

**Pink Collar Artists:**  
**Home and Work Stress Effects on Routine Performance, Creativity, and Satisfaction**

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The service sector accounts for over 70% of all workers and over 90% of all new jobs to be created by the year 2000. In this study, we examine stress in an under-researched domain: a personal services setting with a sample of 195 pink collar workers who held jobs as hair salon stylists. We develop a model that predicts relationships between two types of stress (work stress and home stress) and three work domain outcomes (routine performance measured by sales performance, creativity, and satisfaction) critical to service sector jobs. Results demonstrate relationships between work stress and routine performance, between home stress and creativity, and between both types of stress and employee satisfaction at work. These results suggest a different pattern of relationships for each type of outcome. In addition, results demonstrated the positive moderating effect of supportive supervision for the stress -- creativity relationships and the positive moderating effect of intrinsic motivation for the stress -- satisfaction relationships. We discuss the implications of these findings for managers and for future research.

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### **Home and Work Stress Effects on Routine Performance, Creativity, and Satisfaction**

Researchers have long been interested in stress (Kahn and Byosiere, 1992; Lazarus, Deese, and Osler, 1982; McGrath 1976). Organizational scholars have examined task, job, and work stress in particular, and investigated their effects on health, satisfaction, and general employee attitudes and performance (Fox, Dwyer, and Ganster, 1993; Motowidlo, Packard, and Manning, 1986; Schuler, 1980). At

the same time, research in the context of work and family issues has begun to examine the relation between home-related stress and a variety of outcomes such as home-life satisfaction and workplace satisfaction (Cooke and Rousseau, 1984; Frone, Russell, and Cooper, 1992; Thomas and Ganster, 1995; Zedeck, 1992).

While much of this work addresses stress and well-being, stress in the home/family domain and the spillover of stress from work to non-work, less research has examined the relation between stress and employee work performance (Motowidlo, Packard, and Manning, 1986; Schuler, 1980; Zedeck, 1992), and we are aware of no research that examines stress and employee creativity at work. In a review of stress in organizations, Kahn and Byosiere (1992) called for more research on a wider variety of stress-related outcomes, including non-self report and objective measures of performance, interactions between different types of stress, and factors that strengthen or weaken stress relationships.

Our study responds to these gaps by examining the relationship between two forms of stress (home stress and work stress) and three outcomes in the work domain (routine performance, creativity, and satisfaction). We were also interested in factors that might ameliorate any negative aspects of stress. Thus we also proposed and examined two moderators (supportive supervision and intrinsic motivation) as possible influences on the relationship between stress and employee outcomes. We focus on three general research questions: 1) Is stress related to routine performance, creativity, and satisfaction? 2) Do work stress and home stress interact in influencing these outcomes? 3) Do supportive supervision and intrinsic motivation influence the relationship between stress and these outcomes? In general, we propose that although low to moderate stress at work can enhance task performance, high levels of work stress or home stress will detract from routine work performance, creativity, and satisfaction at work. Figure 1 illustrates our model and the relationships we hypothesized.

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We examine these research questions in an expanding, yet under-researched domain B that of Apink collar@ (Howe, 1977) personal service employees (i.e., hair salon stylists) where routine performance, creativity, and satisfaction are important aspects of the job that can influence customer service and customer satisfaction. (Gutek, 1995). Pink collar workers is a term that has traditionally been used in a stereotypical, and sometimes, demeaning manner to describe support staff and paraprofessional work that is done predominantly by women (Probert and Wilson, 1993). Although researchers often study samples of white collar (professional) or blue collar (manufacturing) workers, there is little empirical research on pink collar workers. Pink collar jobs include personal service workers such as hair stylists, nurses aides, day care providers, and home health assistants as well as non-personal service workers who hold jobs in word processing pools, telemarketing, data entry, and other clerical activities. We use the term Apink collar artists@ to emphasize the creativity that is an overlooked characteristic of the jobs in our study. Creativity and innovative approaches to hair care and styling are critical individual success factors that have positive consequences for repeat customers business and for overall salon effectiveness.

We believe the setting of this investigation -- a personal service industry -- is important for several reasons. First, the service sector accounts for over 70% of all workers, over 90% of all new jobs created in recent decades, and over 90% of all new jobs to be created by the year 2000 (Applebaum and Batt, 1994; Personick, 1987). Second, characteristics of the service sector (involvement of the customer in production and delivery of services) differentiate service jobs from manufacturing and traditional office jobs because key performance indicators are more intangible in nature and involve the ambiguity of working directly with customers (Sasser, Olsen, and Wyckoff, 1978). Third, we anticipated that our research questions would be especially salient in the personal services segment of the service sector where emotional labor (Parkinson, 1991; Rafaeli and Sutton, 1989) may give stress particular relevance to routine performance, creativity, and

satisfaction. Personal service firms provide services directly to individuals rather than to other organizations. These services include hair care, manicures, dry cleaning, laundry, home cleaning, child care, nanny service, personal fitness, and for some individuals housekeeping, gardening, and chauffeuring.

We develop a model of the relationship between two types of stress (work and home) and three outcomes important to the personal service industry: routine performance, a form of less routine (or discretionary) performance, and employee satisfaction. For each outcome, we also describe two factors that have the potential to moderate the impact of stress. One under the control of managers, supportive supervision; and a second relevant to the employee herself, intrinsic motivation.

## **STRESS AND ROUTINE PERFORMANCE**

We define stress as an emotional experience associated with nervousness, tension and strain (cf. Cooke and Rousseau, 1984) consistent with earlier definitions of psychological stress (Lazarus, Deese, and Osler, 1952; Motowidlo, Packard, and Manning, 1986). Stress can be based on a variety of factors in various domains including pressures at work and pressures at home (see, for example, Netemeyer, Boles, and McMurrian, 1996). Therefore we distinguish between work stress and home stress. Work stress is stress that occurs in the workplace. It can be based on conflict or tension<sup>1</sup> with co-workers and supervisors and can involve arguments, nervousness, strain, and tension at work. Home stress has similar characteristics (i.e., conflict, tension, arguments, strain, etc.) but is based on relationships, responsibilities, and events that occur at home.

The oldest model of stress and performance is based on a variation of the Yerkes-Dodson Law (1908) which suggests an inverted-U shaped relationship. That is, for low to moderate levels of stress, the

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<sup>1</sup> We treat the concepts of work stress and home stress as separate and do not assume work-family conflict. This differentiates our approach to stress research from the body of research on work/family conflict (see, for example, Frone, Russell, and Cooper, 1992; Greenhaus, Bedeian, and Mossholder, 1987; Staines, 1980).

relationship with performance is positive, but for moderate to high levels of stress, the relation between stress and performance is negative (Cohen, 1980; McGrath, 1976; Schuler, 1980). The explanation typically given for this U-shaped relationship is based on activation theory. Low to moderate stress is associated with moderate physiological arousal which focuses individual attention on task-relevant cues, neglects irrelevant cues, and enhances routine work performance. In contrast, when stress is moderate to high, further narrowing of attention causes employees to neglect task-relevant as well as task-irrelevant cues which reduces routine work performance levels (Scott, 1966).

Early laboratory research suggests work stress may be differentially related to quantity versus quality dimensions of task performance and that stress enhances the rate, but decreases the accuracy of work performance (Lazarus, Deese, and Osler, 1952; Schuler, 1980). In addition, several authors have argued that the optimal level of stress should be lower when tasks are difficult (McGrath, 1976) or when they require integration of information from multiple sources (Cohen, 1980).

The above suggests that quantitative measures of habitual or routine work performance should be positively related to moderate amounts of work stress. For hair salon employees, many aspects of cutting hair, coloring hair, giving permanents, etc. are routine. By performing these tasks at a faster rate while maintaining quality and customer satisfaction, employees can enhance their sales revenue (routine performance). When work stress is low to moderate (due, for example, to time pressures), arousal increases and employees perform well-defined or well-practiced work behaviors with increased efficiency, without negative effects on quality. On the other hand, if employee work stress reaches high levels, they experience over-stimulation and excessive arousal that may detract from maximal performance of routine work behaviors. Based on this reasoning, we would predict a curvilinear relationship (as illustrated in Figure 2) between work stress and routine performance across a broad spectrum of individuals, jobs, and organizations.

**Hypothesis 1 (H1):** The relationship between work stress and routine performance is curvilinear; that is, if

work stress is low to moderate, it will be positively related to routine performance, if work stress is moderate to high, it will be negatively related to routine performance.

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In any one organization, however, we would not expect widely varying amounts of work stress in the same job across personnel. This is for two reasons. First, organizational standardization of policies, procedures, and norms creates a relatively uniform work environment. Second, employees who perform the same job (within the same organization) have the same job descriptions, performance goals, and incentive plans. Thus even though each individual will have a personal and somewhat idiosyncratic view of work stress, we would expect restricted range for the same jobs within one organization. Accordingly, we predict that either Hypothesis 1a (low to moderate stress levels) or Hypothesis 1b (moderate to high stress levels) will occur in our sample of hair salon stylists all working in the same job, for the same organization. We state both versions of the hypothesis below. For ease of communication, we present future hypotheses only in the H1a format.

**Hypothesis 1a (H1a):** If work stress is low to moderate, work stress will be positively related to routine performance.

**Hypothesis 1b (H1b):** If work stress is moderate to high, work stress will be negatively related to routine performance.

### **Home Stress and Routine Performance**

We are also interested in the relations between employees' home stress and their behavior at work. Although little research directly examines the home-work "cross-over" where home variables affect work outcomes (Schuler, 1980; Zedeck, 1992), recent theory suggests that an individual's situation at home can

influence performance at work (Frone, Russell, and Cooper, 1994; Kabanoff, 1980; Staines, 1980; see Zedeck, 1992 for a review). We posit that home stress & work outcomes differ from those of work stress & work outcomes because these two types of stress direct attention differently. Work stress reflects employee feelings of tension, conflict and isolation regarding work-related issues and events; home stress reflects feelings of tension, conflict and isolation with respect to home life. When employees experience high home stress, the resulting arousal focuses attention on home-related issues, not on work-related issues. Thus high home-related stress diverts attention away from work-relevant cues (in this setting, cues about sales performance) and is negatively related to routine performance at work. We thus propose that:

**Hypothesis 2 (H2):** Home stress will be negatively related to routine performance at work.

In addition, we propose that home stress will influence the relationship between work stress and routine work performance. We argue, as illustrated in Figure 2, that the nature of this interaction depends upon the general levels of work stress present in the study environment. Specifically, when work stress is low to moderate (H1a), we expect high home stress to diminish the positive relationship of work stress and routine performance. The neutralizing effect is due to the distracting nature of home stress which directs attention away from task performance. If work stress is moderate to high (H1b), we expect the interaction of home stress and work stress to further reduce routine performance. Accordingly, we hypothesize:

**Hypothesis 3 (H3):** Home stress will moderate the work stress and routine performance relationship, such that when home stress is high, the positive relationship between work stress and routine performance (based on H1a) will be weaker (see Figure 2).

### **Supportive Supervision and Routine Performance**

A growing body of literature suggests that supportive environments can reduce the negative effects of stress (DeLongis, Folkman, and Lazarus, 1988; Kahn and Byosiere, 1992; Pierce, Sarason, and Sarason,

1992). Supportive supervision occurs when employees have high quality relationships with their supervisors (characterized by trust, mutual liking, and respect) that allow them autonomy, decision latitude, and influence (Graen, 1976). Supportive supervisors provide guidance and display confidence in their employees (Deci, Connell, and Ryan, 1989; Dienesch and Liden, 1986). We propose that by offering support, supervisors can enhance the positive effects of stress and weaken the negative effects of stress by helping employees focus on the work at hand and giving them confidence to perform their jobs. For instance, when work stress is moderate and positively related to routine performance, employees with high quality dyadic relationships with their supervisors should experience heightened motivation, task focus, and performance. Conversely, supportive supervision will reduce the distracting nature of home stress, shift attention back to work, and weaken the negative relationship between home stress and performance. For example, if a supportive supervisor is flexible about work scheduling and accommodates an employees= need to take a child or dependent parent to the doctor, the employee most likely will respond with increased work focus upon return to work. Therefore, we proposed that

**Hypothesis 4a (H4a):** Supportive supervision will moderate the work stress and routine performance relationship, such that when supervision is highly supportive, the positive relation between work stress and routine performance will be stronger.

**Hypothesis 4b (H4b):** Supportive supervision will moderate the home stress and routine performance relationship, such that when supervision is highly supportive, the negative relation between home stress and routine performance will be weaker.

### **Intrinsic Motivation and Routine Performance**

Intrinsic motivation refers to an employees= internal drive to perform their job (Deci, 1975). In this situation, interest, satisfaction, and enjoyment are based on the inherent nature of the job. When employees are internally motivated, external stressors are less likely to interfere with performance and it is easier to

focus on the task. Research has shown that intrinsically motivated employees enjoy the challenge of performing their job and that they are energized and able to maintain focus on their tasks (Deci and Ryan, 1985). We propose that the heightened task focus of intrinsically motivated individuals will enhance the positive relationship between work stress and routine performance. An example is individuals who enjoy their jobs so much that work seems like play and it is easy to be efficient. We predict that this type of intrinsically motivated individual will respond positively to moderate levels of work stress and will perform at high levels. In addition, intrinsically motivated employees will be less distracted by the negative aspects of home stress. For example, even if individuals have numerous home-related personal problems, those with high levels of intrinsic motivation for their work can lose themselves in their work. In some cases, the intrinsically motivated employee may use work to compensate for high home stress. In other cases, intrinsically motivated employees may simply segment or compartmentalize their lives. Either approach is based on attentional self-regulation (Kanfer, 1990) which allows them to block out stressors that might otherwise interfere with their functioning and routine job performance. Accordingly,

**Hypothesis 5a (H5a):** Intrinsic motivation will moderate the work stress and routine performance relationship, such that when intrinsic motivation is high, the positive relation between work stress and routine performance will be stronger.

**Hypothesis 5b (H5b):** Intrinsic motivation will moderate the home stress and routine performance relationship, such that when intrinsic motivation is high, the negative relation between home stress and routine performance will be weaker.

## **STRESS AND CREATIVITY**

Our first set of hypotheses focused on routine performance. Our second set of hypotheses focuses on a type of employee performance that often is not a routine part of the job -- creativity. Creativity is the production of ideas, products, or procedures that are (a) novel or original and (b) potentially relevant for or

useful to the organization (Amabile, 1983, 1988; Sternberg and Lubart, 1996). It often involves gathering information from multiple sources, recognizing unusual connections between elements of a problem or situation, and combining them into a practical and useful product (Amabile, 1983; Van de Ven, 1986). Creativity is particularly important for service sector employees because providing novel services, integrating customer preferences with knowledge of constraints, and making innovative suggestions for improving internal procedures are critical for customer satisfaction and effective service delivery (Cummings and Oldham, 1997). In hair salons, this includes novelty in styling designs, helping customers solve hair care problems, and making creative suggestions to co-workers and salon supervisors about ways to improve procedures and operations. While these behaviors are not be required and are often not routinely expected, they are valued by customers, peers, and supervisors and can increase overall salon performance.

We argue that stress will negatively affect creative behavior because of its non-routine nature for at least two reasons. First, although the increased focus caused by stress can improve routine behaviors, the narrowing of attention can reduce employees' ability to recognize alternative approaches and can prevent them from integrating diverse sources of information into novel outcomes (Cohen, 1980). Second, although institutional rewards and constraints reinforce routine aspects of performance, discretionary behavior such as creativity is often not included in employee job descriptions or expectations. Creativity is more difficult to measure and evaluate than routine performance and this is often excluded from formal organizational reward systems. When employees are under stress, they most likely focus on specified behaviors that they know will be measured and considered in performance reviews. As a result, their creativity is reduced just as quality is often negatively associated with quantity.

To date, there is little research on impediments to creativity in organizations such as pressure or stress (for an exception, see Amabile, Conti, Coon, Lazenby, and Herron, 1996). Amabile and colleagues differentiated two distinct forms of pressure (excessive workload and challenge) and predicted negative

effects for excessive workload and positive effects for challenge. In our research we focused on stress as an emotional experience entailing tension and strain with co-workers and supervisors (work stress) and family and friends (home stress). We did not include the type of pressure and stress that derive from challenge.

Accordingly, we predicted that moderate work stress enhances attention to well-defined tasks and extrinsic aspects of the work such as reward or failure (Lazarus, 1952), narrows attention to routine performance, and decreases discretionary behaviors such as creativity. Similarly, we expected home stress to deplete energy and attentional resources and have a negative relationship with creativity. In addition, based on the above rationale, we propose that home and work stress will accentuate one another. Home stress will add to the burden of work stress, further distracting attention, reducing divergent thinking, and preventing novel integration of ideas. Accordingly, we hypothesize:

**Hypothesis 6 (H6):** Work stress will be negatively related to employee creativity at work.

**Hypothesis 7 (H7):** Home stress will be negatively related to employee creativity at work.

**Hypothesis 8 (H8):** Work stress and home stress will interact such that high home stress strengthens the negative relation between work stress and creativity.

### **Supportive Supervision and Creativity**

As suggested earlier, a supportive environment can alleviate the negative effects of stress on traditional forms of performance such as productivity. However, supportive supervision may be particularly important in reducing the negative effects of stress on creativity. Since discretionary behavior such as creativity is especially susceptible to distractions and stress, managerial actions that communicate trust and respect and provide employees with flexibility and personal support may help employees deal with the emotional experiences associated with their stress and increase their creativity.

Prior research has demonstrated that the quality of supervisor-employee relationships is positively associated with creativity (Amabile, Conti, Coon, Lazenby, and Herron, 1996; Scott and Bruce, 1994;

Cummings and Oldham, 1995). Supportive supervisors are non-controlling, display confidence in their employees, and treat them as loyal and trustworthy (Deci, Connell, and Ryan, 1989; DeLongis, Folkman, and Lazarus, 1988; Dienesch and Liden, 1986). We suggest that this will reduce the negative effects of stress on creativity by counteracting feelings of nervousness and tension. By communicating trust and support, supervisors may facilitate employee creativity, even under stressful conditions. This would allow employees to maintain the flexibility, autonomy, divergent thinking, and risk-taking characteristics of creative performance even when work or home stress is present. Thus we expect that:

**Hypothesis 9a (H9a):** Supportive supervision will moderate the work stress and employee creativity relationship, such that when supervision is highly supportive, the negative relation between work stress and creativity will be weaker.

**Hypothesis 9b (H9b):** Supportive supervision will moderate the home stress and employee creativity relationship, such that when supervision is highly supportive, the negative relation between home stress and creativity will be weaker.

### **Intrinsic Motivation and Creativity**

A significant body of research suggests that employees are more creative when they experience self-determination and are intrinsically motivated (Amabile, 1983; Deci, Connell, and Ryan, 1989; Koestner, Ryan, Bernieri, and Holt, 1984). That is, when employees can focus on and enjoy the intrinsic nature of the task itself, they are more likely to think divergently, take risks in trying new combinations, and persist in producing a novel outcome (Amabile, 1988; Oldham and Cummings, 1995). Integrating these findings with the stress literature leads us to expect that high levels of intrinsic motivation will mitigate the negative relationship of stress and creativity. Under conditions of high task enjoyment, employees should find it easier to become immersed in the work itself and redirect attention away from any thoughts or anxieties related to work or home stress. Thus under conditions of high stress, intrinsically motivated employees should be more

creative than employees who are not intrinsically motivated. We propose that intrinsic motivation will weaken or neutralize (in extreme situations) the distractions associated with stress and facilitate higher creativity at work. Accordingly, we hypothesize:

**Hypothesis 10a (H10a):** Intrinsic motivation will moderate the work stress and employee creativity relationship, such that when intrinsic motivation is high, the negative relation between work stress and creativity will be weaker.

**Hypothesis 10b (H10b):** Intrinsic motivation will moderate the home stress and employee creativity relationship, such that when intrinsic motivation is high, the negative relation between home stress and creativity will be weaker.

## **STRESS AND EMPLOYEE SATISFACTION**

In their review of the stress literature, Kahn and Byosiere (1992) concluded that satisfaction is the most commonly studied psychological response to stress and that empirical results generally demonstrate a negative relationship. We included satisfaction hypotheses in our research design to ascertain if results were similar in our sample of personal service employees. Based on past research we hypothesize that the tension, anxiety, and nervousness of work stress will be negatively related to satisfaction at work. Based on Williams and Alliger=s (1994) findings that negative attitudes spillover in both directions (from home to work and from work to home) and that these effects were stronger for females than males, we hypothesized that home stress would be negatively related to work satisfaction. Based on the logic described earlier in this paper, we expected home stress to accentuate the negative relationship of work stress and satisfaction.

**Hypothesis 11 (H11):** Work stress will be negatively related to employee satisfaction at work.

**Hypothesis 12 (H12):** Home stress will be negatively related to employee satisfaction at work.

**Hypothesis 13 (H13):** Work stress and home stress will interact in influencing employee satisfaction at work such that when home stress is high the negative relationship between work stress and satisfaction will

be stronger.

We also hypothesized that supportive supervision will weaken the negative relationship between both types of stress and satisfaction. When employees and their supervisors have high quality relationships, supervisors will be more aware of stressors that concern employees and they will be more empathetic and supportive. This consideration should neutralize or reduce the negative links between stress and satisfaction at work.

**Hypothesis 14a (H14a):** Supportive supervision will moderate the work stress and satisfaction relationship, such that when supervision is highly supportive, the negative relation between work stress and satisfaction will be weaker.

**Hypothesis 14b (H14b):** Supportive supervision will moderate the home stress and satisfaction relationship, such that when supervision is highly supportive, the negative relation between home stress and satisfaction will be weaker.

Our final set of hypotheses proposes that intrinsic motivation will moderate the relationships between both types of stress and satisfaction. When employees derive satisfaction from doing the job itself, we proposed that these positive feelings will allow them to ignore or downplay sources of stress at work (for example, conflict with co-workers) or at home (for example, tension with family members). Employees who are intrinsically motivated to do their jobs will feel less dissatisfaction with home and work stress than employees who are not intrinsically motivated.

**Hypothesis 15a (H15a):** Intrinsic motivation will moderate the work stress and satisfaction relationship, such that when intrinsic motivation is high, the negative relation between work stress and satisfaction will be weaker.

**Hypothesis 15b (H15b):** Intrinsic motivation will moderate the home stress and satisfaction relationship, such that when intrinsic motivation is high, the negative relation between home stress and satisfaction will be

weaker.

In summary, our three research questions and hypotheses propose that 1) work stress and home stress will be related to routine performance, creativity, and work satisfaction, 2) work stress and home stress will interact in influencing these three outcomes, and 3) supportive supervision and intrinsic motivation will moderate the relationships between stress and routine performance, creativity, and employee satisfaction at work.

## **METHODS**

### **Sample and Research Site**

We examined these research questions in a field study of 195 stylists and their supervisors from 41 hair care salons which were owned and managed under one master franchise. Salons provided value-based hair care in local neighborhoods, and, on average, individual stylists developed ongoing relationships with 43% of their customers. Using Gutek=s (1995) categories of encounter and relationship services, this approximates a 50/50 mix of single-interaction service encounters and particularistic, ongoing personal relationships. Management encourage stylists, and stylists prefer, to develop repeat business relationships where customers scheduled appointments with particular stylists in advance. Repeat customers allow higher quality personal interaction and purchase more products and services. At the same time, the organization welcomed walk-in business which was assigned to stylists on a rotating basis.

Salons were located in six states in the Midwest and represented 95% of the units in the organization (41 out of 43). Two salons did not participate because the organization=s senior management determined that participation was not timely or appropriate. In one, the salon supervisor was terminally ill and in the other the supervisor had just resigned and had not yet been replaced. The employee sample was 97% female and 46% full-time. On average, participants were 28 years old (range: 16-66) and had worked for the organization for 2 years. Seventy-one percent had at least one to two years of college or technical school

education and 56% had worked in the hair care industry for at least 5 years. The supervisors of these employees were 95% female and 100% full-time. On average supervisors were 30 years old (range:22-48), had worked four years for the organization, and had ten years of total full-time work experience. Eighty percent of the supervisors had at least one to two years of college or technical school.

## **Procedure**

Employees completed surveys in group meetings held at company facilities (92% response rate) which were administered as part of a larger study on work attitudes and behavior. Participants were assured that their individual responses would remain confidential and that they could withdraw from the study at any time. Two research assistants who had been trained personally by the primary researcher conducted the data collection meetings, following an identical script. This increased the consistency of procedures and assured that all respondents completed their questionnaires at the same time, under the same circumstances. The presence of a research assistant during the data collection meetings prevented discussion of responses and/or collaboration among employees to determine responses. Supervisors were not present during the employee meetings to reduce demand characteristics that might influence participant responses.

We obtained sales information (routine performance) for each stylist from corporate records for the three months following the initial data collection. Six months after the employee survey, supervisors (n=41) completed questionnaires (as part of the broader study) which included our data on ratings of employee creativity. The specific timing of the three data collections was determined primarily by the organization=s requirements rather than by theoretical considerations. Our primary objective was to obtain information on each construct from the most appropriate source and to minimize common source bias. Likert-type questions were measured on seven point scales (1= strongly disagree; 7=strongly agree).

## **Measures**

**Dependent variables.** We assessed routine performance, creativity, and satisfaction. Routine

performance was the average monthly sales performance of each employee during the three months following the initial data collection (obtained from corporate records). Supervisors rated the overall creativity of each stylist over the preceding six months with five questionnaire items ( $\alpha = .81$ ) six months after the employee survey. This scale was adapted from Oldham and Cummings (1995), Van Dyne, Graham, and Dienesch (1994), and Scott and Bruce (1994). It included items such as "creativity in styling hair" and "makes innovative suggestions to improve the effectiveness of the group." We assessed satisfaction with the overall work situation with six items based on Kunin's faces scale (Kunin, 1955). Employees circled the number of the face (1=big frown; 7=big smile) that best represented their satisfaction. Example items included "Consider the overall quality of work life here in this work group. Select the face which best expresses how you feel about the quality of work life here," "Consider the working conditions here in this work group. Select the face which best expresses how you feel about the working conditions here," "Consider the information that you get about things that are relevant to this work group. Select the face which best expresses how you feel about the information that you get here." Cronbach's alpha was .87.

**Independent variables.** Work stress and home stress were measured with self-report items from Brett, Stroh, and Reilly (1990). The eight work stress items (Cronbach's  $\alpha = .91$ ) assessed how frequently employees were bothered by work-related things such as "feeling that you get into too many arguments in your work group," "feeling that you work under a great deal of tension," and "feeling nervous before attending meetings at work." The nine home stress items (Cronbach's  $\alpha = .91$ ) assessed how frequently employees were bothered by things related to their home life, such as "feeling that you get into too many arguments with your spouse/partner," "feeling fidgety or nervous as a result of your home life," and "feeling that problems associated with your home life have kept you awake at night."

**Moderating variables.** We assessed supportive supervision ( $\alpha = .90$ ) with supervisor responses to seven leader-member exchange items based on Dienesch and Liden (1986). Items included "I have a close

working relationship with this employee," "I have a high degree of confidence in this employee," and "I have a high level of trust in this employee." We assessed intrinsic motivation by asking employees to check the one element of their job (location, pay, interacting with employees or cutting hair) that they liked most. Cutting hair was coded 1; other responses were coded 0 since they focus on other aspects of the job.

**Control variables.** In our sample, 54% of the employees worked part-time and 97% were female. We were concerned that these characteristics might influence our dependent variables. Accordingly we controlled for work status (0=part time; 1=full time) and sex (1=male; 2=female) which were included in the employee questionnaire.

### **Analyses.**

We assessed our hypotheses with hierarchical regression, entering the controls in step 1, main effects in step 2, and interactions (when hypothesized) in step 3. Given the directional predictions of our hypotheses, we interpreted results for each step based on 1-tail  $\Delta F$  statistics and determined statistical significance of individual parameters based on t-values. Additionally, we interpreted interactions based on median split plots (see Figures 3-7).

## **RESULTS**

Descriptive statistics, including means, standard deviations, correlations, and Cronbach's alpha are reported in Table 1.

### **Stress and Routine Performance**

In order to address Hypothesis 1, we first assessed whether the overall relationship between work stress and routine performance was curvilinear. Addition of the squared value of work stress failed to increase explained variance in routine performance ( $\Delta F=.29, p>.05$ ) over and above the effects of the controls and the main effect for work stress. A scatterplot of work stress and routine performance suggested a

positive linear relationship. Finally, the descriptive statistics (see Table 1) show that, on average, work stress was low to moderate (mean=2.45, sd=1.32, on a 7-point scale) suggesting that stylists did not experience particularly high levels of work stress. The positive linear relationship between work stress and routine sales performance ( $r=.29$ ,  $p<.001$ ) is consistent with prior research that describes a negative relationship between work stress and performance only for high levels of stress. Table 2 summarizes hierarchical regression results for routine performance. After accounting for the effects of the control variables (work status and sex), the addition of work stress increased explained variance in routine performance by 8% ( $\Delta F=12.81$ ,  $p<.001$ ,  $\beta=.28$ ). Overall the equation explained 12% of the variance in routine performance ( $F=6.17$ ,  $p<.001$ ). Accordingly, results support Hypothesis 1, that low to moderate amounts of work stress are positively related to routine performance. Results, however, fail to support Hypothesis 2. Home stress did not contribute to routine performance over and above the effects of the controls ( $\beta=.05$ ,  $p>.05$ ).

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Insert Tables 1 & 2 and Figure 3 about here  
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Results support Hypothesis 3 demonstrating a significant interaction between work stress and home stress ( $\Delta F=3.29$ ,  $p<.05$ ,  $\beta=.50$ ). This equation explained 14% of the variance in routine performance. Figure 3 illustrates this interaction, indicating that the main effect for work stress is weakened when home stress is high. This is consistent with Hypothesis 3 which predicted that under conditions of high home stress, work stress has a less positive relation with routine performance than under conditions low home stress.

Results, which are reported in Table 2, fail to support Hypotheses 4a ( $\beta=.45$ ,  $p>.05$ ), 4b ( $\beta=-.02$ ,  $p>.05$ ), 5a ( $\beta=-.11$ ,  $p>.05$ ), and 5b ( $\beta=.03$ ,  $p>.05$ ). Neither supportive supervision nor intrinsic motivation influenced the relationship between stress and routine performance. In sum, work stress

consistently positively influences routine performance.

### **Stress and Creativity**

Results for the creativity hypotheses (H6 B H10) are reported in Table 3. Even though the  $\Delta F$  and beta value for work stress approached significance ( $\Delta F=1.78$ ,  $p<.10$ ,  $\beta=-.12$ ), the  $F$  for the overall equation containing work status, sex, and work stress as predictors of creativity failed to reach traditional significance levels ( $F=.83$ ,  $p>.10$ ) for Hypothesis 6 and do not indicate a negative relationship between work stress and creativity.

Results supported Hypothesis 7, which predicted that home stress and creativity would be negatively related ( $\Delta F=7.76$ ,  $p<.01$ ,  $\beta=-.25$ ). Overall, this equation explained 8% of the variance in creativity. Results fail to support Hypothesis 8, indicating that the interaction of work stress and home stress was not related to creativity ( $\beta=-.11$ ,  $p>.05$ ).

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Insert Table 3 and Figures 4 & 5 about here  
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Hierarchical regression results, which are reported in Table 3, demonstrate that supportive supervision moderated the relation between work stress and creativity ( $\Delta F=5.96$ ,  $p<.01$ ,  $\beta=1.13$ ). Examination of the form of this interaction, which is illustrated in Figure 4, demonstrates support for Hypothesis 9a. Highly supportive supervision neutralized the negative relationship between work stress and creativity. Overall this equation explained 41% of the variance in creativity ( $F=15.8$ ,  $p<.001$ ). Supportive supervision also moderated the home stress -- creativity relationship ( $\Delta F=5.42$ ,  $p<.01$ ,  $\beta=-.76$ ) in the same manner as the moderation by work stress (see Figure 4), demonstrating support for Hypothesis 9b. Supportive supervision weakened the negative relationship between home stress and creativity. Explained variance for this equation was 43% ( $F=17.21$ ,  $p<.001$ ).

Results failed to support Hypotheses 10a ( $\beta = -.03$ ,  $p > .05$ ) indicating no support for an interaction between work stress and intrinsic motivation in explaining variance in creativity. Results suggest marginal support for an interaction between intrinsic motivation and home stress which approached the traditional cut-off for significance ( $\Delta F = 1.78$ ,  $p < .10$ ,  $\beta = -.28$ ). Figure 5, however, illustrates that the form of the interaction is not consistent with Hypothesis 10b. High intrinsic motivation strengthened the negative relationship between home stress and creativity such that high intrinsic motivation had more of an effect on creativity when home stress was low.

### **Stress and Satisfaction**

Table 4 summarizes the hierarchical regression analyses for satisfaction (H11 B H15). Results support Hypothesis 11 demonstrating a negative relationship between work stress and satisfaction over and above the effects of the control variables ( $\Delta F = 77.74$ ,  $p < .001$ ,  $\beta = -.56$ ). Overall this equation explained 31% of the variance ( $F = 26.20$ ,  $p < .001$ ). Results also support Hypothesis 12 indicating a negative relationship between home stress and satisfaction ( $\Delta F = 6.37$ ,  $p < .01$ ,  $\beta = -.19$ ). Hypothesis 13 was not supported ( $\beta = .06$ ,  $p > .05$ ). The interaction between work stress and home stress was not related to satisfaction.

Supportive supervision did not moderate the relationship between either type of stress and satisfaction (Hypothesis 14a:  $\beta = .06$ ,  $p > .05$ ; 14b:  $\beta = -.20$ ,  $p > .05$ ). Finally, intrinsic motivation moderated the relationship between both types of stress and satisfaction (H15a:  $\Delta F = 2.71$ ,  $p < .01$ ,  $\beta = .26$ ); H15b: ( $\Delta F = 7.75$ ,  $p < .01$ ,  $\beta = .54$ ). Figures 6 and 7 illustrate the form of these interactions demonstrating support for Hypotheses 15a and 15b. Intrinsic motivation weakened the negative relationship between stress and satisfaction. The work stress B intrinsic motivation equation explained 31% of the variance in satisfaction while the home stress B intrinsic motivation equation explained 11%.

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Insert Tables 4 & 5 and Figures 6 & 7 about here  
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## DISCUSSION

This study examined the relationships of home stress and work stress with routine performance, creativity, and satisfaction in a sample of pink collar artists where sale performance and creativity are key success factors. We summarize results in Table 5 in order to highlight the overall pattern of relationships which we discuss below.

Results demonstrated five hypothesized relationships for **work stress**. First, the low to moderate levels of work stress which were characteristic of our sample were positively related to routine performance (sales revenue). This demonstrates that stress is not necessarily negative and that it can have a positive association with a key effectiveness criteria. Second, work stress interacted with home stress relative to routine performance (see Figure 3). In other words, high home stress weakened the positive relationship of work stress and routine performance. Third, work stress interacted with supportive supervision to weaken the negative relationship between work stress and creativity (see Figure 4). Fourth, work stress was negatively related to employee satisfaction. Fifth, work stress interacted with intrinsic motivation to reduce the negative relationship of work stress and satisfaction (see Figure 6).

For **home stress**, results supported five hypothesized relationships. First, home stress reduced the positive relation between work stress and routine performance (see Figure 3). Second, home stress was negatively related to creativity. Third, the interaction of home stress and supportive supervision was related to creativity (see Figure 4). Fourth, home stress reduced satisfaction, and fifth, home stress interacted with intrinsic motivation to neutralize the negative relationship between home stress and satisfaction (see Figure 7).

One useful way of exploring these results compares the different pattern of relationships for each outcome variable. All significant relationships for routine performance involved work stress, indicating the salience and importance of low to moderate levels of work stress for high stylist sales performance. This supports activation arousal theory (Scott, 1966) and suggests that managers should maintain moderate levels of work stress to facilitate high levels of routine performance. In an interesting contrast, home stress was the key construct related to creativity at work. Home stress was negatively related to creativity. This supports our contention that home stress depletes energy, narrows attention, discouraged divergent thinking, inhibits creative integration of ideas, and prevents discretionary behavior. We also note the significant interaction between home stress and intrinsic motivation in explaining variance in creativity. The form of this relationship (see Figure 5) is different from our hypothesis. Instead of showing the hypothesized neutralizing effect, high intrinsic motivation strengthened the negative relationship between home stress and creativity. If future research confirms this relationship, organizations might anticipate benefits from intrinsic motivation to creativity for those with low home stress rather than for those with high home stress. Given the critical importance of creativity for innovation in organizations, results of this study suggest that practitioners should consider the home stress of their employees. This is particularly relevant in jobs like those of these pink collar artists and other service sector jobs where creativity influences customer satisfaction and repeat business. We also recommend that future research include a more open systems approach that include home and non-work factors in research designs. Finally, results for our third dependent variable, satisfaction, indicate equal importance for work stress and home stress. Consistent with past research, both forms of stress were negatively related to satisfaction at work.

A second way of looking at our results focuses on where the effects of stress are moderated and where they are not moderated by supportive supervision and intrinsic motivation. One dramatic finding is that neither of our proposed moderators influenced the relationship between either type of stress (work or

home) and routine performance. This is disappointing because routine performance is the core of business organizations and is critical to their success. At the same time, this intriguing difference is consistent with past research and theory that stresses the fundamental difference between the routine behavior that is characteristic of in-role behavior and more discretionary behavior such as creativity (Van Dyne, Cummings, and McLean Parks, 1995). In a hair care salon, a stylist's primary responsibility is cutting hair and generating sales revenue. This routine performance is easily monitored by the supervisor. If a stylist does not generate adequate sales, he or she will receive increased monitoring, coaching, and negative feedback from the supervisor. Since the supervisor is the salon manager, he/she will be motivated to increase the shop's productivity either by working with the stylist to improve sales and/or by initiating disciplinary procedures such as putting the employee on probation or replacing the employee with a new hire or another individual who presumably would generate more sales revenue. We speculate that generating sales revenue is a fundamental or in-role aspect of the job. As such, it would be less a function of intrinsic motivation or supportive supervision and more a function of ability, conscientiousness, and experience. Finding factors that strengthen the positive relationship of stress and routine performance and other factors that weaken the negative relationship between stress and routine performance is an important objective with practical implications for organizations. Finding factors that moderate these relationships (perhaps group level characteristics such as conflict and communication quality) is an important topic we suggest for future research.

The importance of supportive supervision for creativity at work was demonstrated by the significance of both interactions involving this construct. Supportive supervision neutralized the negative relationship between work stress and creativity. When supportive supervision was high, there was no relationship between work stress and creativity. Secondly, supportive supervision weakened the negative relationship between home stress and creativity. These are important findings especially for jobs in service

organizations where creativity can be key to customer satisfaction. Supportive supervision is under the control of the supervisor and thus is a lever that can be used to increase creativity in a variety of situations. For example, supportive supervision may facilitate creativity in stressful situations with fluctuating work loads, special projects with unusually tight deadlines, unenriched job designs, or conflict among work group members. Supportive supervision may also enhance creativity when an employee's home situation is stressful (perhaps based on demands made by family members, conflict with others in the household, health issues, or financial concerns). These findings suggest that when organizations place a high value on employee creativity, they should provide supervisors with training and set clear performance expectations that reinforce the importance of providing supportive supervision. Although some supervisors may be naturally supportive, others may not have this characteristic. Future research should examine the effect of supportive supervision in these and other circumstances involving work stress and home stress.

Intrinsic motivation moderated the relationships between both types of stress and satisfaction demonstrating that high intrinsic motivation neutralized the negative relationship of stress and satisfaction. In other words, an employee's internal psychological state of intrinsic motivation dominated and negated the external stress from both work and home stressors. This suggests the benefits of designing jobs with high levels of customer contact to enhance employee intrinsic motivation and, when possible, matching employees to jobs, based on their personal preferences for doing certain types of work. Organizations also may want to conduct training interventions and employee development programs that enhance intrinsic motivation. It also suggests possible benefits of hiring personal service workers who love their work and derive value from the process of performing their jobs. We speculate that these recommendations will have particular relevance in service jobs where the involvement of the employee and the customer in service delivery create ambiguity which can reduce intrinsic motivation for some individuals. This is especially important in service organizations where employee satisfaction is often related to customer service and customer satisfaction

(Gutek, 1995; Schneider, 19XX).

The study contributes to the stress literature in several ways. First, it expands the range of dependent variables typically examined in studies of stress in organizations by conceptually and empirically distinguishing the effects of stress on routine performance (measured by objective sales criteria), creativity, and satisfaction. Second, by investigating the contribution of home stress to work performance, the study adds to limited prior research which examines the effects of home life on work outcomes. It is interesting to note (see Table 1) that home stress is not directly related to routine performance and that work stress is not related to creativity. This suggests that home and work stress are differentially related to these aspects of performance. It is also worth noting the evidence that home stress spills-over into the work domain. Home stress has direct and indirect (moderated) relationships with creativity and satisfaction and an indirect relationship with routine performance. This suggests benefits from additional research that examines relationships between work and non-work domains. We concur with Zedeck (1992) that future research should examine stress and the Awork@ that occurs in family or non-work domains as well as the Awork@ that occurs in the work domain. Future research should also examine potential mediating and moderating processes in integrated studies that assess home stress and work stress. In addition, future research should assess other discretionary behaviors such as extra-role behavior and organizational citizenship (Organ, 1988) that may be differentially influenced by work stress and home stress.

Although our research has a number of strengths, as with all studies, this investigation suffers from several weaknesses. First, lacking an experimental design, we cannot draw conclusions about causality from this study. Our lagged design allows only moderate confidence in the probable causal ordering of the variables. Moreover, our model does not include provision for reciprocal effects. Future research might examine these relations using structural equation modeling and explore the direction of the effects in more detail. Second, the model implied here is under-specified since it excludes constructs that influence stress

(such as home situation demographics). Future research might examine these demographics as antecedents to both types of stress, and stress as a mediator of demographic effects on performance. Next, the negative relationship between stress and creativity may be the result of attentional focus, institutional priorities, and/or lowered intrinsic motivation. Future research should investigate the direct effects of these constructs as well as the potential mediating role of positive affect (cf. George and Brief, 1992) which may link stress-work behavior relationships. Lastly, generalizations from this study are limited to pink collar personal service jobs held, predominantly, by young females. While this population is not representative of all jobs in the service sector, the concurrent increase in the number of females working outside the home and the increase in personal service jobs in the service sector suggest that these findings may have relevance to other personal service jobs.

Personal care services are a growing industry in a growing service sector. This research begins the investigation into this under-researched domain with a study of pink collar hair salon stylists. We find that supervisors and managers need to be aware that moderate work stress enhances day-to-day routine performance, but that an employee's stress from their homelife detracts from this relationship and inhibits creativity at work. Supportive supervisors helped reduce the negative effects of work stress and home stress on creativity. An employee's love of their work, or intrinsic motivation, also reduced the negative effects of stress (work stress and home stress) on satisfaction. Overall, we conclude that it is important for managers to monitor and manage stress that results from an employee's job and their homelife for high performance, creativity, and morale. This is a new challenge for managers, but one that will ultimately yield important organizational results.

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**Table 1** Descriptive Statistics, Correlations, and Cronbach's Alpha (n=195)

Variable	M	SD	1	2	3	4	5	6	7	8
1. Routine Performance	2.22	1.016	----							
2. Creativity	4.90	1.01	.07	(.81)						
3. Satisfaction	5.40	1.06	-.06	-.01	(.87)					
4. Work Stress	2.45	1.32	.29***	-.11	-.52***	(.91)				
5. Home Stress	2.84	1.40	.04	-.25**	-.18*	.34***	(.91)			
6. Supportive Supervision	5.71	.97	-.05	.58***	.08	-.12	-.10	(.90)		
7. Intrinsic Motivation <sup>1</sup>	.34	.47	-.06	.19*	.07	.04	.15t	.16t	----	
8. Work Status <sup>2</sup>	.13	.34	.13	.10	.03	-.03	.00	-.03	.07	----
9. Sex <sup>3</sup>	1.98	.14	.13	.02	.03	-.03	-.06	.07	-.05	-.05

t p<.10, \* p<.05, \*\*p<.01, \*\*\*p<.001. Coefficient alpha values in parentheses on the diagonal.

<sup>1</sup> 0=Other, 1=Cutting Hair. <sup>2</sup> 0=Part Time, 1=Full Time. <sup>3</sup> 1=Male, 2=Female

**Table 2**

## Results of Hierarchical Regressions Predicting Routine Performance

STEP	VARIABLE	Model 1	Model 2	Model 3	Model 4a	Model 4b	Model 5a	Model 5b
		<u>H1</u>	<u>H2</u>	<u>H3</u>	<u>H4a</u>	<u>H4b</u>	<u>H5a</u>	<u>H5b</u>
1	Work Status <sup>1</sup>	.13t	.12	.09	.15t	.14	.11	.10
	Sex <sup>2</sup>	.16*	.15t	.16*	.04	-.01	.16t	.16t
	R <sup>2</sup>	.04	.03	.03	.02	.02	.04	.03
	F	2.63t	2.27t	2.23	1.18	.93	2.37t	2.02
2	Work Stress (WS)	.28***		.61***	-.11		.34***	
	Home Stress (HS)		.05	.24t		.07		.08
	Supervisor Support (SS)				-.18	-.02		
	Intrinsic Motivation (IM)						.03	-.07
	ΔR <sup>2</sup>	.08	.00	.09	.10	.00	.10	.01
	ΔF	12.81***	.32	6.85***	5.88***	.19	7.51***	.57
	R <sup>2</sup>	.12	.03	.12	.12	.02	.14	.04
3	WS x HS			-.50*				
	WS x SS				.45			
	HS x SS					-.02		
	WS x IM						-.11	
	HS x IM							.03
	ΔR <sup>2</sup>			.02	.01	.00	.00	.00
	ΔF			3.29*	.59	.00	.32	.02
	R <sup>2</sup>			.14	.13	.02	.14	.04
	R <sup>2</sup>	.12	.03	.14	.13	.02	.14	.04
	Adjusted R <sup>2</sup>	.10	.01	.11	.08	.00	.10	.00
F	6.17***	1.61	4.43***	2.98**	.44	4.09***	1.03	

t p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001. Beta values are from the final regression step.

<sup>1</sup> 0=Part Time, 1=Full Time. <sup>2</sup> 1=Male, 2=Female

**Table 3**

## Results of Hierarchical Regressions Predicting Creativity

STEP	VARIABLE	Model 6	Model 7	Model 8	Model 9a	Model 9b	Model 10a	Model 10b
		<u>H6</u>	<u>H7</u>	<u>H8</u>	<u>H9a</u>	<u>H9b</u>	<u>H10a</u>	<u>H10b</u>
1	Work Status <sup>1</sup>	.07	.10	.07	.10	.14*	.11	.15*
	Sex <sup>2</sup>	.02	.04	.04	.00	.08	.00	.01
	R <sup>2</sup>	.01	.02	.01	.00	.02	.01	.02
	F	.36	1.02	.66	.33	.97	.60	1.49
2	Work Stress (WS)	-.12t		-.01	-1.12**		-.15	
	Home Stress (HS)		-.25**	-.18		.52*		-.18*
	Supervisor Support (SS)				.16	.90**		
	Intrinsic Motivation (IM)						.19	.44**
	ΔR <sup>2</sup>	.01	.06	.07	.38	.38	.05	.11
	ΔF	1.78t	7.76**	4.57**	34.49***	37.29***	3.12*	6.79***
	R <sup>2</sup>	.02	.08	.08	.38	.40	.06	.13
3	WS x HS			-.11				
	WS x SS				1.13**			
	HS x SS					-.76**		
	WS x IM						-.03	
	HS x IM							-.28t
	ΔR <sup>2</sup>			.01	.03	.03	.00	.01
	ΔF			.13	5.96**	5.42**	.02	1.78t
	R <sup>2</sup>			.09	.41	.43	.06	.14
	R <sup>2</sup>	.02	.08	.09	.41	.43	.06	.14
	Adjusted R <sup>2</sup>	.00	.05	.05	.39	.40	.02	.11
F	.83	3.30*	2.12	15.81***	17.21***	1.49	3.75**	

t p<.10, \* p<.05, \*\*p<.01, \*\*\*p<.001. Beta values are from final step in regression.

<sup>1</sup> 0=Part Time, 1=Full Time. <sup>2</sup> 1=Male, 2=Female

**Table 4**

Results of Hierarchical Regressions Predicting Satisfaction

STEP	VARIABLE	Model 11	Model 12	Model 13	Model 14a	Model 14b	Model 15a	Model 15b
		<u>H11</u>	<u>H12</u>	<u>H13</u>	<u>H14a</u>	<u>H14b</u>	<u>H15a</u>	<u>H15b</u>
1	Work Status <sup>1</sup>	.02	.06	.04	.00	.02	.02	.02
	Sex <sup>2</sup>	.03	.01	.01	.11	.11	.04	.04
	R <sup>2</sup>	.00	.00	.00	.01	.01	.00	.00
	F	.30	.36	.28	.56	.53	.25	.3
2	Work Stress (WS)	-.56***		-.63***	-.60		-.61***	
	Home Stress (HS)		-.19**	-.05		.01		-.40
	Supervisor Support (SS)				-.06	.13		
	Intrinsic Motivation (IM)						-.15	-.3
	ΔR <sup>2</sup>	.31	.04	.31	.29	.03	.29	.06
	ΔF	77.74***	6.37**	37.21***	23.30***	2.09t	31.36***	4.8
	R <sup>2</sup>	.31	.04	.32	.30	.04	.29	.06
3	WS x HS			.11				
	WS x SS				.06			
	HS x SS					-.20		
	WS x IM						.26*	
	HS x IM							.52
	ΔR <sup>2</sup>			.00	.00	.00	.01	.0
	ΔF			.26	.02	.22	2.71*	7.7
	R <sup>2</sup>			.32	.30	.05	.31	.11
	R <sup>2</sup>	.31	.04	.32	.30	.05	.31	.11
	Adjusted R <sup>2</sup>	.30	.02	.30	.27	.00	.28	.08
F	26.20***	2.38*	15.03***	9.55***	1.09	13.36***	3.7	

t p<.10, \* p<.05, \*\*p<.01, \*\*\*p<.001. Beta values are from final step in regression.

<sup>1</sup> 0=Part Time, 1=Full Time. <sup>2</sup> 1=Male, 2=Female

**Table 5**

Summary of Results

<u>Variable</u>	<u>Routine Performance</u>	<u>Creativity</u>	<u>Satisfaction</u>
Work Stress (WS)	X		X
Home Stress (HS)		X	X
WS x HS	X		
Supervisor Support x WS		X	
Supervisor Support x HS		X	
Intrinsic Motivation x WS			X
Intrinsic Motivation x HS		*	X

\* Significant interaction, but form not consistent with hypothesis