

Job uncertainty and personal control during downsizing: A comparison of survivors and victims

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RUNNING HEAD: Job Uncertainty and Personal Control During Downsizing

JOB UNCERTAINTY AND PERSONAL CONTROL DURING DOWNSIZING:

A COMPARISON OF SURVIVORS AND VICTIMS

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Abstract

The present study developed and tested a model of job uncertainty for survivors and victims of downsizing. Data were collected in a public hospital at three times: immediately before the announcement of the redeployment of staff, during the implementation of the downsizing, and towards the end of the official change program. As predicted, employee attitudes improved across the three stages of the change and, despite major job loss and restructuring, survivor levels of job uncertainty and personal control stabilized after the downsizing. Two key differences were found between survivors and victims during the implementation of the downsizing. First, victims of the downsizing reported lower levels of personal control than survivors. Second, the association between job uncertainty and emotional exhaustion was fully mediated by perceptions of control for survivors of downsizing, but only partially mediated for victims. We discuss the implications of our results for strategically managing uncertainty during and after organizational change.

Keywords: Organizational change, downsizing, survivors, uncertainty, control

Job uncertainty and personal control during downsizing:

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Downsizing and restructuring have become established concepts in the lexicons of organizations and their members (e.g., Armstrong-Stassen, 2002). Although these strategies are typically undertaken to improve organizational efficiency (e.g., Shaw & Barrett-Power, 1997), many downsizing and restructuring efforts are undermined by the negative outcomes experienced by “surviving” employees and “victims” of downsizing alike (e.g., Latack, Kinicki & Prussia, 1995; also see Thornhill & Saunders, 1998). Recognizing this, a body of research has examined factors that influence employee adjustment to downsizing, including job insecurity (e.g., Armstrong-Stassen, 1998), work ethic (e.g., Brockner, Grover & Blonder, 1988), empowerment (e.g., Niehoff, Moorman, Blakely & Fuller, 2001), and workload (e.g., Greenglass & Burke, 2000).

One aspect of employees’ downsizing and restructuring experience that has received less attention is employee uncertainty (Kivimaki et al., 2001). Redeployment and retrenchment announcements create stressful environments for employees as they struggle with uncertainties surrounding the security of their position in the organization (Jackson, Schuler & Vredenburgh, 1987). In these unpredictable and uncertain working environments, employees are expected to continue their jobs amidst changes to work roles, organizational structures and workplace culture (Jackson et al., 1987; Schweiger & Denisi, 1991). Despite the reality of this situation for many organizations, there has been a limited research focus on how job uncertainty is conceptually related to other negative outcomes and what factors might mediate its impact during downsizing (see Ashford, Lee & Bobko, 1989). In addition, most studies of uncertainty in other change contexts are cross-sectional in nature (e.g., Ito & Brotheridge, 2001; Maurier & Northcott, 2000), and most studies of downsizing are either conducted after layoffs have occurred (e.g., Greenglass & Burke,

2000; Niehoff et al., 2001), or only examine the adjustment of survivors (e.g., Kernan & Hanges, 2002) or victims (e.g., Bennett, Martin, Bies & Brockner, 1995). The extent to which survivors and victims experience job uncertainty and its correlates throughout different stages of downsizing may have important implications for administrators of change as they seek to manage the negative effects of downsizing on employees (see Brockner, 1992).

Building on previous research, the present study utilized a repeated cross-sectional design to examine the adjustment of victims and survivors in a large psychiatric hospital undergoing downsizing and restructuring. Levels of job uncertainty were measured immediately before the announcement of the redeployment of staff, during the implementation of the change as victims of downsizing continued working alongside survivors, and one and a half years later as survivors implemented the final stages of the official change program. In each phase of the study, we explored the relationship between job uncertainty and three conceptually related constructs: personal control, emotional exhaustion and job satisfaction. This design allowed us to track the differential effects of downsizing on survivors' and victims' levels of job uncertainty and personal control, and in doing so, illustrate the importance of uncertainty management throughout different stages of downsizing.

Job Uncertainty and its Correlates During Downsizing

According to Milliken (1987), uncertainty involves an individual's perceived inability to accurately predict the consequences of choices or decisions. Uncertainty is an aversive state that arises due to a lack of sufficient information, or the inability to discriminate between relevant and irrelevant information (Gifford, Bobbitt & Slocum, 1979). Our focus is on job-related uncertainty, which refers to employees' uncertainty about aspects of their immediate work situation such as job skills and promotion

opportunities (Buono & Bowditch, 1989; Jackson et al., 1987). Previous research in other change contexts suggests that job uncertainty is linked to higher levels of employee stress, reduced job satisfaction and job commitment, and an increased desire to leave the organization (Ashford, 1988; Ashford et al., 1989; Matteson & Ivancevich, 1990; Pollard, 2001). The model of job uncertainty tested in the current research extends a prior analysis of uncertainty (Bordia et al., under review) by examining the mediating role of personal control on the relationship between job uncertainty and emotional exhaustion throughout different stages of downsizing, as well as the overall levels of job uncertainty and its correlates for survivors and victims. The model is based on five propositions: (1) job uncertainty is negatively related to personal control, (2) personal control is negatively related to emotional exhaustion, (3) job uncertainty is positively related to emotional exhaustion, (4) the relationship between job uncertainty and emotional exhaustion is mediated by personal control, and (5) emotional exhaustion is negatively related to job satisfaction.

First, job uncertainty is negatively related to personal control. As Terry and Jimmieson (1999) assert, knowledge of outcomes (i.e., the opposite of uncertainty) is a pre-requisite to the ability to influence the outcomes. Similarly, Berger and Bradac (1982) claim that knowledge is essential to gain control and achieve desired aims from interpersonal interactions. Several authors have drawn links between uncertainty and control in the context of organizational change. Bastien (1987) noted that employee uncertainty in a merger is associated with a change in locus of control from within the individual (in their known organizational context) to outside the individual (in an unknown organizational context). If employees do not know the nature and consequences of the change upon their job, status, or reporting structures, they often feel ill equipped to deal with the change; in other words, they lack personal control over the change.

Reflecting this, studies report a negative relationship between job uncertainty and personal control, as well as control related constructs such as feelings of powerlessness (Ashford et al., 1989; Parker, Chmiel & Wall, 1997). In the context of downsizing and restructuring, we therefore predicted that job uncertainty is related to decreased personal control.

Second, personal control is negatively related to emotional exhaustion. In general, the more control we have over stressful events, the less harmful the consequences of the stressors. The work-control literature shows that a sense of control is desirable when individuals are required to cope with a threatening, uncertain, or aversive event (Ganster & Fusilier, 1989; Greenberger & Strasser, 1986). Studies that have examined employee adjustment to change have supported the importance of control appraisals in coping with change (Karasek, 1979; Lazarus & Folkman, 1984; Mishra & Spreitzer, 1998). Low levels of control have been associated with learned helplessness (Martinko & Gardner, 1982), decrements in performance (Bazerman, 1982), and poorer psychological and physiological well-being (Terry & Jimmieson, 1999). Other studies of strategies for coping with stress during organizational change have examined how individuals regain a sense of control by using a range of emotion-focused and problem-focused coping strategies (Ashford, 1988; Terry & Callan, 1997). Thus, based on previous research on work control, we predicted that personal control is negatively related to emotional exhaustion during downsizing.

Third, job uncertainty is positively related to emotional exhaustion. Uncertainty is a stressful state in and of itself. The inability to predict one's environment is maladaptive because one cannot adequately prepare for, or deal with, the unknown. This idea is inherent in several theories that treat uncertainty reduction as a motivational force for individual and group behavior (e.g., Berger & Bradac, 1982; Hogg & Mullin, 1999; Kramer, 1999). The change literature has also emphasized the psychological discomfort associated with uncertainty. For instance, Miller and Monge (1985) found that uncertainty

was related to anxiety. Schweiger and Denisi (1991) found that uncertainty had a moderate correlation with stress, averaging around .30 across several time periods. Similarly, Ashford (1988) found relationships between uncertainty and measures of tiredness, depression, and nervousness. Based on these findings, in a context of downsizing and restructuring, we predicted that job uncertainty is positively related to emotional exhaustion.

Fourth, the relationship between job uncertainty and emotional exhaustion is mediated by personal control. Some authors have proposed that control moderates, or buffers, the negative impact of workplace stressors such as high workload (Karasek, 1979; Terry & Jimmieson, 1999). A number of investigators have also suggested that the association between uncertainty and stress is mediated by feelings of personal control (DiFonzo & Bordia, 2002; Hogg & Mullin, 1999; Ito & Brotheridge, 2001; Lazarus & Folkman, 1984). However, there is a lack of research that specifically examines the mediating role of personal control between job uncertainty and the well-being of victims and survivors of downsizing (see Ashford, 1988; Ito & Brotheridge, 2001). As mentioned above, we predicted that job uncertainty is an aversive state that can lead to emotional exhaustion by itself. Additionally, we predicted that job uncertainty is also aversive because it threatens peoples' sense of personal control over their actions (Hogg & Mullin, 1999). In other words, we predicted that job uncertainty has both direct and indirect effects (i.e., mediated by personal control) on emotional exhaustion during downsizing.

Finally, emotional exhaustion is negatively related to job satisfaction. At the individual level, one of the most harmful impacts of organizational change is the reduced psychological well-being of some employees, as evidenced by heightened levels of emotional exhaustion and other stress symptoms (Ashford, 1988; Jackson et al., 1987; Miller & Monge, 1985; Schweiger & Denisi, 1991). Uncertainty and lack of control over

issues of great personal significance (e.g., work roles) can lead to a feeling of being overwhelmed by events. The strain caused by change leads to lowered job satisfaction and higher intentions to leave the organization (Johnson, Bernhagen, Miller & Allen, 1996; Schweiger & Denisi, 1991). For example, Miller, Ellis, Zook, and Lyles (1990) found that emotional exhaustion at work led to lower job satisfaction. Other research in various change contexts has found that better levels of mental and physical health indicators (Nelson, Cooper & Jackson, 1995) and less psychological strain (Parker et al., 1997) are correlated with higher levels of job satisfaction. When individuals feel emotionally exhausted, they are less effective in fulfilling their work obligations and can be disengaged from work (Leiter & Harvie, 1998). Thus, we predicted that the emotional exhaustion caused by heightened job uncertainty and lack of personal control during downsizing is negatively related to job satisfaction.

The model of job uncertainty outlined above may help to explain why downsizing tends to be more stressful for some employees than others (see Pollard, 2001). However, it is also important to recognize that organizational change is a dynamic process that unfolds over a period of time (Armenakis, Harris & Field, 2001). As such, different stages of downsizing may influence the levels of job uncertainty and personal control experienced by employees, as well as the extent to which control mediates the negative effects of job uncertainty on emotional exhaustion. To this end, Isabella (1990) identifies three stages of change that can be usefully applied to downsizing: the anticipation, implementation, and aftermath stages.

Anticipating Downsizing

In the anticipation stage of downsizing, employees are typically aware of impending layoffs but do not know whether or not they have a job in the downsized organization. Not surprisingly, this situation creates a highly uncertain environment for

employees, which affects not only their levels of job security (Armstrong-Stassen, 2002), but also their ability to predict the nature of their working environment in the new organization (e.g., Jackson et al., 1987). Coupled with the often disempowering experience of downsizing (see Mishra & Spreitzer, 1998), these heightened levels of uncertainty can lead to perceptions of a lack of personal control over the future. For instance, Fugate and colleagues (Fugate, Kinicki & Scheck, 2002) found that levels of personal control were lowest during the anticipation stage of a merger, where levels of uncertainty were high because employees were expecting job losses. Personal control increased over time as employees learnt about how the change would affect them. Other research has shown that uncertainty and stress are heightened during the anticipation and implementation stage of change compared to the aftermath (Fugate et al., 2002; Parker et al., 1997; Pollard, 2001). In the present study, we predicted that employees would experience high levels of job uncertainty and low levels of personal control in the anticipation stage of downsizing, which would lead to high levels of emotional exhaustion and low levels of job satisfaction.

As mentioned previously, there is evidence to suggest that the relationship between uncertainty and emotional exhaustion is mediated by control (e.g., Ito & Brotheridge, 2001). However, whether or not personal control fully mediates the relationship between job uncertainty and emotional exhaustion may depend on the stage of downsizing and the corresponding levels of job uncertainty and personal control. Karasek (1979) proposed that employees can reduce the negative effects of job strain only when they have adequate levels of control over work demands (Karasek, 1979). Relatedly, it is possible that when perceptions of job uncertainty are high and perceptions of personal control are low (i.e., inadequate), employees' levels of personal control are not sufficient to fully mediate the relationship between perceptions of job uncertainty and emotional exhaustion. If this is the case, then in the anticipation stage of downsizing, when job uncertainty is high and

personal control is low, we would expect job uncertainty to have both a direct effect and an indirect effect on emotional exhaustion (i.e., mediated by personal control).

As downsizing progresses and employees learn whether they will be staying or leaving the organization, we predicted that levels of job uncertainty would decrease and levels of personal control would increase. Corresponding to the reduction in job uncertainty and increase in personal control, emotional exhaustion should decrease and job satisfaction should increase in the implementation stage of downsizing. At this time in the change process, employees learn of their employment status in the downsized organization and two distinct groups of employees emerge: survivors, who remain with the organization, and victims, who leave the organization as their employment contracts are terminated.

Implementing Downsizing: Survivors and Victims

In an examination of victims' and survivors' responses to downsizing, Armstrong-Stassen (1997) found that victims engaged in less effective coping and were more stressed than survivors. However, in a more recent study Armstrong-Stassen (2002) observed that there were no differences in levels of perceived job security between victims and survivors. Although levels improve from the anticipation stage, job uncertainty and personal control issues can continue to have an impact on victims of downsizing during the implementation of change (Thornhill & Saunders, 1998). Even though they have received notice of redundancy, victims may still feel uncertain about employment obligations and further redeployment options (Doherty, Tyson & Viney, 1993). These issues may be particularly salient for victims who continue working in the organization until their contract expires. Survivors of downsizing also experience adverse effects as they are confronted with uncertainties about new or altered job responsibilities, changes in career paths, and work group changes (Brockner, 1992; Kernan & Hanges, 2002).

Therefore, although we expected overall levels of job uncertainty to decline between the anticipation and implementation stages of downsizing, we did not predict differences in survivors' and victims' levels of job uncertainty during the implementation of change. It was expected that both groups of employees would be faced with similar levels of job uncertainty as they performed their jobs in a state of organizational flux.

Differences were expected, however, in perceptions of personal control between survivors and victims of downsizing. Losing one's job is damaging to an employee's sense of personal control over the future. Learning that they are no longer required in the new organization can be a highly disempowering experience for victims of downsizing (see Mishra & Spreitzer, 1998). Research has indicated that during downsizing, victims' perceptions of personal control remain important as they contribute to more effective coping strategies (Bennett et al., 1995; Latack et al., 1995; Leana & Feldman, 1990). Although they are often required to remain with the organization until their contract expires, victims of downsizing may feel less able to make decisions, solve difficulties, and rise to work challenges. We therefore predicted that survivors would feel more personal control over the future than victims in the implementation of downsizing. As a result, we also expected differences in the extent to which personal control would mediate the effects of job uncertainty on emotional exhaustion for survivors and victims. Due to the relatively inadequate levels of personal control experienced by victims, we expected that perceptions of personal control would partially mediate, but would not fully mediate the negative effects of job uncertainty on emotional exhaustion. In contrast, however, and due to their comparatively high (i.e., adequate) levels of personal control, it was proposed that personal control would fully mediate the relationship between survivors' levels of job uncertainty and emotional exhaustion.

Aftermath of Downsizing

Some studies indicate that survivors show reduced levels of job satisfaction, organizational commitment and work effort in the aftermath of downsizing (Brockner et al., 1988; Campbell-Jamison, Worrall & Cooper, 2001). These negative reactions may be due to a loss of trust in the organization (Niehoff et al., 2001), increased workload (Greenglass & Burke, 2000) and increased job insecurity (Hellgren, Sverke & Isaksson, 1999; Kivimaki et al., 2001). The negative responses of employees who retain their job after downsizing are sometimes referred to as “survivor syndrome” (e.g., Baruch & Hind, 2000); however the research examining survivor responses to downsizing is inconclusive. Other studies show that the most negative impact on survivor attitudes occurs immediately post-downsizing, but in the aftermath of downsizing, attitudes return to pre-downsizing levels (Armstrong-Stassen, 2002; Parker et al., 1997) or may even improve attitudes (Baruch & Hind, 2000).

Although the findings relating to other employee attitudes are somewhat mixed, research in other change contexts suggests that employees’ levels of uncertainty and control stabilize or improve after major change. Nelson et al. (1995) found no significant changes in uncertainty and control over time in a longitudinal study of the impact of privatization and reorganization. Pollard (2001) found that levels of tense arousal, self-reported mental health and systolic blood pressure were highest just prior to and four months after reorganization, and levels of uncertainty were positively associated with these variables. Other research has shown that uncertainty and stress are elevated during change, but then decrease or stabilize after the implementation of change (Armstrong-Stassen, 2002; Parker et al., 1997; Pollard, 2001; Schweiger & Denisi, 1991). For instance, Parker and colleagues found that employee control, role clarity and participation had increased due to improvements to work characteristics. Armstrong-Stassen (2002) reported that levels of job security for survivors in the post-downsizing period were

significantly higher than during any of the three downsizing stages. This pattern of improvement is particularly obvious in organizations that effectively and actively manage organizational change as survivors attempt to reduce uncertainty about their jobs and futures (Campbell-Jamison et al., 2001; Greenglass & Burke, 2000; Parker et al., 1997).

We predicted that after the implementation of the change, employee levels of job uncertainty would decrease and levels of personal control would increase as survivors become familiar with the new organization, job roles and tasks. It was expected that decreased job uncertainty and increased personal control would be associated with decreased stress and improved job satisfaction in the aftermath of downsizing. Due to the relatively low levels of job uncertainty and high levels of personal control, we proposed that perceptions of personal control would be adequate and therefore would fully mediate the negative effects of job uncertainty on emotional exhaustion.

Summary and Hypotheses

The current research utilized a repeated cross-sectional design to examine the relationships between job uncertainty, personal control, emotional exhaustion and job satisfaction, as well as overall changes in the above variables over three stages of downsizing. Based on previous research and theory (e.g., Pollard, 2001), we proposed that levels of job uncertainty and emotional exhaustion would decrease, and levels of personal control and job satisfaction would increase over the three stages of downsizing (Hypothesis 1). Perceptions of personal control were expected to mediate the relationship between job uncertainty and emotional exhaustion, however, we proposed that the nature of the mediation would vary depending on the downsizing stage. In the anticipation stage of downsizing, due to high levels of job uncertainty and low levels of personal control, we predicted that perceptions of personal control partially mediate, but do not fully mediate the negative effects of job uncertainty on emotional exhaustion (i.e., job uncertainty has

both direct and indirect effects) (Hypothesis 2). During the implementation stage of downsizing, we proposed that survivors and victims experience the same levels of job uncertainty but victims experience lower levels of personal control than survivors (Hypothesis 3). Due to their comparatively high levels of personal control, we proposed that personal control would fully mediate the negative effects of job uncertainty on emotional exhaustion for survivors (Hypothesis 4), but only partially mediate the negative effects for victims (i.e., job uncertainty has both direct and indirect effects) (Hypothesis 5). In the aftermath of downsizing, when levels of job uncertainty and personal control stabilize, we predicted that personal control would fully mediate the negative effects of job uncertainty on emotional exhaustion (Hypothesis 6). Throughout all stages of the change, we predicted that emotional exhaustion would be negatively associated to job satisfaction (Hypothesis 7).

Method

Participants

Data were collected three times from employees at a large psychiatric hospital undergoing large-scale restructuring and downsizing. The changes undertaken are best described as transformational change, where structural and strategic changes ripple down to affect fundamental changes in employees' roles and tasks (Armenakis et al., 2001). The changes included the implementation of a new model of service delivery based on a multidisciplinary and client-focused approach to mental healthcare, together with a physical relocation to new buildings constructed on site. This resulted in major work redesign and reallocation of roles within teams, as well as significant workforce restructuring to support the service model. The changes included a reduction of the hospital's work force from 660 to 450 employees. After a detailed performance review and selection process, victims of the downsizing were told that their contracts would not

be renewed and survivors of the downsizing were assigned to redefined positions in the new structure. The structure was designed to reflect the new model of service delivery and was progressively implemented over an 18-month period to coincide with the completion of the building program. Consequently, survivors and victims continued working together for a period of up to 18 months. A significant number of patients were reassigned to community-based care, and the hospital reduced the number of staff employed on site by approximately one third of its former number over a period of two years. Participants represented all major professions (e.g., nurses, doctors, allied health, administrative officers, support staff) and organizational levels (e.g., senior management, supervisors, non-supervisors).

Sample 1 was collected two weeks before the announcement of major staff redeployment decisions. The hospital had developed the new model of service delivery, and had matched a set of competency profiles required for positions in the new facility. Redeployment decisions were being made on the basis of employees achieving specific criteria in each of the job competencies. Employees had completed a detailed self-assessment of their job performance, which was compared to ratings made by their direct supervisors. Based on this assessment, staff were either assigned to positions in the new structure, redeployed to positions in community based care centers, redeployed to health services positions elsewhere, or were offered voluntary redundancy. Surveys were distributed to all staff ($N=660$). A total of 222 participants returned completed surveys; 47.7% ($N = 106$) of the sample was male, and 46.1% ($N = 103$) female (13 participants did not specify their sex). The age range was between 18 and 63, with a mean age of 42.6 ($SD = 9.49$) years. Sample 1 was used in a separate cross-sectional analysis to test a model examining the effects of communication effectiveness on employee uncertainty, and the extent to which control mediated the effects of uncertainty on emotional exhaustion (see

Bordia et al., under review). The current paper extends the previous analysis in a number of important ways. First, the mediating role of personal control was examined across three stages of the change, and differential effects (either full or partial mediation) were predicted based on the expected levels of perceived job uncertainty and personal control. Second, and because of the multi-wave approach, we were able to track changes in levels of job uncertainty and personal control over time, as well as differences between survivors' and victims' levels of job uncertainty and personal control.

Sample 2 was collected in August 2000, approximately 6 months after redeployment decisions had been announced. By this stage, employees had been reassigned to new teams, and were beginning to operationalize the new service model. Employees at this time in the change process included those who knew they had a continuing appointment (from success in the competency matching process), and others who were unsuccessful but were still working at the hospital. A total of 660 surveys were administered to employees. The sample consisted of 189 participants; 55% ($N = 104$) were male, and 43.4% ($N = 82$) were female (3 participants did not specify their sex). The age range was between 20 and 67, with a mean age of 41 ($SD = 10.67$) years. The sample included individuals who had a job in the new hospital ($N = 109$), and individuals who no longer had a job ($N = 76$).

Sample 3 was collected approximately one and a half years after the redeployment decisions had been announced, by which time the transition plan was underway. Employees on continuing appointments were working in new work teams under the new model of service delivery, and victims of the downsizing were no longer employed at the hospital. Due to building delays, however, some employees had not yet started work in the newly constructed facility. Surveys were distributed to all staff ($N=450$) and a total of 142 completed surveys were returned for analysis; 55.6% ($N = 79$) were male, and 42.3% ($N =$

60) were female (3 participants did not specify their sex). The age range was between 21 and 68, with a mean age of 41 years ($SD = 9.42$).

Procedure

At each sampling period (Time 1, 2 and 3), an information sheet advising participants about the survey and its aims was forwarded to all employees. In this information sheet, employees were assured of the confidentiality of their responses, and were told that a short summary outlining the main findings would be made available to them. The following week, a confidential self-report questionnaire was distributed to all employees in the organization. A second information sheet explaining the aims of the survey and inviting voluntary participation accompanied the survey. Employees were told that the survey was designed to gather important information about employee attitudes and perceptions in the organization. Completed surveys were returned in a sealed envelope via internal mail, or directly to the researcher or the research office based at the hospital.

Measures

The surveys contained scales for each of the variables in the model. All items were anchored by a 5-point response scale, except that Time 1 job uncertainty, personal control and emotional exhaustion were measured using a 7-point response scale. These items were rescaled to a 5-point scale.

Job uncertainty. Job uncertainty during change was measured with five items selected from scales developed by Bordia et al. (under review) and Schweiger and Denisi (1991). The items asked respondents to indicate how uncertain they were regarding outcomes of the change for various job-related dimensions (e.g., Whether you will have to learn new job skills; the level of influence you will have over changes in your job) on a 5-point response scale ranging from 1 (*very little uncertainty*) to 5 (*very great uncertainty*).

Personal control. Personal control was measured with three items taken from Bordia et al. (under review). The scale was designed to measure global perceptions of employees' perceived control over their future in the organization (e.g., What I do at work is largely under my control; I feel I can influence the nature of change in my work unit) and was rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Emotional exhaustion. The emotional exhaustion sub-scale of the Maslach Burnout Inventory was used to measure emotional exhaustion (Maslach, 1982; Maslach & Jackson, 1986). Emotional exhaustion indicates an individual's stress reaction to social demands at work (Leiter, Clark & Durup, 1994), and is a measure of overextension and depletion of individuals' physical and psychological resources (Leiter & Harvie, 1998). Miller et al. (1990) have previously used the seven-item scale (e.g., I feel used up at the end of the day; I feel burned out from my work) in the change communication literature. We used a 5-point response format ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Job satisfaction. At Time 1, job satisfaction was measured by a 3-item measure of global job satisfaction developed by Warr and Payne (1983). The items asked respondents to indicate their levels of enjoyment, satisfaction, and happiness with their job. At Times 2 and 3, job satisfaction was assessed with five items (e.g., All things considered, how satisfied are you with your job?; How satisfied are you with the quality of the resources available to you to do your job well?) adapted from those developed by Caplan, Cobb, French, Van Harrison and Pinneau (1975). The items were anchored by 1 (*very dissatisfied*) to 5 (*very satisfied*).

Self-report data are vulnerable to common method bias, which may inflate observed relationships among variables. Harman's one-factor test was conducted to examine the influence of common method variance (CMV; Podsakoff & Organ, 1986). A principal components exploratory (varimax rotation) factor analysis was conducted at each

time and involved a one-factor model of all items measuring the four variables (using the eigenvalue greater than 1 criterion). At Time 1, a four-factor solution was obtained, which explained 66.75% of the variance. All of the items loaded on their predicted factor, and factor loadings ranged from .52 to .89. At Time 2, a four-factor solution was obtained, which explained 63.17% of the variance. All of the items loaded on their respective factor and factor loadings ranged from .53 to .83. At Time 3, a four-factor solution was obtained, which explained 61.56% of the variance. All of the items, except one item for job uncertainty (loading of .15), loaded on their predicted factors. Therefore, job uncertainty at Time 3 was calculated using the remaining four items need to think whether we should have used just 4 items at each time, instead of just time 3. The remaining factor loadings ranged from .59 to .85. Thus, the one-factor model was rejected for each phase of the data collection and we retain confidence that our results are not due to common method variance.

Results

Table 1 provides the means, standard deviations, inter-correlations and internal consistency alphas for all of the variables. Alphas were all above .76. The level of job uncertainty was above the midpoint of the scale at Time 1, and was below the midpoint of the scale at Times 2 and 3. Levels of personal control were below the midpoint of the scale at each time, and levels of emotional exhaustion were at the midpoint of the scale at Time 1, decreasing below the midpoint at Times 2 and 3. Job satisfaction levels were below the midpoint of the scale at Time 1, increasing slightly but maintaining a level just below the midpoint at Times 2 and 3.

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At each time, there were negative correlations between job uncertainty and personal control and job satisfaction, and between personal control and emotional

exhaustion, and between emotional exhaustion and job satisfaction. There were positive correlations between job uncertainty and emotional exhaustion. The correlations were all moderate in size (the highest being $-.57$ between emotional exhaustion and job satisfaction at Time 1).

Changes Over Time

A multivariate analysis of variance was conducted to examine changes in job uncertainty, personal control, emotional exhaustion and job satisfaction over time (Hypothesis 1). The analysis showed a significant multivariate effect for time (Wilks's Lambda = $.50$), $F(8, 123) = 15.11$, $p < .001$. Examination of the univariate results showed that there was a significant effect of time for job uncertainty, $F(2, 260) = 23.45$, $p < .001$, personal control, $F(2, 260) = 23.23$, $p < .001$, emotional exhaustion, $F(2, 260) = 4.60$, $p < .05$, and job satisfaction, $F(2, 260) = 33.20$, $p < .001$. Pairwise comparisons revealed that job uncertainty was significantly higher at Time 1 compared to Times 2 and 3, and was significantly higher at Time 2 compared to Time 3. Personal control was significantly lower at Time 1 than Times 2 and 3, and personal control at Time 2 was significantly lower than personal control at Time 3. Emotional exhaustion was significantly higher at Time 1 than Times 2 and 3, but there was no significant difference between Time 2 and Time 3 levels of emotional exhaustion. Job satisfaction was significantly lower at Time 1 compared to Times 2 and 3, and was significantly lower at Time 2 compared to Time 3. Therefore, at the organizational level, these results provide strong support for Hypothesis 1, which proposed that levels of job uncertainty, personal control, emotional exhaustion and job satisfaction improve over the stages of the downsizing.

To account for possible changes in perceptions of job uncertainty and its correlates that may have arisen due to the layoffs at Time 2, we conducted an additional analysis to compare attitudes of survivors at Time 2 and Time 3. The multivariate effect for time was

not significant (Wilks's Lambda = .97), $F(4, 226) = 11.92, p < ns$. Therefore, although the data at the organizational level indicates that employee attitudes and perceptions improved from Time 2 to Time 3, the analysis comparing survivors at Time 2 with survivors at Time 3 indicates that employee attitudes and perceptions stabilized across this time period.

A multivariate analysis of variance was conducted at Time 2 to compare the levels of job uncertainty, personal control, emotional exhaustion, and job satisfaction between individuals who had a job in the new hospital (i.e., survivors) and those who did not (i.e., victims). There was a statistically significant multivariate effect for job status (Wilks's Lambda = .88), $F(8, 334) = 2.73, p < .01$. At the univariate level, the effect of job status was only significant for personal control, $F(2, 170) = 7.47, p < .001$. As presented in Table 2, survivors reported higher levels of personal control than victims. Survivors and victims reported similar levels of job uncertainty, satisfaction, and emotional exhaustion. These results support Hypothesis 3, which predicted that survivors experience higher levels of personal control but the same levels of job uncertainty as victims.

INSERT TABLE 2 ABOUT HERE

Regression Analyses

Mediated regression analyses were conducted to test the associations among job uncertainty, personal control and emotional exhaustion at each time, and for survivors and victims of the downsizing at Time 2. Following Baron and Kenny's (1986) procedure, three separate regression equations were estimated to test for the mediating role of personal control upon the relationship between job uncertainty and emotional exhaustion. First, personal control was regressed on job uncertainty. Second, emotional exhaustion was regressed on job uncertainty. Third, emotional exhaustion was regressed upon both job uncertainty and personal control.

To establish mediation: (1) job uncertainty must significantly affect the mediator, (2) job uncertainty must significantly affect emotional exhaustion in the absence of the mediator, (3) personal control must have a significant unique effect on emotional exhaustion, and (4) the effect of job uncertainty on emotional exhaustion decreases upon the addition of personal control in the regression. This four-step approach to examining mediation can be used to judge whether or not mediation is occurring. However, MacKinnon and Dwyer (1993) have proposed methods by which mediation may be statistically assessed. As described by Baron and Kenny (1986), we conducted a Sobel (1982) test of the indirect effect of job uncertainty on emotional exhaustion via personal control. The purpose of the Sobel test is to test whether a mediator carries the influence of the independent variable to the dependent variable. A t -test of the indirect effect was conducted using a ratio of the indirect coefficient to its standard error. A significant t indicates that the indirect effect of the independent variable on the dependent variable via the mediator is significantly different from zero. As suggested by Baron and Kenny (1986), analyses used the Goodman (1960) version of the Sobel test, which adds the third denominator term.

At Time 1, in the first regression, job uncertainty was significantly negatively related to personal control, $R^2_{adj} = .22$, $F(1, 217) = 63.20$, $p < .001$; $\beta = -.48$, $p < .001$. In the second regression, job uncertainty was significantly positively related to emotional exhaustion, $R^2_{adj} = .15$, $F(1, 217) = 38.16$, $p < .001$; $\beta = .39$, $p < .001$. In the third regression, when job uncertainty and personal control were entered together, the association between job uncertainty and emotional exhaustion reduced but remained significant, $R^2_{adj} = .19$, $F(1, 216) = 26.30$, $p < .001$; $\beta = .27$, $p < .001$, and personal control was significantly negatively associated with emotional exhaustion, $\beta = -.24$, $p < .001$. The Sobel test showed that the indirect effect of job uncertainty on emotional exhaustion

mediated by personal control was significantly different from zero, $t = 3.14, p < .01$. These results provide support for Hypothesis 2, which proposed that job uncertainty would have both direct and indirect effects (mediated by personal control) on emotional exhaustion in the anticipation stage. A final regression was performed to examine the association between emotional exhaustion and job satisfaction. In line with predictions, emotional exhaustion was significantly negatively related to job satisfaction, $R^2_{adj} = .32, F(1, 217) = 102.44, p < .001; \beta = -.57, p < .001$.

At Time 2, job uncertainty explained a significant amount of variance in personal control for the survivors of the downsizing, $R^2_{adj} = .27, F(1, 99) = 37.63, p < .001$, and for victims of the downsizing, $R^2_{adj} = .17, F(1, 70) = 15.17, p < .001$. Job uncertainty was significantly negatively related to personal control for survivors, $\beta = -.53, p < .001$, and for victims, $\beta = -.42, p < .001$. In the second regression, job uncertainty was also significantly positively related to emotional exhaustion for survivors, $R^2_{adj} = .31, F(1, 99) = 10.54, p < .01; \beta = .31, p < .01$ and for victims, $R^2_{adj} = .40, F(1, 70) = 13.57, p < .001; \beta = .40, p < .001$. In the third regression, when job uncertainty and personal control were entered together, for survivors, the association between job uncertainty and emotional exhaustion was no longer significant, $R^2_{adj} = .15, F(2, 98) = 8.55, p < .001; \beta = .17, ns$, and personal control was significantly negatively associated with emotional exhaustion, $\beta = -.27, p < .05$. For victims, the association between job uncertainty and emotional exhaustion reduced but remained significant, $R^2_{adj} = .23, F(2, 98) = 10.01, p < .001; \beta = .29, p < .01$, and personal control was significantly negatively associated with emotional exhaustion, $\beta = -.28, p < .05$. Results of the Sobel test showed that the indirect effect of job uncertainty on emotional exhaustion via personal control was significant for survivors, $t = 2.26, p < .05$, and for victims, $t = 1.97, p < .05$. Therefore, the results of both analyses provide support for the mediating role of personal control on the association between job

uncertainty and emotional exhaustion. As predicted, personal control fully mediated the relationship between job uncertainty and emotional exhaustion for survivors of downsizing (Hypothesis 4), and partially mediated the relationship between job uncertainty and emotional exhaustion for victims of downsizing (Hypothesis 5). Two regression analyses were performed to examine the association between emotional exhaustion and job satisfaction for survivors and victims. Exhaustion was significantly negatively related to job satisfaction for both survivors, $R^2_{adj} = .20$, $F(1, 106) = 27.25$, $p < .001$; $\beta = -.45$, $p < .001$, and for victims, $R^2_{adj} = .42$, $F(1, 71) = 52.10$, $p < .001$; $\beta = -.65$, $p < .001$.

At Time 3, in the first regression, job uncertainty was significantly negatively related to personal control, $R^2_{adj} = .24$, $F(1, 136) = 45.11$, $p < .001$; $\beta = -.50$, $p < .001$. In the second regression, job uncertainty was significantly positively related to emotional exhaustion, $R^2_{adj} = .07$, $F(1, 135) = 11.60$, $p < .001$; $\beta = .28$, $p < .001$. In the third regression, when job uncertainty and personal control were entered together, the association between job uncertainty and emotional exhaustion reduced but remained significant, $R^2_{adj} = .07$, $F(2, 134) = 6.13$, $p < .001$; $\beta = .24$, $p < .05$, and personal control was not significantly associated with emotional exhaustion, $\beta = -.08$, *ns*. The Sobel test showed that the indirect effect of job uncertainty on emotional exhaustion mediated by personal control was not significant, $t = .82$, *ns*. Thus, the results did not support the mediating role of personal control on the association between job uncertainty and emotional exhaustion proposed in Hypothesis 6. Emotional exhaustion was significantly negatively related to job satisfaction, $R^2_{adj} = .20$, $F(1, 138) = 35.83$, $p < .001$; $\beta = -.45$, $p < .001$.

Discussion

The present study examined levels of job uncertainty, personal control, emotional exhaustion and job satisfaction over three stages of a change process involving downsizing and restructuring. As predicted, levels of job uncertainty and stress were highest and personal control and satisfaction were lowest during the anticipation stage of change when the work environment was disrupted and turbulent. During the implementation of downsizing, levels of job satisfaction and personal control increased, whereas levels of job uncertainty and emotional exhaustion decreased. After the downsizing, employees became more comfortable with the new organization, issues relevant to the change diminished, and employee attitudes improved at the organizational level and stabilized for survivors of the downsizing. These results are consistent with the stages of transformational change (Armenakis et al., 2001), and support previous studies that have shown that the negative consequences of downsizing diminish or stabilize across time (Armstrong-Stassen, 2002; Baruch & Hind, 2000; Parker et al., 1997; Pollard, 2001).

A key finding of the study is that the stage of downsizing influenced the mediating role of personal control on the relationship between job uncertainty and emotional exhaustion. In the anticipation stage of change, when perceptions of job uncertainty were high and perceptions of personal control were low, job uncertainty had both a direct and indirect effect on emotional exhaustion. The positive and direct association between job uncertainty and emotional exhaustion may be due to issues relating to future job changes being particularly salient as employees anticipate downsizing (Fugate et al., 2002; Schweiger & Denisi, 1991; Pollard, 2001). Although personal control partially mediated its effects, job uncertainty related to these issues continued to have a direct effect on the level of emotional exhaustion during this stage.

In the implementation stage of downsizing, consistent with predictions and previous research (Armstrong-Stassen, 2002), issues relating to job uncertainty were as salient for victims as they were for survivors. As pointed out by Doherty et al. (1993), victims of downsizing who continue working in the organization until their contract expires need to understand their current employment responsibilities, changes to their job, and what redeployment opportunities are available. Also predicted, however, was that victims reported lower levels of personal control compared to survivors. This result reflects the lack of personal control that victims of downsizing experience when they are informed that they will no longer be required in the downsized organization (see Mishra & Spreitzer, 1998). The differences in survivors' and victims' levels of personal control influenced the mediating role of personal control. As in the anticipation stage, personal control partially mediated, but did not fully mediate the negative effects of job uncertainty on emotional exhaustion for victims. In contrast, personal control fully mediated the association between job uncertainty and emotional exhaustion for survivors during the implementation stage of downsizing, indicating that issues relating to job uncertainty influenced victims' levels of emotional exhaustion above and beyond the negative impacts resulting from a lack of personal control.

Issues of personal control appear to be less important in the aftermath of change, as it is at this stage that the benefits of change are apparent and the work environment is no longer as uncertain (Kivimaki et al., 2001; Parker et al., 1997). Indeed, in the aftermath of downsizing and restructuring, personal control was not related to emotional exhaustion, whereas job uncertainty was positively related to the stress measure. This result supports previous findings that uncertainty has a lingering effect on survivors' emotional health (e.g., Hellgren et al., 1999). Therefore, while survivor attitudes generally stabilized across

the implementation and aftermath stages of the downsizing, residual uncertainty was still related to the degree of emotional exhaustion experienced by employees.

Collectively, these results suggest that when individuals are confronted with a particularly stressful or uncertain situation, they are more likely to appraise the situation as less controllable (Ganster & Fusilier, 1989; Greenberger & Strasser, 1986), and that personal control is particularly important when change is turbulent or the situation is uncertain. Moreover, the results suggest that employees may adjust to change more readily when they perceive that they have more personal control over the implementation of change. This is in line with previous findings suggesting that survivors who feel in control are more likely to use control-coping (Armstrong-Stassen, 1998), have improved mental health (Kivimaki et al., 2001), and feel more organizational attachment and loyalty, compared to survivors who do not feel in control (Niehoff et al., 2001). However, in times of relatively high job uncertainty and low levels of personal control (i.e., anticipation stage and the implementation stage for victims), employees reported a sense of job uncertainty that influenced their levels of emotional exhaustion independently of their perceptions of personal control over the future.

Thus, uncertainty-management looms as an important task for managers throughout the various stages of downsizing. The results of this study highlight the need to improve both employees' understanding of changes to their jobs, and their level of discretion and autonomy regarding these changes. These issues are particularly salient during the anticipation and implementation stages of change, where victims experience lower levels of personal control than survivors. However, survivors' residual job uncertainty can continue to affect emotional exhaustion in the aftermath of downsizing. Therefore, managers' efforts to reduce employees' uncertainty about their jobs and to enhance their feelings of personal control over their work environment should not be

restricted to the earlier stages of downsizing. One strategy that could be used to reduce job uncertainty is effective (accurate, timely and helpful) job-related communication (e.g., Johnson et al., 1996; Miller, Johnson & Grau, 1994). Research has shown that providing quality communication and involving survivors in decision-making contributes to greater perceptions of procedural justice and fairness (Kernan & Hanges, 2002; Mansour-Cole & Scott, 1998). Victims of downsizing can also benefit from effective communication about their job, as they report similar levels of job uncertainty to survivors. Managers of change should inform survivors and victims about what changes are occurring, how individuals are going to be involved in the change, how the change will affect them in their work, and clarify any misunderstandings about the change. This type of communication can increase employees' knowledge about the change and reduce job uncertainty about the future. Given the mediating role of personal control in the earlier stages of downsizing, participative mechanisms that include employees in decision making processes may also help adjustment to change.

The present study used a repeated cross-sectional design to collect data at three points in an organizational change process. Repeated cross-sectional designs allow for comparisons among time points, as they involve probability sampling from the same population at each time point and consequently, they permit evaluation of changes at the aggregate level (Menard, 1991). Thus, the design allowed us to examine how employee attitudes changed over time: before, during and after the downsizing. The disadvantage of repeated cross-sectional designs is that developmental patterns and relationships between independent and dependent variables cannot be evaluated. Future research could address this by applying a longitudinal design to the study of job uncertainty during downsizing. Future research could also explore the consequences of different types of uncertainty. The current research examined job uncertainty related to immediate work concerns for

employees. However, there are other sources of uncertainty that may also affect an individual's adjustment to organizational change, such as group uncertainty (e.g., the organizational structure), and organizational uncertainty (e.g., the organization's business environment) (Buono & Bowditch, 1989; Jackson et al., 1987). Although these types of uncertainty relate to different levels of analysis, the literature has suggested that they affect each other (Jackson et al., 1987) and that they are more or less salient depending on the stage of change (Buono & Bowditch, 1989). Regardless, the results of the present study suggest that job uncertainty and personal control are important aspects of survivors' and victims' responses to downsizing and restructuring. The management of uncertainty is thus a key challenge facing managers of change.

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Table 1

Means, Standard Deviations, Inter-correlations and Internal Consistency Alphas for the Study Variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1 Uncertainty Time 1 ^a	3.24	1.17	(.80)											
2 Control Time 1 ^a	2.22	1.20	-.48***	(.74)										
3 Emotional Exhaustion Time 1 ^a	2.67	1.18	.39***	-.37***	(.90)									
4 Job Satisfaction Time 1 ^b	2.90	1.04	-.23***	.34***	-.57***	(.92)								
5 Uncertainty Time 2	2.90	1.03	~	~	~	~	(.80)							
6 Control Time 2	2.67	1.17	~	~	~	~	-.46***	(.82)						
7 Emotional Exhaustion Time 2	2.50	.99	~	~	~	~	.36***	-.36***	(.88)					
8 Job Satisfaction Time 2	3.40	.97	~	~	~	~	-.37***	.45***	-.55***	(.82)				
9 Uncertainty Time 3	2.55	.85	~	~	~	~	~	~	~	~	(.77)			
10 Control Time 3	3.07	1.05	~	~	~	~	~	~	~	~	-.50***	(.84)		
11 Emotional Exhaustion Time 3	2.46	.84	~	~	~	~	~	~	~	~	.28***	-.20*	(.87)	
12 Job Satisfaction Time 3	3.73	.81	~	~	~	~	~	~	~	~	-.33***	.33***	-.45***	(.84)

Note. Minimum Pairwise N at Time 1 = 217; N at Time 2 = 176; N at Time 3 = 137.

^a Measured on a 7-point scale and rescaled to a 5-point scale. All other variables measured using a 5-point scale. ^b Job Satisfaction at Time 1 was measured using different items to that used for measuring Job Satisfaction at Time 2 and Time 3. Cronbach's alpha reliability coefficient on the diagonal.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Means and Standard Deviations for Survivors and Victims During the Implementation Stage of Downsizing

Implementation Stage of Downsizing	Survivors		Victims	
	Mean	SD	Mean	SD
Uncertainty Time 2	2.87	.92	2.93	1.19
Control Time 2	2.92	1.02	2.29	1.15
Emotional Exhaustion Time 2	2.51	.92	2.47	1.10
Job Satisfaction Time 2	3.46	.91	3.31	1.05