, organisational climate was also found to have a significant direct effect on job satisfaction and, as predicted in hypothesis 5, made the strongest contribution. The results therefore indicate at least partial support for all hypotheses, providing further confirmation that the structure of the model investigated in this study is valid.

Organisational Influences on Stress and Well-being

The predictive value of organisational climate in determining job satisfaction, indicates that management, and the procedures, policies and organisational structure it promotes, can exercise a powerful influence over the way in which employees experience adverse events. Paton, et al., (2003) argue that the training and development strategies; and the culture or climate of an organisation represent a means for facilitating capabilities within employees to impose and promote coherence and meaning onto atypical, adverse experiences. This highlights one of the reasons the organisation has such a considerable influence on the occupational experiences of employees in the emergency services. It is the organisation itself that provides the context within which personnel interpret their experiences (Violanti et al., 2000).

Paton, et al., (2003) state that organisational processes are the most important determinant of employee well-being,

even after considering the effects of operational experiences. This contention is supported by the model examined in this paper. The findings illustrate the potential of the organisation to construct both positive and negative experiences and consequences for employees. That is, protective service organisations can potentially foster both beneficial and harmful effects on the wellbeing of their employees. The implication then, is that management plays a key role in the effective facilitation of staff adaptability and resilience, but often lack the capability or willingness to realise their potential in this context (Paton & Violanti, 1996). The impact of organisational factors, at all levels of occupational experience, demonstrate that there is the potential for management to instil preventative mechanisms in employees at each of these levels. However, the necessity for and importance of tertiary intervention strategies should not lose value in this process - a balance between the two approaches of prevention and intervention is vital.

The organisation has the power to adapt and change intervention and prevention strategies in order to best meet the needs of their employees and the coherence of operational guidelines and organisational policy allows the actions of employees to be grounded in 'certainty of purpose, identity, context and future' (Paton et al., 2003, p. 127). That is, sense of coherence serves to bind the organisation and its officers together by providing clear and precise knowledge and expectation of the structure, processes and culture of the organisation, and understanding of their place within it. Coherence is particularly necessary amongst the protective services in order to ensure that employees within these occupations believe that their actions can provide a substantial benefit in the situations they encounter operationally.

The acknowledgment of the strength of organisational influences highlights the necessity for, and the feasibility of, interventions prior to exposure (i.e., primary prevention). This can be facilitated, at the organisational level, through selection, training and organisational development, rather than waiting until after exposure (Violanti et al., 2000). Furthermore, Paton et al., (2003) contend that the organisational characteristics and practices that are a requirement of sustaining and promoting resilience can be achieved through organisational design and the refinement of management development strategies. The goal of these must be to create practices, procedures and a culture that minimises and reduces the potential for adverse consequences and maximises the potential for adaptation and post-trauma growth (Paton, 2006). Furthermore, particularly for emergency workers, these must be directed at both the larger organisational level, as well as at team and individual levels, as the implementation of resilience and adaptation strategies at one level will not necessarily facilitate these consequences in another. It is also important that the implications of the development of a more salutogenic culture is carried over into the design and delivery of tertiary (e.g., counselling) intervention (Paton, 2006).

The Independence of Positive and Negative Experience

Evidence for the efficacy of salutogenic conceptualisations of positive and negative experiences as separable is provided by the non-significant relationship between positive and negative work experiences. In practice this means that while it is possible for employees exposed to trauma to experience many hassles and few uplifts, or vice versa, the level of an employee's positive (or negative) experience is not determined by a corresponding state of negativity (or positivity). Therefore, the negative experiences reported by employees are likely to reveal little about their coinciding positive experiences (Hart, et al., 1995), and undermines the utility and validity of representing positive and negative experience on a continuum. The separability of positivity and negativity found in this study is consistent with previous findings which have shown that positive work experiences increase well-being, but have little effect on psychological distress, while negative experiences increase distress, but have little impact on well-being (Hart, 1999; Hart, et al., 1995). Thus both positive and negative aspects of the occupational role of employees must be managed independently, again reinforcing the notion that management have a key role to play in the psychological outcomes for employees. That is, by focussing only on relieving the negative aspects of the occupation, such as those to do with traumatic exposure, the maintenance and facilitation of the positive outcomes of the job may be neglected.

A key aspect of the salutogenic paradigm and the approach of positive psychology to stress and trauma exposure is epitomised in this separation of positive and negative experiences. While continuing to acknowledge the salience and the impact of operational trauma exposure as a potential stressor, the paradigm, perhaps more importantly, emphasises the notion that exposure to adversity can act as a stimulus for growth in the individual, and facilitate the development of resilience. It is a challenge to management to recognise and promote these aspects of stress and trauma. Gist and Woodall (1998) argue that for most personnel in occupations involving high levels of exposure to critical incidents, the encounter is not a source of threat or loss, but is perceived as a challenge in which they are able to utilise their skills within the very situations they have been trained to manage. Such exposure is central to the individual's personal and professional identity and stems from genuine, routine occupational demands (Paton et al., 2003).

Limitations and Directions for Future Research

The model indicates that 44% of the variance in job satisfaction is accounted for by the model presented in this investigation. While this is an adequate result, it indicates that there is a substantial portion of the variance that remains unexamined. It is likely that the inclusion of individual and group constructs beyond those utilised here would decrease this unexplained variance (see Hart & Cooper, 2001). In particular, personality factors, multiple indicators of well-being, the inclusion of measures of deficit outcomes, and qualitative data collection techniques would possibly improve the predictive value of the model. In addition, a longitudinal, rather than cross-sectional design is required to accurately predict the long term effects, relationships and outcomes of a model such as the one examined here.

There is a need for research that examines how the fluctuations in organisational practices over time influence employee's experiences of well-being. The study presented here is cross-sectional in design, and so no claims about predictive or causal relationships can reliably be made. In order to further examine the role of both individual and group factors, and to aid understanding of the resilience and vulnerability processes in the protective services, longitudinal research designs are essential. It is necessary that these investigations examine the ways in which employees experiences change as a function of both the organisation and from an individual perspective. Particular emphasis needs to be placed on examining the influences of personality traits on the effectiveness of individual coping characteristics, and how these may be facilitated by training programs in these occupations.

In summary, this study illustrates how coping, daily work experiences and organisational climate combine to influence job satisfaction. By far the strongest and most prominent predictor of satisfaction in this study was climate, which highlights the prominence of the role played by organisations in determining the well-being of their employees. Despite the fact that no reliable predictive inference can be made from this investigation, the strength of this study is that it acknowledges, and provides further support for the contention that organisational practices are fundamental in determining employee experiences within an emergency services framework. The paper also strengthens the argument for a more holistic approach to the prevention of work-related stress and psychopathology.

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