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Stress, Social Support, and Burnout Among Long-Term Care Nursing Staff

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### Abstract

Long-term care nursing staff are subject to considerable occupational stress and report high levels of burnout, yet little is known about how stress and social support are associated with burnout in this population. The present study utilized the job demands-resources model of burnout to examine relations between job demands (occupational and personal stress), job resources (sources and functions of social support) and burnout in a sample of nursing staff at a nursing home (n=250). Hierarchical linear regression analyses revealed that job demands (greater occupational stress) were associated with more emotional exhaustion, more depersonalization, and less personal accomplishment. Job resources (support from supervisors and friends or family members, reassurance of worth, opportunity for nurturing) were associated with less emotional exhaustion and higher levels of personal accomplishment. Interventions to reduce burnout that include a focus on stress and social support outside of work may be particularly beneficial for long-term care staff.

Keywords: family-to-work spillover effects, long-term care, social provisions, occupational stress

### Stress, Social Support, and Burnout Among Long-Term Care Nursing Staff

Staff burnout represents a danger to the mental and physical health of human-service workers (Borritz, et al., 2010; Kim, Ji, & Kao, 2011). In addition, burnout often diminishes the quality and efficiency of care provided by human-service workers and thus represents a danger to service recipients as well as a cost to employers (Ben Natan, Lowenstein, & Eisikovits, 2010; Poghosyan, Clarke, Finlayson, & Aiken, 2010). Prior studies with human service workers suggest that burnout is associated with higher levels of subjective occupational stress and lower levels of social support (Barnard, Street, & Love, 2006; Jenkins & Elliott, 2004; Nissly, Mor Barak, & Levin, 2005). There is limited research, however, on how stress and social support are associated with burnout among direct care and supervisory nursing staff at long-term care facilities, despite the high levels of burnout in this population (Rai, 2010). The current study examined the relation between occupational and personal stress, social support sources and functions both on- and off-the-job, and burnout in a sample of long-term care nursing staff.

### **Burnout**

Burnout is characterized by a prolonged response to chronic emotional and interpersonal stressors on the job (Maslach, Schaufeli, & Leiter, 2001), and is typically defined and measured according to three dimensions: emotional exhaustion, feelings of cynicism and detachment from the job (depersonalization), and a sense of ineffectiveness and lack of accomplishment (low personal accomplishment; Maslach, 2003; Weber & Jaekel-Reinhard, 2000). Burnout, as it applies to human service workers, is experienced by individuals whose occupations require intense interactions with persons for whom they are responsible in some way (e.g., their patients, clients, or students; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012; Schaufeli & Van Dierendonck, 1993).

Factors that contribute to burnout among human-service workers have been conceptualized according to several theoretical models, including the job demands-resources model of burnout (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Bakker, 2004), the effort-reward imbalance model (Bakker, Killmer, Siegrist, & Schaufeli, 2000; van Vegchel, de Jonge, Bosma, & Schaufeli, 2005), and a model specific to long-term care workers (Cohen-Mansfield, 1995). In the current study, burnout is conceptualized according to the job demands-resources model. This model has been applied to nurses, though not specifically to nursing staff in long-term care facilities (Hansen, Sverke, & Näswell, 2009; Jourdain & Chênevert, 2010). These studies (Hansen et al., 2009; Jourdain & Chênevert, 2010) found that job demands were associated with lower levels of emotional exhaustion and depersonalization, and higher levels of personal accomplishment. Job resources were not significantly associated with burnout, suggesting that, for direct care staff in some health care settings, burnout levels may be more directly impacted by workplace demands.

### **Occupation and Personal Stress and Burnout**

In the current study we conceptualized occupational and personal stressors as job demands, according to the job-demands resources model of burnout (Demerouti et al., 2001). Nursing staff at long-term care facilities face several specific occupational stressors not experienced by acute care nursing staff that influence their job satisfaction and may lead to increased rates of burnout (Stone & Harahan, 2010). One such stressor is the high number of residents with dementia who may direct physical and verbal abuse toward staff or other residents. These residents also often require frequent transfers between beds, chairs, and wheelchairs considerable, further adding to the strain on direct care staff (Pitfield, Shahriyarmolki, & Livingston, 2011). Additional stressors include exposure to the declining

health and death of many of their service recipients, care of individuals who are incontinent of urine or feces, care to individuals needing different levels of assistance, and integrating residents with dementia with other nursing home residents (Hasson & Arnetz, 2008; Morgan, Semchuk, Stewart, & D'Arcy, 2002; Pekkarinen, Sinervo, Perälä, & Elovainio, 2004).

The current literature on spillover effects between personal and occupational stress (family-to-work spillover effects) suggests that personal stress may lead to higher levels of emotional exhaustion, though this research has not focused on nursing staff at long-term care facilities (Pfaff, Kowalski, & Ansmann, 2013). The research that has been conducted on long-term care staff suggests that personal stress may contribute to higher depressive symptoms, though burnout has not been examined as an outcome (O'Donnell, Ertel, & Berkman, 2011).

The task of decreasing burnout among long-term care nursing staff requires identification of employee variables that have the potential to decrease or prevent burnout-related stressors. In light of research that is discussed below, social support is a strong candidate for this task.

### **Social Support and Burnout**

The social climate of a workplace is linked to occupational stress and burnout (Kinman, Wray, & Strange, 2011; Kowalski et al., 2010). Social support can decrease burnout and occupational stress (Jenkins & Elliott, 2004), though little is known about the types of social support that are available to long-term care nursing staff, and whether different types of support are related to burnout. In the current study, social support sources and functions were conceptualized as job resources, according to the job-demands resources model of burnout (Demerouti et al., 2001). We included both source of support and function of support in the current study in light of prior research suggesting that types of support (i.e., function of support)

and type of supporters (i.e., source of support) are two conceptually distinct constructs (Thoits, 2011).

There is some evidence that work-related support, particularly support from supervisors, may be particularly important in decreasing stress among long-term care nursing staff (Liang, Hsieh, Lin, & Chen, 2013; McGilton, McGillis, Wodchis, & Petroz, 2007), though previous research has not examined burnout directly. To our knowledge, there is no published work about non-work sources of support (friends, family members) among long-term care nursing staff, and their associations with burnout.

A variety of distinctions have been made between various types of social support and the functions they serve (Uchino, 2004). For example, social support may provide informational, emotional, or instrumental functions (Thoits, 2011). To our knowledge, existing studies of burnout among nursing staff in long-term care settings have not considered functions of support when examining the impact of job resources on burnout. Provision of certain types of social support within work and non-work relationships, such as instrumental support and reassurance of worth, may have a positive outcome on health and wellbeing, such as helping individuals cope with occupational stress and burnout (Akroyd, Caison, & Adams, 2002; Scheurer, Choudhry, Swanton, Matlin, & Shrank, 2012; Stevens et al., 2013; Varvel et al., 2007).

### **Overview of the Present Study**

The goals of the present study were to utilize the job resources-demands model of burnout to (1) determine the amount of job demands (occupational stress, personal stress) and job resources (sources of social support, functions of social support) in a sample of nursing staff in a long-term care setting, (2) examine zero-order correlations of demographic variables (age, sex, education), job demands, and job resources with the three dimensions of burnout (emotional

exhaustion, depersonalization, and personal accomplishment), and (3) examine the amount of variance accounted for by each of the job demands and job resources in predicting burnout, controlling for demographic variables significantly associated with burnout. Based on prior research on the job demands-resources model (Demerouti et al., 2001; Schaufeli & Bakker, 2004), we hypothesized that high levels of job demands and low levels of job resources would predict high levels of emotional exhaustion, high levels of depersonalization, and low levels of personal accomplishment. We also hypothesized that higher levels of supervisor support would predict high levels of emotional exhaustion, high levels of depersonalization, and low levels of personal accomplishment (Liang et al., 2013; McGilton et al., 2007).

## **Method**

### **Participants**

Participants were 216 female and 34 male nursing staff who ranged in age from 17 to 63 years. The majority of participants were direct care staff (certified nursing assistants or licensed practical nurses), though registered nurses (supervisory nursing staff) were also included in the sample. Each participant worked in one of ten nursing homes in West Virginia. All of the facilities had residents with different types of dementia diagnoses, though the facilities did not exclusively serve residents with dementia. Participants were mostly white, and had earned a high school degree or completed some college. Most of the sample worked the first shift from 7am to 3pm and were relatively experienced in nursing home work. Additional background information about the participants is presented in Table 1. The study was approved by the Institutional Review Board at San José State University.

### **Measures**



**Demographic questionnaire.** Participants completed background information on their age, gender, marital status, position in the nursing home, primary work-shift, highest degree earned, years of nursing home experience, and duration of employment at the present nursing home.

**Nursing Home Stress Inventory (NHSI).** The NHSI was developed by the third author to assess occupational stress experienced by nursing staff in the long-term care environment. It contains 46 items (e.g., argued with a resident, worked overtime) that were generated in consultation with eleven personnel from three nursing homes representing five disciplines (nursing, administration, psychology, social work, and activity therapy). The NHSI is completed at the end of a shift. Participants are asked to indicate which events occurred during the prior shift and the stressfulness of those events on a 7-point rating scale (1=occurred but was not stressful to 7=caused me to panic). The total score for the NHSI is a ratio obtained by dividing the total impact score by the total number of events during the shift ( $\alpha = 0.98$ ; Table 2). Preliminary support for the convergent validity of the NHSI measure was established via examination of correlations with the Daily Stress Inventory ( $r = 0.59, p < 0.001$ ), a one-item measure of self-reported stress in the past month (1 = no stress to 10 = extreme stress;  $r = 0.41, p < 0.001$ ), and a one-item measure of self-reported job satisfaction (1 = very satisfied to 10 = very unsatisfied;  $r = 0.36, p < 0.001$ ).

**Daily Stress Inventory (DSI).** The DSI (Brantley & Jones, 1989) was used to measure personal stress. Participants indicate which of 58 potentially stressful events they experienced in the past 24 hours (e.g., difficulty in traffic, car trouble), and the stressfulness of those events on a 7-point rating scale (1=occurred but was not stressful to 7=caused me to panic). Items assess five areas of stress: interpersonal problems, personal competency, cognitive stressors, environmental

hassles, and varied stressors. The total DSI score is a ratio obtained by dividing the total impact score by the number of stressful events endorsed in the past 24 hours ( $\alpha = 0.87$ ; Table 2).

Validity studies of the DSI indicate that it is correlated with global stress measures (Brantley & Jones, 1989), endocrine measures of stress (Brantley, Deitz, McKnight, Jones, & Tulley, 1988), and measures of daily hassles (Kanner, Coyne, Schaefer, & Lazarus, 1981).

**Sources of Support (SOS).** The SOS is a 48-item measure designed by the third author to assess perceived social support from four different sources (supervisors, coworkers, spouse/significant other, friends/family members). The SOS contains 12 items from the Social Support Scale (House, 1981). Additional items were added for the current study to assess social support targeted at decreasing occupational stress, improving job performance, and increasing coping with occupational stress or burnout. Participants were asked whether they received certain types of support (e.g., willingness to listen to work-related problems, concern about the participant's welfare) from each of the four target sources of support. Responses were on a 5-point rating scale (1=not at all true to 5=always true; supervisor  $\alpha=0.97$ ; coworker  $\alpha=0.94$ ; spouse/significant  $\alpha=0.97$ ; family/friend  $\alpha=0.96$ ; Table 2). The SOS scores for each subscale are derived by adding responses to each of the items (12 items per subscale; Table 2). Total score on the SOS was significantly correlated in the expected directions with total score on the Social Provisions Scale ( $r = 0.70$ ;  $p < 0.001$ ), total NHSI score ( $r = -0.45$ ,  $p < 0.001$ ) and total DSI score ( $r = -0.39$ ,  $p < 0.001$ ).

**Social Provisions Scale (SPS; Functions of Support).** The 24-item SPS (Cutrona & Russell, 1987) was designed to assess the extent to which a person's current social relationships serve specific social functions. Participants are asked to think of current relationships with friends, spouses, family members and other individuals in their lives and rate 24 statements on a

4-point rating scale (1 = strongly disagree to 4 = strongly agree). The total SPS scores for each subscale are derived by adding responses to each of the items (four items per subscale; Table 2). The six relationship functions assessed by the SPS include: (1) guidance, involving trustworthy and authoritative individuals who can provide advice (“There is someone I could talk to about important decisions in my life”), (2) reassurance of worth, involving acknowledgement of skills and abilities (“I have relationships where my competence and skill are recognized”), (3) social integration, which involves a network of social relationships in which individuals share interests and concerns (“There are people who enjoy the same social activities I do”), (4) attachment, which involves receiving a sense of security and safety from the relationship (“I feel a strong emotional bond with at least one other person”), (5) reliable alliance, derived from relationships in which the person can count on others for assistance under any circumstances (“There are people I can depend on to help me if I really need it”), and (6) opportunity for nurturing, derived from relationships in which the person is responsible for the well-being of another (“There are people who depend on me for help”).

**Maslach Burnout Inventory (MBI).** The MBI (Maslach & Jackson, 1986) is a 22-item self-report instrument designed to assess several dimensions of burnout. Participants are asked to report how often the statements apply to them (1=never to 7=every day). Subscales of the MBI include emotional exhaustion (extent to which one feels overextended and exhausted by one’s work; 9 items;  $M=37.4$ ,  $SD=13.9$ , Range 9 – 63,  $\alpha=0.90$ ), depersonalization (negative attitudes and behaviors toward care recipients; 5 items;  $M=12.0$ ,  $SD=6.1$ , Range 5 – 29,  $\alpha=0.79$ ), and personal accomplishment (feelings of competence and achievement at work; 8 items;  $M=44.5$ ,  $SD=8.2$ , Range 19 – 56,  $\alpha=0.71$ ). The MBI is correlated with other measures

of burnout (Pines & Aronson, 1988) and with measures of somatic complaints and psychological strain (anxiety, depression, and irritation; Schaufeli & Van Dierendonck, 1993).

### **Procedure**

Administrators of nursing homes were contacted by phone to obtain permission for recruiting nursing staff. All nursing homes that were approached agreed to participate. All eligible staff members at each facility were invited to participate. Participation was voluntary; informed consent was obtained from all participants. Questionnaires were administered at the nursing home during shift changes and break periods. Participants completed the demographic questionnaire, NHSI (occupational stress), DSI (personal stress), SOS (sources of support), SPS (functions of support), and MBI (burnout inventory). Questionnaires were administered by research assistants who had prior experience working in geriatric settings. Participants were compensated for participation with small merchandise and gift certificates donated by local merchants.

### **Analysis Plan**

Independent samples t-tests were used to examine differences in occupational versus personal stress, the sources of social support, and the functions of social support. We then examined zero-order correlations between age, sex, education, position (supervisor or staff), occupational stress, personal stress, the four subscales of the SOS, and the six subscales from the SPS with the three burnout dimensions from the MBI (emotional exhaustion, depersonalization, and personal accomplishment). Hierarchical linear regression analyses were used to examine the direct effects of job demands and resources on outcomes. Intercorrelations of the independent variables were examined prior to running the regression analyses to check for multicollinearity. One regression analysis was run for each outcome variable (emotional exhaustion,

depersonalization, and personal accomplishment). Block 1 controlled for participant characteristics significantly associated with burnout. Block 2 included the job demand variables of total scores (impact-event ratios) from the NHSI (occupational stress) and the DSI (personal stress), respectively. Block 3 included the job resource variables of support from supervisors, co-workers, spouse/significant others, and friends/family members, as measured by the SOS. Block 4 included the six functions of support as measured by the SPS (guidance, reassurance of worth, social integration, attachment, reliable alliance, and opportunity for nurturing).

## **Results**

### **Amount of Job Demands and Job Resources**

Participants reported significantly higher levels of personal stress than occupational stress,  $t(490) = 3.69, p = 0.0002$  (Table 2). No significant differences were observed between sources of support (supervisor, coworker, spouse/significant other, friend/family member). Participants reported obtaining more guidance from social relationships than reassurance of worth ( $t(492) = 4.32, p < 0.001$ ), attachment ( $t(492) = 2.26, p = 0.024$ ), and opportunity for nurturing ( $t(492) = 2.96, p = 0.003$ ). Reassurance of worth was obtained less frequently than social integration ( $t(492) = 4.26, p < 0.001$ ), reliable alliance ( $t(492) = 6.85, p < 0.001$ ), and opportunity for nurturing ( $t(492) = 8.47, p < 0.001$ ). Social integration was obtained less frequently than reliable alliance ( $t(492) = 2.75, p = 0.006$ ) and opportunity for nurturing ( $t(492) = 4.29, p < 0.001$ ). Finally, attachment was also obtained less frequently than reliable alliance ( $t(492) = 4.19, p < 0.001$ ) and opportunity for nurturing ( $t(492) = 5.50, p < 0.001$ ).

### **Zero-Order Correlations Between Demographic Variables, Job Demands, Job Resources, and Burnout**

Table 3 presents zero-order correlations of sex, age, education, position, occupational stress, personal stress, and sources and functions of support with the three components of burnout. Older age was associated with less emotional exhaustion and depersonalization. Higher occupational and personal stress ratings were associated with more emotional exhaustion and depersonalization, and less endorsement of personal accomplishment. Individuals who reported more support from all four sources endorsed less emotional exhaustion, less depersonalization, and more personal accomplishment. All of the six functions of support were significantly associated with less emotional exhaustion, less depersonalization, and more personal accomplishment. Based on these correlations, age was included in Block 1 of the regression analyses since it was correlated with two of the burnout outcome variables (emotional exhaustion and depersonalization). Sex and education were not included in the regression analyses.

### **Regression Analyses Predicting Burnout**

The average correlation between predictors of burnout was 0.38 (Table 4). Sources of support, as assessed by the SOS, and functions of support, as assessed by the SPS, were moderately correlated. Despite the moderate correlation, these variables were retained for the regression analyses (Table 5) due to the conceptual distinction between type of support and source of support (Thoits, 2011). Block 2 (occupational and personal stress) accounted for 26% of the variance in emotional exhaustion ( $F(5, 221) = 16.90, p < 0.001$ ), 17% of the variance in depersonalization ( $F(5, 221) = 10.08, p < 0.001$ ), and 7% of the variance in personal accomplishment ( $F(5, 221) = 4.16, p = 0.001$ ). When examining significance of the individual predictors, occupational stress (but not personal stress) was a significant predictor of all dimensions of burnout. Block 3 (sources of support) accounted for significant amounts of variance across the three dimensions of burnout (9% to 41%; Table 5). When examining

individual predictors, more emotional exhaustion was predicted by less support from supervisors and friends/family members ( $F(9, 217) = 18.26, p < 0.001$ ). Block 4 (functions of support) accounted for 15 to 34% of the variance in the dimensions of burnout. More emotional exhaustion was predicted by obtaining less reassurance of worth from relationships ( $F(11, 215) = 11.44, p < 0.001$ ); more personal accomplishment was predicted by obtaining more reassurance of worth from social interactions and more opportunity for nurturing ( $F(11, 215) = 4.62, p < 0.001$ ).

### **Discussion**

The goals of the current study were to examine levels of personal and occupational stress among long-term care nursing staff, and determine the extent to which job demands and job resources were associated with scores on the Maslach Burnout Inventory (MBI). Unique features of the present study include consideration of the contributions of personal stress, examination of four different sources of social support, and examination of the functions of social support and their relation to scores on the MBI. Personal stress, sources and functions of social support and their relation to burnout have not been examined together in prior studies of long-term care nursing staff. Source of support (supervisor, family and friends) and function of support (reassurance of worth, opportunity for nurturing) were significant contributors to MBI scores and therefore potential targets for preventive and intervention efforts. We also found a relatively high level of personal stress, which was significantly higher than reported occupational stress. This finding may suggest the need for more holistic approaches to stress reduction that potentially incorporate the entire waking day and seven-day week.

### **Job Demands and Burnout**

We assessed personal stress in the current study, which has not previously been examined in the literature on burnout among long-term care staff. Although not predictive of burnout scores on the MBI, levels of personal stress in our sample were significantly higher than occupational stress. Personal sources of stress, such as difficulties within one's family, may make it difficult to focus on work and find meaning in working with patients, potentially leading to greater risk of occupational burnout (Cohen-Mansfield, 1995). To this end, nursing home administrators may find it advantageous to incorporate in-service training that teaches strategies for stress reduction that incorporate potential sources of stress encountered by staff throughout their waking hours. This may help to minimize the spillover of stress from multiple sources and thereby prevent or manage its impact on occupational burnout.

Our finding that occupational stress predicted all three dimensions of burnout on the MBI is consistent with the findings of prior studies on the job resources-demands model with nurses working in acute care hospitals (Jourdain & Chênevert, 2010; Hansen et al., 2009); specifically, job demands may have a greater impact on increasing burnout than job resources do on lowering burnout. Our study extends these findings to nursing staff in long-term care settings, a sample to which the job resources-demands model has not yet been applied. Although there have been successful programs aimed at reducing turnover and increasing job satisfaction among nursing home staff (Castle & Bost, 2009; Dill, Craft Morgan, & Konrad, 2010), there are limited data on tailored stress management programs for nursing staff in long-term care settings. The specific occupational demands required of long-term care staff, such as caring for residents with dementia, may need to be addressed in a stress management program tailored to the nursing home setting (e.g., VonDras, Flittner, Malcore, & Pouliot, 2009). This may include strategies for managing the physical and often repetitive verbal abuse that is often directed towards staff who



are providing direct care to individuals with dementia, which can take a significant emotional toll.

### **Job Resources and Burnout**

Existing research on job resources has not examined separate sources of social support in the same study, or has focused exclusively on supervisor support (McGilton et al., 2007; Schaufeli & Buunk, 2003). The current study assessed four sources of social support. Based on existing research focused on job satisfaction (e.g., McGilton et al., 2007), we hypothesized that supervisor support would predict MBI scores in our sample. We found that participants obtained equal amounts of support from the four sources assessed in the study (supervisor, coworker, spouse/significant other, friend/family member). More support from supervisors and friends or family members predicted lower levels of emotional exhaustion as measured by the MBI. Prior research on the effects of supervisor support in non-nursing home settings suggests that increasing supervisor support may lead to higher employee retention and less absenteeism (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; van Dierendonck, Schaufeli, & Buunk, 1998). The finding regarding the importance of support from friends/family members is unique in the literature on burnout among long-term care nursing staff, and again underscores the need to look beyond the walls of the long-term care facility for contributions to stress, burnout, and their reduction or prevention.

To our knowledge, our study is the first to examine the role of social support functions in burnout among long-term care nursing staff. Of the six functions of social support assessed in the study, participants most frequently endorsed the functions of guidance, reliable alliance, and opportunity for nurturing. Greater reassurance of worth predicted less emotional exhaustion and a greater sense of personal accomplishment, whereas social relationships that provided greater

opportunity for nurturing predicted a greater sense of personal accomplishment. This result supports our hypothesis regarding the importance of reassurance of worth, and replicates existing research on other professions suggesting that reassurance of worth is associated with less burnout (Akroyd, Caison, & Adams, 2002; Varvel et al., 2007).

### **Clinical Implications**

Interventions to reduce burnout are typically categorized as person-directed, organization-directed, or a combination of both (Awa, Plaumann, & Walter, 2010; Westermann, Kozak, Harling, & Nienhaus, 2014). Person-directed interventions focus on bolstering individual coping strategies in the face of stress, whereas organization-directed interventions tend to focus on decreasing job demands. Recent reviews suggest that person-directed interventions to reduce burnout are effective in the short-term (6 months or less), whereas interventions that include both person-directed and organization-directed techniques are more effective in the long-term (Awa et al., 2010; Westermann et al., 2014). Our results provide information that would inform the selection of skills and techniques that could be included in person- and organization-directed interventions to reduce burnout. For example, person-directed interventions might include strategies for eliciting social support in and outside of work, while organization-directed interventions might focus on supervisor training to increase support provided to employees. Person-directed interventions could be geared toward teaching employees to provide support to each other, as low social support at work has been associated with nurses' intentions to leave the profession (Zeytinoglu, Denton, & Plenderleith, 2010). In addition, staff members may benefit from learning how to bring new social contacts into their network and/or accept social support from those that are offering, as well as techniques for seeking support outside of work from family and friends. To the extent that friends and family members offer emotional support and active

coping assistance (Thoits, 2011), our findings suggest that learning to elicit support from non-work sources is important in reducing job burnout.

For organization-directed interventions to reduce burnout, supervisors may need additional training and coaching around the creation and maintenance of supportive environments for their staff. Given that reassurance of worth involves acknowledgement of skills and abilities, the training of supervisors to support this function may be particularly helpful in reducing burnout (van der Heijden et al., 2010). Relatively brief supervisor training that instructs and models this skill could contribute to reductions in staff burnout. These additions to burnout programs may improve their ability to reduce burnout in the long term.

Our study results also suggest the importance of regularly assessing levels of burnout and social support in long-term care staff. Long-term care facilities may benefit from policies that incorporate regular assessment of burnout symptoms and social support structures that are in place for staff to cope with burnout.

### **Limitations**

The sample for the present study was largely female, white, and rural, which may limit generalization to more diverse nursing staff at other long-term care facilities, and may limit generalization to urban settings. The NHSI (occupational stress) was created for the purposes of the present study based on input from an expert panel. Specific constructs within the measure were not examined, which is an area for future research. The SOS (sources of support) was created based on an existing measure of social support, with additional items added to answer questions specific to the current study. Preliminary psychometric support for the reliability and validity of these new instruments was examined and was acceptable.

### **Conclusions and Future Directions**

Unique contributions of the current study are the findings that support from friends and family, and social relationships that provided reassurance of worth and opportunity for nurturing, both in and outside of the work environment, reduced scores on the emotional exhaustion subscale of the MBI and increased scores on the personal accomplishment subscale. These findings point the way to burnout reduction interventions that focus more strongly, or even exclusively, on eliciting and maintaining social support across settings. Future directions include replication of the study in nursing homes with more diverse staff and in urban settings, examination of moderators of the stress-burnout relation, further validation of the measures created for the purposes of the study, comparison of facility factors that may influence burnout, and development of brief interventions that would bolster social resources available to long-term care staff and supervisors (e.g., Leiter, Laschinger, Day, & Oore, 2011; van Dierendonck, Schaufeli, & Buunk, 1998).

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Table 1

*Participant Characteristics*

Variable	Mean (SD; Range) or %
Age	37.0 (10.6; 17-63)
Female	86.4%
Marital Status	19.6% Single
	56.4% Married
	22.8% Divorced
	1.2% Widowed
Race	83.5% White
	8.4% African America
	5.6% Asian American
	2.5% Native American
Education	3.2% Grade School
	15.2% Some High School
	33.6% High School/Technical School Degree
	34.0% Some College
	7.6% College Degree
	3.2% Graduate Degree
Position	78.8% Staff
	21.2% Supervisor
Shift	66.3% First (7am – 3pm)
	22.1% Second (3pm – 11pm)

	7.2% Third (11pm – 7am)
	4.4% Float (8 hour shift)
Hours Worked Per Week	40.2 (7.3; 16-80)
Years Worked in Nursing Homes	7.5 (6.1; 0.5-45.0)

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Table 2

*Baseline Values of Stress and Social Support*

Variable	Mean (SD)	Range
Occupational Stress (NHSI)	2.80 (1.61)	0 – 6
Personal Stress (DSI)	3.30 (1.38)	0 – 6.11
Sources of Support (SOS)		
Supervisor	38.49 (12.40)	12 – 60
Coworker	37.80 (9.04)	12 – 60
Spouse/Significant Other	39.27 (14.10)	12 – 60
Friend/Family Member	37.65 (11.74)	12 – 60
Functions of Support (SPS)		
Guidance	13.11 (2.83) <sup>a</sup>	4 – 16
Reassurance of Worth	12.11 (2.29) <sup>a, b</sup>	6 – 16
Social Integration	12.96 (2.14) <sup>b, c</sup>	7 – 16
Attachment	12.53 (2.88) <sup>a, d</sup>	4 – 16
Reliable Alliance	13.50 (2.22) <sup>b, c, d</sup>	6 – 16
Opportunity for Nurturing	13.77 (2.06) <sup>a, b, c, d</sup>	7 – 16

*Note.* For functions of support, same superscripts indicate significant differences. Ranges presented are actual rather than possible ranges.

Table 3

*Correlations Between Participant Characteristics, Job Demands, Job Resources, and Burnout Outcomes*

Variable	Emotional Exhaustion	Depersonalization	Personal Accomplishment
<i>Participant Characteristics</i>			
Sex	0.01	-0.12	-0.06
Age	-0.15*	-0.16*	0.05
Education	-0.11	-0.08	0.05
Position (Staff or supervisor)	-0.09	-0.05	-0.15
<i>Job Demands</i>			
Nursing Home Stress Inventory	0.48***	0.39***	-0.27***
Daily Stress Inventory	0.37***	0.31***	-0.25***
<i>Job Resources</i>			
Sources of Support			
Supervisor	-0.58***	-0.40***	0.33***
Coworker	-0.42***	-0.38***	0.25***
Spouse/Significant Other	-0.46***	-0.32***	0.28***
Friend/Family Member	-0.43***	-0.35***	0.29***
Functions of Support			
Guidance	-0.46***	-0.34***	0.42**
Reassurance of Worth	-0.51***	-0.40***	0.38***
Social Integration	-0.36***	-0.27***	0.34***
Attachment	-0.46***	-0.31***	0.40***
Reliable Alliance	-0.19**	-0.26***	0.17**



Opportunity for Nurturing	-0.43***	-0.23***	0.37***
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\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

Table 4

*Intercorrelation of Predictors*

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Age	--	-0.08	-0.12	0.06	0.06	-0.01	-0.02	-0.01	0.05	-0.01	0.01	0.01	-0.07
2. Occupational Stress (NHSI)		--	0.59***	-0.47***	-0.36***	-0.33***	-0.29***	-0.39***	-0.42***	-0.30***	-0.42***	-0.31***	-0.12
3. Personal Stress (DSI)			--	-0.38***	-0.33**	-0.32***	-0.27***	-0.42***	-0.36***	-0.33***	-0.41***	-0.25***	-0.05
<i>Sources of Support</i>													
4. Supervisor				--	0.58***	0.58***	0.50***	0.51***	0.51***	0.39***	0.49***	0.45***	0.22***
5. Coworker					--	0.48***	0.58***	0.51***	0.47***	0.36***	0.44***	0.40***	0.20***
6. Spouse/Partner						--	0.66***	0.58***	0.46***	0.45***	0.62***	0.48***	0.22***
7. Friend/Family							--	0.61***	0.48***	0.44***	0.56***	0.50***	0.25***
<i>Functions of Support</i>													
8. Guidance								--	0.63***	0.63***	0.81***	0.72***	0.29***
9. Reassurance of Worth									--	0.61***	0.64***	0.56***	0.37***
10. Social Integration										--	0.62***	0.58***	0.31***
11. Attachment											--	0.66***	0.25***
12. Reliable Alliance												--	0.33***
13. Opportunity for Nurturing													--

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

Table 5

*Hierarchical Multiple Regression Analyses for Demographics, Job Demands, and Job Resources**Predicting Burnout*

Variable	Emotional Exhaustion		Depersonalization		Personal Accomplishment	
	beta	95% CI	beta	95% CI	beta	95% CI
Block 1						
Age	-0.21**	-0.37 – -0.05	-0.01*	-0.01 – 0.00	0.01	-0.01 – 0.02
Adj. R <sup>2</sup>		0.03		0.02		-0.01
Block 2						
Occupational Stress (NHSI)	3.45***	2.28 – 4.61	0.04***	0.02 – 0.06	-0.13*	-0.24 – -0.02
Personal Stress (DSI)	1.15	-0.22 – 2.52	0.02	0.00 – 0.05	-0.10	-0.23 – 0.03
Adj. R <sup>2</sup>		0.26		0.17		0.07
Block 3						
Supervisor	-0.32***	-0.48 – -0.16	-0.01	-0.01 – 0.00	0.01	-0.01 – 0.03
Coworker	0.03	-0.18 – 0.25	-0.01	-0.01 – 0.00	-0.01	-0.02 – 0.02
Spouse/S.O.	-0.09	-0.24 – 0.06	-0.01	0.00 – 0.00	0.01	-0.01 – 0.02
Friend/Family	-0.19*	-0.36 – -0.02	0.01	-0.01 – 0.00	0.01	-0.01 – 0.03
Adj. R <sup>2</sup>		0.41		0.22		0.09
Block 4						
Guidance	-0.52	-1.53 – 0.48	-0.01	-0.03 – 0.01	0.09	-0.01 – 0.19
Reassurance of Worth	-1.17*	-2.12 – -0.21	-0.01	-0.03 – 0.01	0.12*	0.03 – 0.21
Social Integration	0.32	-0.66 – 1.29	-0.02	-0.02 – 0.01	-0.01	-0.11 – 0.08
Attachment	-0.35	-1.33 – 0.62	0.00	-0.02 – 0.01	-0.01	-0.10 – 0.08
Reliable Alliance	-0.49	-1.53 – 0.54	-0.01	-0.02 – 0.01	-0.10	-0.20 – 0.01
Opportunity for Nurturing	-0.08	-0.88 – 0.71	-0.01	-0.02 – 0.01	0.10*	0.02 – 0.17
Adj. R <sup>2</sup>		0.34		0.22		0.15

\* p &lt; 0.05 \*\* p &lt; 0.01 \*\*\* p &lt; 0.001; beta = unstandardized regression coefficient