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Abstract

The present investigation explores utilizes an enacted social support intervention among a group of working adults. Reductions in psychological and physiological stress were hypothesized to occur following the experimental intervention. Participants (N = 46) were all full time staff members at a large university and were randomly assigned to treatment or wait-list control groups. Treatment group members attended two 90 minute enacted social support meetings over the course of four weeks. Psychological (perceived stress and worklife conflict) and physiological (salivary cortisol) data were collected at both pretest and posttest periods. Results did not support the research hypotheses; however, a research question exploring the buffering effect of enacted support was answered in the affirmative. Enacted social support moderated the relationship between psychological and physiological stress at the pretest. The discussion presents a detailed assessment of theoretical and practical applications as well as suggestions for utilizing field social support interventions.

Keywords: Work and Life Balance, Stress, Enacted Social Support, Cortisol, Intervention

The Impact of an Enacted Social Support Training Intervention on Worklife Interaction and Stress in a Sample of Working Adults

Today, more than ever, Americans feel overwhelmed by the demands of work and family. In fact, 60% of college-educated workers reported that they need to work fewer hours in paid labor in order to feel less stress at work (Jacobs & Gerson, 2000) due to increasing and competing pressures between work and home (Golden, Kirby, & Jorgenson, 2006; Grzywacz & Marks, 2000). The perception that such pressures have increased over the past 20 years has led to discussions in both private and public spheres about the need for American workers and families to establish more "balance" between their work and home lives.

To a large extent, those discussions have focused on the negative effects of the stress associated with this constant push and pull for balance (Atkinson, 1992; Hawksley, 2007). Anecdotal and empirical studies report that these stresses result in physical and psychological disorders, including increased risk of a heart attack, hypertension, and diabetes (Chandola, Brunner, & Marmot, 2006), depression (Barnett, Marshall, & Pleck, 1992), worker resentment (Hegtvedt, Clay-Warner, & Ferrigno, 2002), role conflict (Williams & Alliger, 1994), and job dissatisfaction (Hughes & Bozionelos, 2007), to name a few.

Extant research on worklife balance primarily has addressed the psychological effects of worklife stressors on workers from a management perspective. Consequently, much of that literature examines how workers can help themselves to improve their stressful working situation by navigating complex institutional policies (see Friedman, Christensen, & Degroot, 2000; Friedman & Greenhaus, 2000; Kossek & Friede, 2006). This line of research typically focuses on the development of formal human resources policies, increasing flexibility in working conditions, and the development of a supportive organizational culture. Despite these seemingly useful institutional strategies, some researchers argue that such institutional changes are simply a way for organizations to control their costs and do very little to assist workers directly (Friedman et al., 2000; Friedman & Greenhaus, 2000).

In an effort to understand both psychological and physiological stress effects and how they can be reduced, we first explicate the history of worklife conflict and the need for balance, and then we link

sources of worklife conflict to psychological and physiological stress. Finally by utilizing the enacted social support model (Goldsmith, 2004), we propose an experiment utilizing an intervention technique that will be hypothesized to reduce stress in workers related to worklife balance concerns.

Review of Literature

Worklife Balance and Conflict

The study of worklife balance has become increasingly popular in academic literature over the past 30 years. Much of the extant research on the interface between work and family has focused on understanding how these two domains conflict. For example, Eisenberg, Goodall, and Trethewey (2007) conceptualize worklife conflict as "the simultaneous influence of work on members' lives away from work…and the influence of personal life and responsibilities and aspirations on members' experiences at work" (p. 203). Despite this useful conceptualization, no consensual definition of worklife balance or conflict exists because divergent empirical findings have contributed to a lack of agreement on the construct.

Workers, organizational stakeholders, and policy makers tend to view worklife issues through metaphorical lenses. Metaphors are powerful anecdotal tools that can be stressful to individuals, especially if antithetical to individual lived experience (Halpern & Murphy, 2005). One powerful metaphor commonly used in literature is that of worklife *conflict*, whereby the domains of work and life offset or counterbalance one another (Wilensky, 1960). In this view of worklife balance, accomplishments in one aspect of workers' lives will usually lead to a deficit in another. In other words, the domains of work and life are in a constant push-and-pull, with the individual attempting to find an equillibrium. In fact, the term conflict suggests that the competition between work and life is so difficult they are almost irreconcilable (Pitt-Catsouphes, Kossek, & Sweet, 2006). This conceptualization of worklife led Halpern & Murphy (2005) to argue that "These metaphors are not only anxiety producing; the message that they are sending is wrong. Work and family are not a zero-sum game" (p. 3). While the metaphor of worklife conflict is not the only metaphor it can be a powerful metaphor for many American workers.

Another metaphor commonly used to understand worklife issues is the idea of spillover, whereby work and life reflect each other (Grzywacz & Marks, 2000). Spillover occurs when "a person's subjective experiences at work or at home arouse a set of feelings that are brought into the other arena and affect the tenor and dynamics of life in that area" (Barnett, 1994, p. 647). In other words, spillover occurs when an individual experiences distress at home and brings that distress with him or her into the workplace and vise-versa. While the relationship between these two domains has certainly been examined by researchers (e.g. Barnett, 1994; Golden et al., 2006; Grzywacz & Marks, 2000; Keene & Quadagno, 2004; Kirby, Golden, Medved, Jorgenson, & Buzzanell, 2003; Williams & Alliger, 1994), the spillover metaphor may not accurateley reflect how individuals attempt to manage their day-to-day lives and, therefore, can induce feelings of dissonance (Halpern & Murphy, 2005). This metaphor does not argue that work and life are in competition (like the conflict metaphor does), it still argues that these domains are separate from one another and each contain predetermined space for tasks before reaching capacity.

Though disparate, these worklife metaphors do share one common theme—that both domains influence individual wellbeing or lack thereof. Another potentially more useful metaphor -- worklife interaction -- was coined by Halpern and Murphy (2005) and focuses specifically on this theme to shed light on the role stress plays in work and life. That is, this conceptualization suggests that considerable overlap exists between working life and non-working life and that these two domains are not necessarily unique spheres of influence on the individual. Furthermore, the additive effect of each domain's influence on the other is more important than the individual effects of each domain on the person. Consequently, those who embrace this conceptualization of worklife issues have focused more on the interface between family and work rather than on explaining how one might achieve balance between these two spheres. In this view, the way that an individual frames his or her worklife experiences can affect the amount of distress experienced and that distress can result in a variety of consequences in either the workplace or home, or both.

Effects of Worklife Stress

Linkages exist between work life stress and psychological and physiological outcomes for individual workers. For instance, Hughes and Bozionelos (2007) discovered that both male and female employees expressed similar levels of dissatisfaction with their employers for not having clearly defined work-family leave programs. Participants in their study said that the ability to balance work and non-work life were "the main causes of job dissatisfaction, job turnover, and absenteeism" (p. 151). However, simply defining leave policies may not be good enough for individuals. In fact, Ransford, Crouter, and McHale (2008) found that when workers experienced more work pressure with little supervisor support for their family lives, they reported lower amounts of marital satisfaction and had higher instances of parent-adolescent conflict.

In a large study of academic professionals, Houston, Meyer, and Paewai (2006) found that most of the respondents said that they felt a great deal of stress in their organizations. Working women also report more daily psychological stress with attempting to manage their work and non-work lives than do men (see Buzzanell et al., 2005; Deutsch, Lussier, & Servis, 1993; Martha, Shelley, & Lynn, 2005; Thiede-Thomas & Ganster, 1995; Tytherleigh, Jacobs, Webb, Ricketts, & Cooper, 2007; Zacharias, 2005). Much of this stress is related to employees working longer hours on unpaid responsibilities with little support from their organizations (Beaujot & Andersen, 2007). Bergman, Ahmad, and Stewart (2008) studied 40 working professionals and found that stress hormones were significantly associated with participant sex and responsibilities at home. In fact, they found that the higher the level of perceived responsibility at home, the greater the individual's stress level. Moreover, greater home responsibility led to a significantly lower level of intraday change in the levels of stress hormones suggesting that their body's regulatory system was not functioning properly. Thus, work-life interaction is not only a psychological problem, but also a physiological one.

As the above findings suggest, one of the more insidious outcomes of psychological appraisal of stress related to work life stress is its physiological effects on the body. Powers (2004) argued that a lack of flexibility to accomplish family and personal tasks is a major cause of this physiological stress in workers and that it can spread to workers' families. Martha, Shelley, and Lynn (2005) indicate that

women are especially vulnerable to this negative outcome since they typically have a larger workload between managing their duties at home and at work.

Taken together, these studies offer convincing evidence that worklife issues are a stressor for many Americans, that chronic stress can dysregulate the body's natural stress response, and that dysregulation of that system can lead to a variety of severe health problems. Additionally, the way that individuals psychologically appraise a stressful situation affects their bodies' physiological response.

Human Stress Response

The human body processes information from the outside world and reacts to that information with biological responses. The body has multiple responses to the different stimuli experienced; one such stimulus is a perceived threat to the organism. As Floyd and colleagues (2007) argued, these threats can be any "physical, mental, emotional, financial, or relational" (p. 2) challenge to an organism's wellbeing. These threats or challenges are called stressors and need not be actual or genuine "but only perceived as genuine" (Floyd et al., p. 2). Stressors can be acute (e.g. the completion of a public speaking task), chronic (e.g. caring for a sick family member) or distant (e.g. a traumatic experience in a person's past) with each having a different effect on the body's response (Segerstrom & Miller, 2004). The appraisal of worklife conflict as potentially burdensome or threatening to the individual can activate the stress response in the body. On an acute level, this stress response may be adaptive; however, on a chronic level, this stress response can be detrimental to the overall human system.

The human body responds to psychological threats through physiological mechanisms by circulating a higher amount of corticosteroids in the bloodstream, with the primary hormone being cortisol (hydrocortisone, compound F), which acts on a variety of sub-systems in the body. This physical response occurs after a situation is appraised cognitively as being stressful, which arouses a hormonal cascade termed the hypothalamic-pituitary-adrenalcortical axis (HPA) response. When the body is experiencing a reaction to a stressor, the HPA axis response is more active, producing higher amounts of cortisol in larger pulsatile bursts. In response to an acute stressor, free amounts of cortisol return to basal levels once the body determines the appropriate coping mechanism (Grossi et al., 2005).

The overall circadian rhythm of cortisol in a healthy adult is rather stable with "several secretory episodes of short duration and high amplitude" (Fries, Dettenborn, & Kirschbaum, 2009, p. 67). The highest production of cortisol occurs late at night with the peak being in the early morning and gradually declining throughout the day. Within 20 to 30 minutes after awakening, there is a rapid increase in cortisol levels termed the cortisol awakening response (CAR). The CAR is distinct phenomenon from the circadian pattern, but is representative of that rhythm (Fries at al.). This distinct feature of the circadian rhythm of cortisol is a reliable biomarker of the activity of the HPA system as a whole (Pruessner, Hellhamer, & Kirschbaum, 1999; Wüst et al., 2000) and is easier to obtain from participants than measuring total diurnal variation (Clow, Thorn, Evans, & Hucklebridge, 2004). Furthermore, more than 75% of healthy adults exhibit this awakening pattern (Fries et al.). The measurement of CAR can be computed by taking the total area under the measured curve (AUC) from waking, 30 minutes post waking, 45 minutes post waking, and 60 minutes post waking (Hellhammer et al., 2007; Kurdek & Wüst, 2008; Nicolson, 2008). Blunted (or flattened curves) CAR responses have been associated with a variety of psychosocial variables such as loneliness, lack of social recognition, burnout, and perceived global stress (Clow et al., 2004).

Strong relationships between the interaction of work and life and specific individual health outcomes have begun emerging in literature. For instance, Hansen and colleagues (2006) assessed a sample of 437 employees and found that workers who experienced bullying at work reported lower social support in their workplaces and had dysregulation of their HPA axis (as measured by CAR). This relationship was more pronounced when the bullying was chronic (as defined as greater than 6 months in length). To address the relationship between worklife issues and cortisol, Eller, Netterstrom, and Hansen (2006) conducted a study of 55 healthy women and 28 healthy men, all of whom worked (on average 37 hours per week). These data demonstrated that time pressure, defined as "the feelings of being busy and under pressure" (p. 282), and effort-reward imbalance were significantly related to higher levels of cortisol in women. For men, higher degrees of effort, effort-reward imbalance, and feelings of being overcommitted between work and life were significantly related to higher levels of cortisol. Other

researchers have echoed these links with cortisol production especially in relation to financial strain (Steptoe, Brydon, & Kunz-Ebrecht, 2005), peer anger expression at work (Steptoe, Cropley, Griffith, & Kirschbaum, 2000), and overcommitment in the workplace (Steptoe, Siegrist, Kirschbaum, & Marmot, 2004). Furthermore, chronic stress has been linked with a downregulation of the immune system, coronary heart disease, Chron's disease, rheumatoid arthritis, and eventual mortality (Segerstrom & Miller, 2004). What happens while individuals are at work can have a deleterious effect on their health; therefore, seeking proper intervention methods is an important task for organizational researchers.

Stress Intervention Methods

Researchers have begun to explore ways to create successful health-related interventions that do not use traditional medical techniques (i.e., pharmaceutical techniques). These non-traditional intervention techniques attempt to change individuals' behavioral, affective, or psychological responses to stress. This approach is viewed as a *complementary medicine* model because it can be used in addition to traditional medicine to improve negative physiological symptomology. Complementary medicine and alternative medicine have been shown to improve a variety of medical conditions (Cincotta et al., 2006).

In the workplace, stress management techniques and training have been successful in reducing the negative effects of stress. In a study of 48 healthy adult men, Gaab et al. (2003) randomly assigned participants to one of four stress-management training conditions. Participants met in groups on two separate occasions and were trained on stress inoculation and cognitive reframing techniques. This training instructed participants on both the skills and knowledge necessary to deal with complex daily stressors. During their next laboratory visit, researchers administered the Trier Social Stress Test (TSST) to elicit a stress response. Individuals who had participated in the stress inoculation and cognitive reframing training had a significantly lower cortisol response to the TSST and faster recovery times (to baseline). Similar replication of this finding was conducted by Vocks, Ockenfels, Jurgensen, Massgay, and Ruddel (2004) with blood pressure reactivity. They found that individuals who participated in a cognitive-reframing stress-management training intervention had a significantly lower reactivity to the TSST than individuals in the control group.

While psychological interventions have the ability to modify physiological outcomes, behavioral or communicative interventions have a similar effect. For instance, recent work by Floyd and Colleagues has linked affectionate communication (e.g. kissing, hugging, or writing a love letter) to diurnal variation in salivary free cortisol (Floyd, 2006), a reduction in total cholesterol (Floyd et al., 2009), and even hormonal stress recovery after a stress-inducing activity (Floyd et al., 2007). Based on this line of research, one can determine that communicative interventions have unique and profound effects on the human physiological stress response. In a similar clinical trial on the effects of training and stress reduction for post-operative breast cancer patients, Andersen and colleagues (2004) found that their longitudinal social support intervention reduced anxiety and caused a variety of behavioral improvements in the participants by allowing individuals to share their problems with others who face similar concerns. Collectively, these findings provide support for the belief that training interventions can have effects on the stress response at an acute level.

Social Support and Training

Research related to social support emerged around the mid-1970s with an exploration of why some individuals are more capable of dealing with the potentially negative effects of stressors in their lives (Goldsmith, 2004). Social support is defined as information, emotional messages, and material goods exchanged between individuals in a variety of contexts (S. Cohen & Wills, 1985; Goldsmith, 2004; House, 1981). In an organization, the exchange of socially supportive transactions occurs between co-workers as well as from supervisors to subordinates. In a family, many individuals comprise the social support network including spouses, children, and close relatives. Supportive networks also can include distant family and friends.

The types of supportive messages individuals exchange vary, depending on the context of the relationship between those individuals. Goldsmith (2004) developed a model of socially supportive transactions labeled “enacted support.” In this model, social support is communicative. Enacted support is fundamentally different from other types of support because it is situated within the interpersonal setting and focuses on not only the perception of or amount of support, but includes how the support was given

or received. In this case, the cognitive appraisal of a transaction as being supportive comes directly from the way that the message was communicated. For Goldsmith, the types of enacted support include:

> *Emotional support* (expressions of caring, concern, empathy, and reassurance of worth), *informational support* (including not only information but also advice or new perspectives on a problem), and *tangible support* (offers of goods and services) (p. 13).

In an organization, enacted support occurs frequently. For instance, when co-workers discuss a problem they are having with their children and another co-worker empathizes and then provides them with a new outlook on the situation, they have engaged in an enacted support transaction. In this instance, the supportive transaction is not simply a perception of support, but actually tangible. Some organizations encourage this type of relationship between co-workers, while others discourage it. The culture of the organization will determine the norms associated with the way that support can exist where, "levels of co-worker support seem to reflect the influence of supervisory behavior, organizational and job structure, and the values and structure of the organization and the larger society" (House, 1981, p. 100). Despite the complexities, the benefits to both workers and organizations of enacted social support transactions are plentiful.

Social Support as a Stress Buffer. Individual-level coping mechanisms for stressors differ depending on a variety of variables. Moreover, an individual's level of stress may be directly related to how much they feel they have a supportive network (S. Cohen & Wills, 1985). The interaction between stress and social support is called the *buffering hypothesis* (S. Cohen & Wills, 1985; House, 1981). "This is termed the *buffering* model because it posits that support 'buffers' (protects) persons from the potentially pathogenic influence of a stressful event" (S. Cohen & Wills, 1985, p. 310). In this instance, a stressor is only appraised as being potentially harmful when an individual does not have the adequate resources to cope with it. In the context of worklife interaction, if individuals believe they do not have the resources available to cope with a situation that arises at home, they will experience that situation as harmful to their wellbeing and thereby stressful. Since an enacted training program would service the dual

purpose of allowing a worker to cognitively evaluate their support network as large and to provide them with the proper skills to develop their network, the following hypotheses are presented:

H_1: Workers attending a social support and worklife training intervention program will have greater cortisol awakening response variability than those workers in the control group.

H_2: Workers attending a social support and worklife training intervention program will have greater reductions in their measures of perceived global stress and work family conflict than those workers in the control group.

While research evaluating the stress-buffering effect of perceived support is rich, research on the stress buffering effect of enacted support is inconclusive; therefore, the following research question is presented:

RQ: Does enacted social support act in a stress-buffering capacity?

Method

In order to explore the relationship between an enacted social support training intervention and physiological stress, a field-experiment was employed. This experiment, discussed in detail below, involved two groups, one group of participants who attended a social support and worklife training intervention and a control group. Measures of physiological stress (operationalized as the cortisol awakening response), psychological stress, and worklife conflict were analyzed. The appropriate institutional review board approved the following methodology.

Participants

Recruitment occurred by electronic marketing to a variety of e-lists of employed full-time staff members in academic and non-academic departments at a large southwestern university. Potential participants first were directed to an online prescreening measure, administered by questionpro.com, to determine their eligibility for the study[1]. A total of 132 participants completed prescreening measures and a total of 59 participants were selected for an initial meeting with the first author to be consented and given the proper information about the study's protocol, including the total compensation of $50.00 for their participation throughout the study. Six potential participants declined consent.

Participants (N = 47) were nine men and 38 women, ranging in age from 24 – 60 years old (M = 40.77 years, Mdn = 38, SD = 10.75). Participants worked in their current position between 6 months – 23 years (M = 5.37 years, SD = 5.20) and worked an average of 39.47 hours per week at their place of employment (Mdn = 40, SD = 7.53, *Range = 10 – 50 hours*). Most participants (n = 34) identified themselves as "Euro-American/Caucasian/White." Participants were asked to report their highest level of education, with 19 indicating they had earned a 4 year university degree, 17 indicating a Master's degree, five participants indicating they completed some college, 3 indicating they earned a 2-year college degree, and one participant with a doctorate. Based on the number of individuals who successfully qualify to participate, two groups were created: Treatment group (n = 23) and control group (n = 24). Group assignment was determined using randomization software and the groups were equivalent on pretest measures of cortisol[2]. Control group participants were told that they were wait-listed for group meetings.

During the two-weeks prior to the first intervention, participants were asked to complete the pretest measurement. Two weeks after the conclusion of the final intervention, all participants were again asked to complete the posttest measurement. The pretest and posttest measurements were identical and are described below.

Psychological Measures

Perceived Global Stress. To measure participants' reported level of perceived global stress, Cohen, Kamarck, and Mermelstein's (1983) 10-item Perceived Stress Scale (PSS-10) was used. The PSS-10 has been validated and is used widely in psychological stress research. In fact, the original validation study utilized a sample of 332 college students and found high concurrent validity (Cohen et al., 1983). Furthermore, given the 10-item nature of this scale, the measure is particularly parsimonious over other longer measures for studies utilizing multiple dependent measures, such as the present investigation. The measure asks participants to rate how often they feel a negatively impacted by stressors in their lives on a likert-type scale with anchors ranging from 1 (never) to 5 (very often), with "3" being the hypothetical midpoint of each scale item. Since the scale deals with global psychological stress, items were not modified to refer to any specific situational context (i.e., workplace).

The measure possessed high levels of internal consistency with Cronbach's alpha for the pretest at .92 (M = 28.43, SD = 7.27) and posttest at .91 (M = 28.13, SD = 7.05). Although the measure is designed to be unidimensional, the pretest items were still submitted to a principal components analysis with varimax rotation. Only factors with eigenvalues greater than 1.00 were extracted, verified by the scree plot, which resulted in a single-factor solution accounting for 59.48% of the variance (KMO = .894, Bartlett's test of sphericity, χ^2 (45) = 257.95, $p < .001$). Based on these results, the average value of a participant's score on the PSS-10 will be used in subsequent analyses.

Worklife Conflict. To evaluate feelings of work-family conflict, the 8-item work-family conflict measure was used (Gutek, Searle, & Klepa, 1991). This measure has two reported distinct dimensions, work-interface with family (WIF) and family interface with work (FIW). Each of the 8 items is measured on a 5-point likert scale with 1 being strongly disagree and 5 being strongly agree, with higher numbers indicating more feelings of conflict and "3" being the hypothetical midpoint of the scale. This measure has been consistently used in research projects to ascertain the degree to which individuals feel their work interferes with their family lives and vice-versa. For the present investigation, the measure also had high internal consistency for both measures, except for the Family Interface to Work measure during the posttest (Pretest Cronbach's Alpha for WIF = .87, for FIW = .81).

Enacted Social Support. The Social Support Questionnaire Short-Form (SSQSR; Sarason et al., 1983) was utilized to measure actual social support. The SSQSR asks participants to indicate the number of individuals (up to nine) they rely on for certain supportive tasks (six categories) and to report their satisfaction with that support network. The instrument was scored by adding the total number of support network members indicated for a maximum possible total of 54 (nine maximum members for each of six items) and divided by six for an average on the measure. The score for the items probing participant satisfaction with support received were also averaged together. Both the average size of participants' support network and their average satisfaction were used in subsequent analyses.

Physiological Measurement

To measure the cortisol awakening response (CAR), multiple time-specific measurements were collected by participants on two separate sequential days (Hellhammer et al., 2007) for both pretest and posttest periods. For proper assessment, participants were given strict written and verbal instructions to take one sample immediately after awakening (Awakening Cortisol +0), 30 minutes post awakening (AC_{+30}), 45 minutes after awakening (AC_{+45}), and 60 minutes after awakening (AC_{+60}). These data points represent the cortisol awakening response (Kudielka, Buchtal, Uhde, & Wüst, 2007; Kudielka & Wüst, 2008; Nicolson, 2008).

For salivary collection, participants were given eight clearly labeled plastic tubes containing a salimetrics oral swab (SOS) collection device (Salimetrics, State College, PA). Immediately upon waking, participants were asked to place the SOS under their tongues for one to two minute. The participant placed that swab back into the plastic tube and stored them in their refrigerator for return to the principal investigator. Immediately upon collection by a member of the research team, the tubes were placed in a standard laboratory freezer (-20°C). Participants were asked to utilize the salivary collection devices on two subsequent days two weeks preceding the first training meeting. The same procedure was utilized during the posttest phase of the study, with collection occurring two weeks after the last intervention for all participants in the study.

Analysis occurred at the campus' clinical research unit, which handles laboratory and clinical samples of human hormones. On the day of analysis, cortisol samples were taken from the freezer, thawed, and centrifuged at 3000 RPM for 15 minutes to extract the fluid from the SOS devices. The samples were analyzed using a competitive enzyme-linked immunoadsorbent assay (ELISA) kit by Salimetrics (State College, PA). All cortisol samples were first cataloged and 10% of the samples were randomly selected for duplicate testing. Once the duplicate testing confirmed coefficients of variability (CV) under 10% (the acceptable threshold for the testing kit), the remaining samples were analyzed in singlet. All other CVs were under 10%. Analysis used 25 µL of saliva per determination. The assay kit has a lower limit of sensitivity of 0.003 µg/dL, and a standard curve range from 0.012 to 3.0 µg/dL.

Method accuracy, determined by spike and recovery, and linearity, determined by serial dilution are 100.8% and 91.7%, respectively. Values from matched serum and saliva samples show the expected strong linear relationship, r (63) = 0.89, $p < 0.001$ (Salimetrics, State College, PA). Samples were analyzed using a Tecan GENios plate reader with a 450nm filter. Interpolation used a 4-parameter sigmoid minus curve fit. Prior to subsequent analysis using an area under the curve calculation with respect to increase as well as absolute increase from awakening, all samples taken for the pretest and for the posttest were averaged together (i.e., awakening concentrations for day 1 and day 2 during pretest were averaged, AC_{30} concentrations were averaged for day 1 and day 2 during pretest and so on).

Social Support Intervention and Training

The present investigation's design closely mirrors Anthony and O'Brien's (2002) study of group-based social support interventions. Similar to their study, participants in the present investigation were randomly assigned to a treatment condition and participated in a 4-week intervention program focused around received and enacted social support. On the first day of the social support intervention, members of the treatment group met with the principal investigator in small groups (approximately 13 members in each group). The social support meetings occurred on Monday and Tuesday evenings starting at 15:30 and lasted for 90 minutes each. The time was selected based on participants' schedules and to accommodate a standard work schedule. The social support sessions were offered during the first week of the four-week intervention period and two weeks later.

The social support meetings had two goals. The first goal was to bring awareness to social support in the workplace and the second goal was to allow participants to interact with one another, share their concerns about their worklife balance issues, provide instrumental support to one another, and share methods for eliciting support from their own workplace peer networks (see Appendix). Each social support session was video and audio-recorded to ensure that the material was presented consistently across sections. After the last cortisol collection at the study's conclusion, each participant was debriefed and given their final payment.

Results

Measuring Cortisol Variability

Physiological researchers have seldom agreed upon a common measurement of the cortisol awakening response. Despite that, two general guidelines have emerged in human psychophysiological research as a response to a need for common measurement techniques: Measurement of the CAR should account for both the magnitude of the response and the time between sampling points (Chida & Steptoe, 2009). To that end, two separate measurements of the CAR are presented: Area under the curve with respect for increase[3] and absolute increase from awakening[4] (Fekedulegn et al., 2007; Pruessner, Kirshbaum, Meinlschmid, & Hellhamer, 2003).

Hypothesis 1

The first hypothesis predicted that those individuals in the treatment group have more cortisol awakening response variability than those in the control group. To test this hypothesis, a mixed-effects MANOVA was computed with group (control v. treatment) as the between-subjects factor and time (pretest v. posttest) as the within-subjects factor. Two dependent variables, AUC_I and ABS_{INC} were included in the model (see Table 1 for pretest correlations).

At the multivariate level, the between-subjects effect was nonsignificant, Wilks' $\Lambda = .914$, F (2, 40) = 1.88, $p = .17$, as was the within-subjects effect, Wilks' $\Lambda = .976$, F (2, 40) = .501, $p = .61$. Furthermore, the group-by-time interaction effect was also nonsignificant, Wilks' $\Lambda = .986$, F (2, 40) = .276, $p = .76$.

At the univariate level , the effect of time on AUC_I was nonsignificant, F (1, 41) = 1.03, $p = .32$, $\eta^2 = .02$ as was the effect of time on ABS_{INC}, F (1, 41) = .242, $p = .63$, $\eta^2 = .00$. The univariate effect of group (control v. treatment) on AUC_I was nonsignificant, F (1, 41) = 3.83, $p = .057$, $\eta^2 = .09$ as was the effect of group on ABS_{INC}, F (1, 41) = 1.76, $p = .19$, $\eta^2 = .04$. The time-by-group interaction for AUC_I was also nonsignificant, F (1, 41) = .032, $p = .86$, $\eta^2 = .001$ as was the time-by-group interaction for ABS_{INC}, F (1, 41) = .29, $p = .60$, $\eta^2 = .01$. For illustrative purposes, Table 2 reports the means, standard errors, and 95% confidence intervals. Based on these results, Hypothesis 1 is not supported.

Hypothesis 2

The second hypothesis predicted that those individuals attending a social support training intervention have reductions in their levels of perceived global stress and worklife interaction (work-interface with family and family-interface with work measures). To test this hypothesis, a mixed-effects MANOVA was computed with group (control v. treatment) as the between-subjects factor and time (pretest v. posttest) as the within-subjects factor. Each dependent variable was correlated with one another (average $r = .504$).

At the multivariate level, the between-subjects effect was nonsignificant, Wilks' $\Lambda = .85$, F (3, 36) = 2.19, $p = .11$, as was the within-subjects effect for Time, Wilks' $\Lambda = .88$, F (3, 36) = 1.64, $p = .20$. Furthermore, the group-by-time interaction effect was also nonsignificant, Wilks' $\Lambda = .90$, F (3, 36) = 1.40, $p = .23$.

At the univariate level, none of the within-subjects effects was significant for either time or the time-by-condition interaction with effect sizes not rising above 5% for any of the effects. However, there was a significant between-subjects effect for work-interface with family, F (1,38) = 6.62, $p = .014$, $\eta^2 = .15$. For this effect, the mean for the control group was 2.65 ($SE = .20$, 95% CI = 2.25 – 3.06) and the mean for the treatment group was 3.36 ($SE = .19$, 95% CI = 2.98 – 3.74). Given these results, Hypothesis 2 is also not supported.

Research Question

Individual pretest responses on the social support questionnaire (SSQSR) were correlated with pretest self-reports of the dependent variables. The correlations indicate that appraisal of one's social support network as large or satisfactory could improve the psychological feelings of stress and work life interaction conflict (see Table 1). In fact, some of the correlations were strong, especially the correlation between social support and perceived stress with a moderately large coefficient of determination ($r^2 = .15$) as well as social support satisfaction and perceived stress ($r^2 = 0.20$). All correlations between social support (both member quantity and satisfaction) and the stress scales (perceived stress and worklife interface) support theoretic underpinnings that social support works to buffer the effects of psychological

stress on the body's physiological response. Based on that premise, it would make sense that social support would moderate the relationship between perceived and physiological stress (S. Cohen & Wills, 1985; House, 1981).

To test that effect, a hierarchical linear regression was computed. Prior to analysis, the two predictor variables, pretest perceived stress and enacted support average, were mean centered. The first block of the regression model included the two mean-centered predictors and the second block included just the interaction variable (product of the centered perceived stress and social support predictors) with the criterion variable being cortisol absolute increase from awakening for time one (ABS_{INC}). The first block, containing just the mean-centered predictor variables was significant, F (2, 42) = 3.58, p = 0.037, R^2 = .15, Adjusted R^2 = .105. The full interaction model was also significant, F (3, 41) = 5.05, p = .005, R^2 = .27, Adjusted R^2 = .217.

The relationship between perceived stress and absolute cortisol increase from awakening varies with social support, t(42) = -2.64, p= .012. The stress-by-social support interaction accounted for an additional 12.4% of the variance in absolute increase from awakening than the model containing only stress and social support as predictors, R^2 change = .124. Regression coefficients and squared part (semipartial) correlations squared are reported in Table 3. Those individuals reporting high levels of perceived stress and low levels of social support also had the highest percentage increase in absolute cortisol levels from awakening, as illustrated in Figure 1 (simple slope lines for the interaction at -1 SD, SD, and +1 SD). Moreover, those individuals with low levels of perceived stress and high levels of social support also have a high percentage increase in absolute cortisol after awakening. Finally, those individuals who report a medium amount of perceived stress have a decreasing amount of cortisol absolute increase after awakening the larger their reported social support network was. The unstandardized regression coefficient for the interaction term indicated that the slope of the regression of ABS_{INC} on social support decreases by 19.83 units for every one-unit increase in perceived stress. Indeed, social support moderates the relationship between psychological and physiological stress and could act as a buffer for those individuals who are reporting high levels of perceived stress. For the purposes of the

pretest results in the present investigation, the stress buffering perspective of enacted support can be articulated with these data, thus answering the research question in the affirmative.

Discussion

The present investigation sought to determine if an experimental, enacted social support intervention could reduce participants' reports of stress and worklife conflict as well as increase cortisol awakening response variability. The literature reviewed revealed that social support could act as a stress buffer to improve both psychological and physiological reports of stress. While traditional social support models posit that the perception of a large supportive network is an important predictor for stress reduction in both work and home, the enacted social support model (Goldsmith, 2004) argues that the way individuals communicate social support is a more important explanation for reductions in stress than the perception of having a social support network. To that end, a social support intervention program was instituted that focused primarily on the process of communicating social support with others. In those sessions, peers with similar job functions discussed their strategies for giving and receiving social support in their own departments. These intervention goals were important tests of the theoretic underpinnings of the enacted support model.

Hypothesis 1

The first hypothesis predicted that individuals in the treatment group would have greater cortisol awakening variability than those individuals in the treatment group, as a function of time. The purpose of this hypothesis was to explore the physiological effects of the social support intervention program. Support for this hypothesis required a time-by-group interaction effect for both AUC_I and ABS_{INC}. The intervention in the present investigation was designed to educate participants about social support and provide them with specific skills necessary to improve the size and quality of their own social support networks by focusing specifically on the style and types of communicative transactions. The utility of this particular intervention was that participants could use the skills learned to maximize the types and amount of socially-supportive communication between themselves, their colleagues, and their family members. Information discussed during the intervention centered on how to elicit support and how to deliver

supportive messages. The delivery of supportive messages was important, as social support is a reciprocal phenomenon (Burleson, Albrecht, & Sarason, 1994). Although this intervention would be relatively easy to implement in active organizations, the results of hypothesis 1 were nonsignificant, indicating potential issues with the design of the intervention.

A possible explanation for this is that individuals in the treatment group unknowingly provided social support to members of the control group. This situation is possible, as individuals were not assigned to control versus treatment groups based on their department of affiliation at the university. Therefore, members of the same department could have been assigned to both treatment and control groups.

An evaluation of marginal means (reported in Table 2) sheds additional light on the potential for interparticipant bias, as delineated above. Both control and treatment group AUC_I decreased from pretest to posttest (although not significantly). However, for the control group ABS_{INC} remained relatively stable from pretest to posttest while for the treatment group, ABS_{INC} fell from about 64% to about 51% from pretest to posttest, respectively. While seemingly counterintuitive, this result is not unique in literature. In fact, Seidman, Shrout, and Bolger (2006) found that certain aspects of an enacted support intervention could actually increase distress among those participants in an intervention. In their simulation study, they argue that perceived support is typically associated with reductions in psychological and physiological stress, while actually giving support can increase perceptions of distress. This is especially true at the start of an intervention as participants are trying hard to give support to others, which can be labor-intensive.

Hypothesis 2

The second hypothesis for the present investigation primarily was concerned with the psychological variables in relation to the intervention. No significant time-by-group interaction effects were detected in these data, but one main effect for group on the work interface with family dimension of worklife conflict was detected, accounting for about 10% of variance. However, an interpretation of this effect is not necessarily useful, as both groups decreased in their work interface with family measures

about the same (i.e., no effect for Time was detected). For the other variables, no main or interaction effects were detected.

While the lack of significant results for hypothesis 2 is discouraging, a few issues with the design of this study could help to explain why the predicted relationship was not detected. Generally, participants did not report much stress or worklife conflict resulting in a possible suppression of any statistically significant effects. An alternate explanation, discussed in the context of hypothesis 1, may be that the intervention failed to work partly due to the introduction of a requirement for the treatment group to communicate more support to others. In that case, as Seidman et al. (2006) point out "a causal link between enacted support and distress does exist but that it may stem from distress increasing support rather than the reverse" (p. 53). Perhaps in the context of this hypothesis, individuals in the treatment group did not feel the need to increase their support drastically, as they were not experiencing greater distress from the onset of the study. In this model, increases in social support may only be detected if the individuals feel the necessity to increase their social support due to some stress-producing event in their lives. If individual participants had reported greater amounts of stress and worklife conflict during the pretest, the intervention may have been successful mostly because those participants would have had a specific point of distress as a method actively to engage in supportive transactions. Despite the nonsignificant finding for hypothesis 2, this study does shed some light on the nuances and complexities of administering a social support intervention *in situ*.

Research Question

The research question sought to determine if an enacted support intervention would act as a stress buffer. To that end, the results of a hierarchical regression were statistically significant with an indication that received support did act as a moderator between perceived stress and absolute increase in cortisol from awakening. The interaction accounted for an additional 12% of the variance between a regression model predicting ABS_{INC} with perceived stress and social support alone (see Table 3). Participants during the pretest who reported low levels of perceived stress and low levels of social support had the lowest absolute increase in their cortisol awakening response while those individuals reporting high levels of

perceived stress and low social support had the highest increase in ABS_{INC}. Despite the significant result of the moderation effect, some confusion still exists within these data as to the relative importance of cortisol absolute increase from awakening.

Since existing literature does not specifically indicate if a larger or smaller increase from awakening is healthy, specific conclusions cannot necessarily be drawn from this finding. However, Hellhamer and Hellhamer (2008) argue that individuals may be classified into a variety of conditions indicative of dysregulation of the HPA-axis. The two higher-order classifications are hypercortisolemic disorders and hypocortisolemic disorders. In the former, individuals with "considerable chronic stress exposure at any stage later in life" (p. 39) may experience extreme rises in their baseline-to-highest cortisol concentrations during the morning hours. Hellhamer and Hellhamer also argue that those individuals experiencing chronic stress, and who are hypercortisolemic, may eventually become hypocortisolemic. This can be due to "downregulation of respective hormone receptor numbers or increased feedback sensitive of the HPAA or morphological changes" (p. 62). Said differently, the over-activation of the body's stress response may result in a wearing down of the system. In these cases, individuals may be progressing to end-stage chronic conditions, such as allostatic load (McEwen, 2000). In extreme cases, allostatic load has been associated with diagnosable psychological (e.g., depression and PTSD) as well as physiological pathology (e.g., cardiovascular disease, extreme obesity).

While it is difficult to assume from these data allostatic load exists among these participants, the fact that some participants had high ABS_{INC} responsiveness and others had low ABS_{INC} responsiveness is potentially indicative of future stress-related illness. Indeed, those individuals who reported a moderate amount of perceived stress had a reduction in their ABS_{INC} when they also reported a larger supportive network. Overall, those individuals who reported the highest amount of stress and the lowest amount of social support also had the largest increase in their absolute cortisol rise from awakening. Importantly, this finding does provide evidence that received (or actual) social support can moderate the relationship in a way similar to perceived social support. Collectively, this finding is encouraging because it indicates

there are specific mechanisms in which social support can facilitate a return to a healthier physiological stress response.

Theoretic Implications

Cortisol Awakening Response. Among the most challenging aspects of research utilizing the cortisol awakening response, is attempting to conceptualize and operationalize the phenomenon. Researchers have failed to determine what constitutes a normal rise from awakening or even a standardized protocol to analyze the effects of such a rise. In the present investigation, two measurements of the CAR were utilized (Fekedulegn et al., 2007; Pruessner et al., 2003) which yielded differential (albeit, nonsignificant) findings. Furthermore, the research question evaluated the stress-buffering hypothesis and a significant effect was detected with the use of ABS_{INC} as the criterion variable. Another important characteristic of the CAR is the stability of the rise after awakening and the fall after the peak concentration. Researchers have only recently begun to explore this dynamic of the CAR. For instance, the overall HPA axis has been found to be responsive to psychological stress, but few studies have explored how the CAR can function as a marker of HPA axis activity among those individuals who are reporting chronic psychological stress. Mixed findings have been found in relation to the CAR among a number of different variables. For instance, Fries et al. (2009) found that extant research has reported "a decreased CAR in individuals with high perceived stress" (p. 71) or "no effect of self-reported job stress or workload on the CAR" (p. 71). Perhaps these inconsistencies relate to the nature of the stressful event, which may not have been explored with adequate detail, as the type of stress may predict how the body will respond.

While researchers typically have looked for an easy to measure and understand marker of the HPA axis (Kudielka & Wüst, 2008), the CAR is only a small portion of the overall stress response in the body. As Hellhamer and Hellhamer (2008) point out, "psychobiological processes in humans are tremendously complex, actually still too complex to be described satisfactorily" (p. 21). Therefore, it becomes problematic for researchers to evaluate the body's stress response through a single lens, which may have been the case in the present investigation and countless other investigations utilizing CAR. The

complexities of the overall stress response system in the body involve a variety of brain systems, all of which regulate a different aspect of the response.

Social Support. As an inherently communicative process, received social support was the primary phenomenon of interest in the present investigation. Specifically, the study sought to determine how an enacted social support intervention could influence participants' psychological appraisals of stress as well as the body's response to stress. Given that, the intervention attempted to provide individuals with the tools necessary to elicit and provide socially-supportive messages. According to the enacted support model (Goldsmith, 2004), increases in supportive transactions should have improved both psychological and physiological responses to stress (Anthony & O'Brien, 2002; L. H. Cohen, 1984; S. Cohen & Wills, 1985; House, 1981). Furthermore, social support should have acted as a greater stress buffer to those individuals who had been trained during the intervention on how to properly provide supportive messages and rely on their existing support network for means of support.

The test of the research question did indicate that received (enacted) social support acted as a stress-buffer during the pretest phase of the study. Therefore, while existing literature has supported the stress-buffering effects of perceived support, the present investigation supports the notion that enacted support can also function as a means to improve health, especially for psychologically distressed individuals. Therefore, the communicative elements of received support may be as powerful as the perception of a support network.

One of the more complex inconsistencies among social support research is the claim that perceived social support reduces stress while received or actual support increases stress. This relationship can be due to insufficiently measuring the type of support (Barrera Jr., 1986). However, inconsistent findings related to received social support may be due to the fact that individuals seek out a supportive transaction only when they are under distress (Seidman et al., 2006). For all other times, including times where participants are dealing with chronic stressors, the appraisal of a large supportive network may be good enough. In the present investigation, participants' reports of actual support were negatively correlated with perceived stress, indicating that received support may have also acted as a mechanism to

reduce stress. Furthermore, those reports of actual support also moderated the relationship between perceived stress and absolute increase in cortisol from awakening.

Conclusions

First, researchers wishing to explore the effectiveness of interventions would be well advised to consider the time between manipulation and measurement to account for any delayed effects of the treatment. This may be especially true for enacted social support. Future researchers could explore this through multiple measurement periods to determine when the effect potentially occurs and when returns on the intervention may diminish over time. This would be an important addition to the literature, as few studies have examined the non-linear nature of social support intervention effectiveness and would be useful in designing the most-effective program for an organization.

Among social scientists, there is a desire to explore physiological aspects of social phenomena. However, selecting one discrete part of the body's stress response to examine often yields inconsistent results. Therefore, pinpointing the specific sub-system of the stress response, depending on the type of stressor under evaluation, would be a vital step to future successful research connecting physiology to psychology. Overall, research on the HPA axis, from a social scientific perspective is an emerging area of research because of its practical utility; however, at the same time, many complexities impede the exploration of proper intervention techniques and specific relationships between variables.

Finally, future researchers may wish to explore a distressed population or evaluate a specific organization in crisis. This line of research could be especially fruitful when considering that intervention research can suffer from a threshold effect (i.e., the effects of the outcome not being visible without a higher level of the independent variable, stress), as was most likely the case with the present investigation.

This investigation attempted to explore the impact of an enacted social support intervention on psychological and physiological responses to stress and worklife conflict. Despite many of the nonsignificant results, the general stress-buffering benefits of enacted social support were detected among these participants, acting to moderate the relationship between psychological stress and cortisol increase

from awakening. This study critically explored the usefulness and applicability of the cortisol awakening response for social scientific researchers as well as the theoretic implications for enacted social support within this context.

Practically speaking, organizations may be well-served to institute similar interventions as a means to improve workers' health as well as organizational outcomes. However, researchers must exercise caution in evaluating this study's specific intervention as a useful means to improve worker health, as many limitations to the study were found. While this study did provide some answers in relation to the way that social support functions in the workplace, additional experimentation is necessary in order to evaluate its effectiveness. This study does add to the literature a useful look at the complexities of intervention-based research in a workplace context.

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Footnotes

[1]Since many physical conditions are potential confounds for cortisol assay (Hellhammer et al., 2007; Kudielka et al., 2007; Nicolson, 2008; Wüst et al., 2000), participants were screened to ensure they did not: (a) indicate hyper- or hypo-tension; (b) report having chemotherapy or chest radiation; (c) report history of hepatitis, endocrine disease, kidney or liver disease, cancer, cardiovascular disease, rheumatological disorders, respiratory problems, or diabetes; and (d) report current use of alpha-blockers, beta-blockers, or steroids. In addition, all female participants were not (a) currently pregnant; and (b) or currently breastfeeding.

[2] Group equivalence was determined with independent samples *t*-tests on the pretest physiological assessments; cortisol absolute increase from awakening [t (45) = .837, p = .41], area under the curve with respect to ground [t (45) = .964, p = .34], and area under the curve with respect to increase [t (45) = 1.39, p = .172].

[3] Calculation for Area Under the Curve with Respect to Increase utilized the following equations with *m* denoting the averaged daily cortisol concentration measurements, and *t* indicating the time distance between measurements:

Equation 1: *Area under the curve with respect to ground*

$$AUC_G = \sum_{i=1}^{n-1} \frac{\left(m_{(i+1)} + m_i\right) \times t_i}{2}$$

Equation 2: *Area under the curve with respect to increase*

$$AUC_I = AUC_G - m_i \times \sum_{i=1}^{n-1} t_i$$

[4] For Absolute Increase from Awakening, the following equation was utilized:

Equation 3: *Absolute cortisol percent increase*

$$ABS_{INC} = \frac{(AC_{high} - AC_0)}{AC_0} \times 100$$

Table 1

Correlations Among Pretest Variables

	2	3	4	5	6	7
1. Social Support Avg.	.386**	-.383**	-.426**	-.314*	-.185	-.079
2. Social Support Satisfaction	--	-.444**	-.141	-.275*	-.040	.156
3. Perceived Stress Scale		--	.571**	.588**	.381**	-.093
4. Work Interface with Family			--	.529**	.065	-.211
5. Family Interface with Work				--	.365**	-.116
6. Cortisol ABS_{INC}					--	.574**
7. Cortisol AUC_I						--

Notes: ** = Correlation significant at the $p < .01$ level; * = Correlation significant at the $p < .05$ level. All correlations significance values reported as 1-tailed. ABS_{INC} = Absolute increase from cortisol awakening, AUC_I = Area under the curve with respect to increase.

Table 2

Summary Descriptives for Hypothesis 1

					95% Confidence Interval	
D.V.	Group	Time	Mean	*SE*	Lower	Upper
AUC_I	Control	Pre	9.50	2.07	5.32	13.68
		Post	7.71	1.99	3.69	11.74
	Treatment	Pre	4.51	2.02	.42	8.60
		Post	3.26	1.95	-.68	7.19
ABS_{INC}	Control	Pre	86.01	20.30	45.02	126.99
		Post	86.56	15.73	54.80	118.32
	Treatment	Pre	64.27	19.83	24.22	104.31
		Post	50.72	15.37	19.69	81.75

Notes: ABS_{INC} = Absolute increase from cortisol awakening, AUC_I = Area under the curve with respect to increase.

Table 3

Hierarchical Regression Analysis Predicting Absolute Cortisol Increase

Model Variables	Model R^2	*B (SE B)*	β	sr^2
Step 1	.146*			
Intercept		71.63 (13.06)		
Social Support		-1.04 (8.41)	-.019	.000
Perceived Stress		47.30 (19.54)	.374*	.12
Step 2	.270**			
Intercept		62.55 (12.70)		
Social Support		-3.90 (7.94)	-.072	.004
Perceived Stress		45.68 (18.29)	.361*	.11
SS x PSS		-19.83 (7.50)	-.356	.12

Notes: * $p < .05$, **$p < .01$ level. SS x PSS = Interaction Term.

Criterion variable = Absolute Cortisol Increase from Awakening.

Table 4

Descriptive Statistics for Study Variables

	Pretest Measures		Posttest Measures	
	Mean (*SE*)	*SD*	Mean (*SE*)	*SD*
Cortisol AUC_{INC}	6.45 (1.42)	9.76	5.51 (1.33)	8.99
Cortisol ABS_{INC}	71.83 (13.41)	91.92	71.06 (10.68)	72.44
Perceived Stress Scale	2.86 (.11)	.73	2.81 (.10)	.70
Work Interface with Family	3.14 (.15)	1.02	3.00 (.14)	.70
Family Interface with Work	2.03 (.12)	.78	2.16 (.09)	.60

Note: AUC_{INC} = Area Under the Curve with Respect to Increase, ABS_{INC} = Absolute Increase from Awakening as a Percentage.

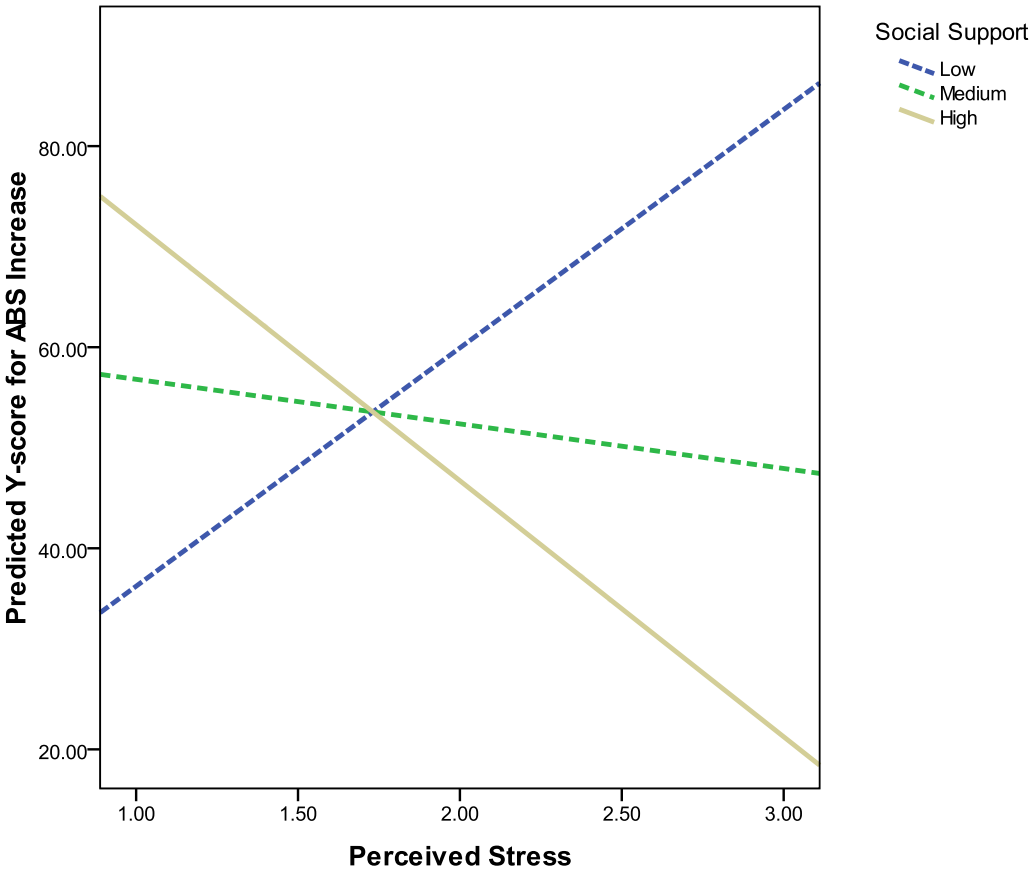

Figure 1: Simple Slope Regression Lines for Interaction Effect

Appendix

Social Support Training Session Content Outline

Training Session One (90 Minutes)

1. Introductions and Confidentiality Statement.
2. Discussion of Worklife Conflict.
3. Presentation of Enacted Social Support Model.
4. Discuss difficulties in the workplace and at home.
5. Group as a means of social support – group discussion.
6. Members provide informational support and problem solving.
7. Identification of existing social support.
8. Discussion of journaling activity for the week.
9. Wrap-up and Questions.

Training Session Two (90 Minutes)

1. Introduction and review of journals
2. Discuss new challenges in the workplace
3. Identification of existing means of social support
4. Review of success at soliciting social support
5. Advice on how to give and solicit better support.
6. Encouragement for future social support.
7. Reminders of journaling assignment.
8. Discussion of final saliva sample collection and debrief meetings.
9. Wrap-up, Questions, and Closing Comments.