EFFECTS OF URBAN/RURAL WORK SETTING AND PROFESSIONAL ROLE ON PERCEPTION OF WORKPLACE STRESS IN HOME HEALTH/HOSPICE AGENCY

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Effects of Urban/Rural Work Setting and Professional Role on Perception of Workplace Stress in Home Health/Hospice Agency

by

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EFFECTS OF URBAN/RURAL WORK SETTING AND PROFESSIONAL ROLE ON PERCEPTION OF WORKPLACE STRESS IN HOME HEALTH/HOSPICE AGENCY

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Abstract

The workplace is an important area of study, can have positive or negative effects, and can satisfy or stress individual needs. This study looked at the effects of work settings and professional roles on perception of organizational stress levels of six rural and one urban office from a hospital-based home health/hospice program in Central Louisiana. The sample of 146 employees ranged in age from 21-66 years.

The instrument was developed by Northwestern National Life, used a likert scale to measure perception of organizational stress levels, and consisted of 46 statements separated into six categories of closely related factors.

This researcher hypothesized that on all scales measuring organizational stress there would be higher stress level measurements in the urban office and professional group than in the rural offices and the para-professional group.

Analysis of variance indicated the urban workplace was perceived to be more stressful, and there were no significant differences in the professional and para-professional groups.
Compared to NWNL's scale, all groups scored low on all scales, with the exception of Work Conditions, where urban and para-professionals scored medium stress, and the rural and professional groups scored low stress. On the Organizational Change Scale, representing stress due to reorganization or expectation of change in ownership or location, all groups scored in the medium range.

Based on the results of this study, there is less stress perceived in the rural settings. The roles of the professional and para-professional personnel were not shown to be significant factors. This organization has only a moderate problem with factors in the workplace that produce or reduce stress, with overall scores in the low category. The organization should, however, use their own rural offices as a model to improve the urban worksite and to pattern additional offices.
Effects of Urban/Rural Work Setting and Professional Role on Perception of Workplace Stress in Home Health/Hospice Agency

Stress is recognized as a growing problem in the American workplace. "Nearly half of American workers say their jobs are very or extremely stressful" (Lawless, 1992). "Job expectations that suddenly change, demands for greater productivity, and fear of job loss during a period of recession are adding to already high stress levels" (Lawless, 1992). According to the Northwestern National Life study, highly stressed workers are experiencing job burnout and increased health problems. "Employees are faced with greater turnover, lower productivity, more frequent absenteeism, and higher health care costs due to workplace stress" (Lawless, 1992). Other research on occupational stress has linked occupational conditions with coronary heart disease, as well as other negative outcomes (Carrière, Evans, Palsane, & Rivas, 1991).

There has been an ever-increasing research orientation into occupational stress. The workplace had repeatedly been shown to contribute to people’s feelings of well-being, or conversely to symptoms and dissatisfaction in their jobs (Firth-Cozens & Hardy,
1992). Given these important variables and their ties to occupational stress, it is important to look at the health care environment and the implications that the health care workplace provides for development of strategies to enhance this unique environment. Geiger and Davit (1988) noted that environmental stresses in some health care settings are so extensive that even individuals' well-developed coping processes are inadequate to deal with them.

Job stress, according to a large body of research, is a consequence of two key ingredients: a high level of job demands and little autonomy, or control over one's work (Arches, 1991; Carrière et al., 1991; Fox, Dwyer, & Ganster, 1993; Lawless, 1992). According to Allen, Hitt, and Greer (1982), one basic school of thought is to view occupational stress as dysfunctional for the organization and its members. This theory indicates that stress can result in decreased job satisfaction and low levels of performance and effectiveness.

Richard Price, a consultant for Northwestern National Life, stated, "Burnout occurs after prolonged periods of high stress. The inability to gain control causes employees to feel an inability to cope with high
demands on the job. Burnout is characterized by feelings of hopelessness, thoughts of leaving, and withdrawing from work. Burned-out workers feel demoralized, and work loses meaning for them" (Lawless, 1992). Northwestern National Life’s research shows that companies with supportive work and family policies, health coverage for mental illness and chemical treatment, effective communication, and flexible work hours have nearly half the burnout rate of employers who do not have such policies (NWNL, 1992).

**Workplace Stress**

**Employee support and training**

Employee support and training are essential to reduce stress levels and foster an environment where employees can work in a non-threatening and comfortable environment. Social support at work has been demonstrated in several studies to have a buffering effect on organizational frustration and stress levels (Blegen, 1993; Keenan & Newton, 1984; Kirmeyer & Dougherty, 1988). It can modify the relation between stress and burnout so as to help people with high stress to cope better with the situation and develop only moderate levels of burnout (Etzion, 1984). Other
studies have linked colloquial and situational support and strong group ties to reduction of job stress and conflict in organizations (Brooks, Wilkinson, Bott, & Taunton, 1993; Chapman, 1993; Nelson, 1989). Nelson (1989) noted that low-conflict organizations are characterized by higher numbers of intergroup strong ties, measured as frequent contacts, than are high-conflict organizations.

According to Chapman (1993), the development of support among colleagues is dependent upon individual and group communication opportunities that provide stable and continuing relationships. Jones (1993) noted that the process of resolving conflicts supports teamwork, coalition building, and networking among diverse groups.

According to Chichin (1992), findings from a study of 487 para-professional home care workers in New York City indicated that the ability to develop close interpersonal relationships with home care clients and their families is one of the most attractive and rewarding aspects of work. In this article, it was suggested that agencies focus on their roles in providing an optimum environment for the development of such relationships.
Autonomy is a variable frequently recognized in health care literature as a cause of job satisfaction (Blegen, 1993; Wiens, 1990). Autonomy is the ability to carry out one's professional duties in a self-determined manner and to act on acquired knowledge (Wiens, 1990; Kramer & Schmalenberg, 1988). Kramer and Schmalenberg (1988) further define autonomy as not only the freedom to act and succeed, but also the freedom to act and fail. According to Geiger and Davit (1988), employment in a bureaucratic organization may impede the development of professional autonomy for professional nurses more than any other factor. According to Arches (1991), in a recent study involving social workers, a workplace negatively affects workers in varying degrees when it constrains autonomy and promotes bureaucratization. She concluded that as long as workers lack the autonomy they expect to use in their work with clients, they are likely to be dissatisfied and experience some degree of burnout.

In a study conducted by Fuszard, Slocum, & Wiggers (1990), it was suggested that nurses in rural hospitals must be generalists. The rural nurses in this study were found to have a great deal of autonomy in clinical decision-making. Other literature related to the issue
of nurse autonomy indicates that nurses have left the profession due to lack of autonomy in decision-making and because of lack of respect for their knowledge and skills (Fuszard et al., 1990; Prescott & Bowen, 1987).

According to a study by Beck-Friis, Strang, and Sjoden (1991), different aspects of job satisfaction dominated positive results. Measurable effects were low job turnover and high self-esteem, despite long periods in the hospital-based home care agency (mean 5.4 years), demanding jobs, and dealing with severely ill and dying patients. The reasons for the positive results were related to ongoing care of staff in terms of positive feedback, continuous education, delegation of responsibility, stimulation of own initiatives, and support when necessary.

**Work conditions**

Equal workload is an aspect of work conditions for which little, if any, research could be found for home care workers. A study of urban public transit operators by Carrière et al. (1991) concluded that a combination of high workload demands and low job control are associated with occupational stress. Prolonged exposure to certain job demands can also lead
to a variety of pathological outcomes including mental and physical disorders.

In a study by Fox et al. (1993), data were collected from 89 resigned nurses and 1,044 nurses who remained on staff. They defined seven factors as important: workload, staffing, time with patients, flexible scheduling, respect for nursing administration, salary, and promotion opportunities. The unique factors of interest to those who resigned were interest in increasing nursing knowledge, work stimulation, and decision. The factors of importance to those who stayed were child care facilities, fringe benefits, and respect by physicians.

Kirmeyer and Dougherty (1988) noted the significance of overload and its effect on employees. They concluded that overload may result in greater job dissatisfaction, decreased productivity, a lower quality of performance, and feelings of tension, anger, and personal failure.

Organizational change

Organizational change such as a major reorganization and the expectation that a company will be sold or relocated has been recognized as aspects that can significantly affect workplace stress
(Lawless, 1992). According to Schermerhorn, Hunt, and Osborn (1991), any change can be hard on people, but large-scale organizational restructuring can be really difficult.

Changes in the rural environments could increase demand for home care since other facilities may not be available. Sharp (1991) noted that when a rural hospital closes, there is an accompanying loss of jobs and an immediate impact on the rural economy. Often, the closure of a hospital is followed by the departure of local physicians to communities where hospital care is available. This type of change could stimulate growth in the home care service and spur organizational change to meet the health care demands and needs of the community.

**Employee benefits/progressive programs**

Employee benefits are recognized by Lawless (1992) as a contributor to organizational stress level. "Employers who provide a wide range of benefits and competitive compensation will have lower organizational stress levels" (Lawless, 1992). "Counseling support programs can reduce work stresses and increase job satisfaction" (Chapman, 1993).
In a study by Singleton (1991) regarding turnover, the factors that were important to employees who stayed with the organization were child care facilities, fringe benefits, and respect by physicians. Although this study did not target stress per se, turnover has often been documented as a result of stress.

**Job design and physical environment**

Job demands are psychological stressors, such as requirements for working fast and hard, having a great deal to do, not having enough time, and having conflicting demands (Fox et al., 1993). Chapman (1993) noted that poor work area design and distant units may produce physical and social isolation from peers, with the potential to produce work stress.

In a recent study of work stress and job satisfaction in hospital-based home care, the authors noted that demanding jobs contributed significantly to job satisfaction. "Working with severely ill and dying patients may initiate stress reactions, and the care of the dying patients in their homes makes special demands on the caregiver" Beck-Friis et al. (1991). Work with severely ill patients creates a high demand for qualified competence in palliative care and expectations of thorough psychological knowledge. In
this study, it was found that registered nurses and doctors, as compared to nurses' aides, more often felt that their work gave them opportunities to learn new skills and that their work was valid and not monotonous.

In looking at decentralization at the unit level in nursing, Loveridge (1988) concluded that the combination of more flexible organizational structures with more complex technologic responsibilities was associated with a lower rate of staff turnover. This supports the assumption that there will be less stress in the more decentralized satellite units.

Job design stresses associated with home care workers have been documented. "Some of the stressors of home care nurses were exposure to many deaths over short periods of time; the cumulative drain of grief, loss, and regret, especially in situations where they felt they were not able to achieve pain or symptom control; concern for family members they perceived to be at high-risk in terms of bereavement; and the tension of trying to free themselves from cultural and professional biases about what constituted a 'right to die'" (Munley, 1985).
Role-related demands

The word role is borrowed directly from theatrical usage and refers to behavior which is attached to certain positions rather than the individuals who hold these positions (Cox, 1980). Because roles are norms that apply to categories of people, different roles have different sets of demands associated with them.

A major source of role-related demands is that of responsibility. Cox (1980) indicated that there are substantial costs to health associated with heavy responsibility. According to Cox (1980), there are two different sorts of responsibility, i.e., responsibility for people, for their work, welfare, and promotion; and second, responsibility for things, which can also imply a responsibility for people. For example, the supervisor who is responsible for a company’s cranes is also to a degree responsible for the crane’s drivers. According to Cox (1980), it is responsibility for people which appears to carry the greatest risk to health. Albrecht, Irey, and Mundy (1982), for example, reported that health and social service professionals, such as caseworkers in protective services, are particularly vulnerable to mental and physical stress and exhaustion because of the work they do---caring for
deeply troubled people day after day. Albrecht et al. (1982) noted a study by Cobb and Rose that compared the incidence of various illnesses among a group of air traffic controllers (a group with considerable responsibility) and among a group of "second class" airmen. Hypertension was found to be four times as prevalent among the controllers as among the airmen. According to Cox (1980), the evidence of most studies in this area points to a marked cost of heavy responsibility.

In a recent study, Makowsha, Kluge, and Sprusinska (1992) assessed the significance of different types of loads to which working women are subjected in relation to reported chronic fatigue. The investigation involved a group employed at knitting and another group at assembly lines (para-professional). In addition to assessing their level of chronic fatigue, they also analyzed the influence of 30 variables on fatigue level. The variables concerned physical and psychological workload, organizational or social climate of work, and demographic and family factors. They found the most important factor influencing chronic fatigue was "experiencing emotional tension" resulting from family problems. Other factors having
substantial significance for development of chronic fatigue were also associated with emotional tension and resulted from the social climate in the workplace.

A recent meta-analysis by Blegen (1993) sought to describe the magnitude of the relationships between nurses’ job satisfaction and the variables most frequently associated with it. The analysis revealed that job satisfaction was most strongly associated with stress and organizational commitment. Variables frequently included in these studies with low correlations included age, education, tenure, and professionalization. Silverman, Eichler, and Williams (1985) noted there was a slight tendency for respondents with more years of formal education and a greater family income in 1984 to report higher levels of stress.

Poole and Langan-Fox (1992) looked at role reward and role stress in managerial and professional women. Their study was designed to examine differences in role rewards and stress amongst a group of 163 managerial and professional women. Although no significant differences were found between managerial and professional women, the mean scores indicated the role of employee is both the most rewarding and most
stressful. This further emphasizes the importance of the worksite as to presence or absences of factors that reduce or produce stress.

Hall, Stevens, and Meleis (1992) suggest that nurse managers have a stake and responsibility in the well-being and job satisfaction of clerical workers in patient care areas. In this study, the unit clerks and clinic clerks described work experiences that implied responsibility of others for their well-being. Some experiences described were interactional dynamics in the workplace and organizational problems. They noted that although clerical workers were prompted by an equal number of open-ended questions about satisfaction and stresses of their jobs, discussions of job pleasures were outweighed by the stories they related about their frustrations and burdens. The findings in this study seem to challenge many commonly held assumptions about clerical workers. This study supports the likelihood that all women, regardless of occupation, have needs for achievement, progress, involvement, and pride in their work. It concludes, however, that nurses have the responsibility to restructure the workplace organizationally and
politically to maximize the strength of this group of workers.

According to Shankar and Famuyiwa (1991), the occupational category of individuals can determine to some extent the stress they experience. Contrary to this researcher's assumption, their study of three occupational groups indicated that operators in the lowest hierarchy experienced significantly higher distress and job stress. These findings were supported by previous findings by Kornhauser who had indicated that stress on workers increases the lower they are in the organization. Shankar and Famuyiwa (1991) indicate that repetitive, monotonous, and unstimulating jobs by themselves are known to induce stress reactions. They also conclude the inferior status of these workers in the organizational hierarchy, coupled with poor social support from supervisors and management in general, may make it difficult for them to alter frustrating situations at work and consequently they tend to perceive the working environment as more stressful than others do.

In a study of stress and strain in blue-collar and white-collar management staff, Axelrod and Gavin (1980) suggested that the two groups differed significantly
with respect to how role conflict, job security, quantitative workload, and utilization of skills impact various strains. Numerous studies have been conducted regarding stress in the professional health care worker (Hartrick & Hills (1993), Brooks et al. (1993). However, fewer studies could be found that address the issue of factors in the workplace that reduce or produce stress in the para-professional health care worker.

**Professional/Para-Professional**

Professional personnel in Home Health/Hospice may well experience greater role conflict as their jobs become more complicated. They are expected to change their method of documentation and service delivery to conform with industry changes such as computerization, changes in technology, and organizational and societal expectations. As they become more generalists in their practice, they must also take on the role of student in order to keep up with nursing practice issues.

The clerical workers and other para-professionals may experience less role ambiguity because their jobs are more structured and unchanging. However, the clerical workplace in the urban office may be viewed by some as more stressful than rural worksites. In a
study conducted by Hall et al. (1992), interviews of unit and clinic clerks in patient care areas identified their work experiences to have interactional dynamics in the workplace, issues of relative powerlessness, stresses involved in dealing with ill clients, organizational problems, and occupational hazards.

According to Schermerhorn et al. (1991), vertical conflict may arise between levels in an organization's hierarchy of authority. This could be a conflict between a supervisor and a subordinate over such things as task goals, deadlines, and performance accomplishments. There may be situations present in which a low-power person (para-professional) needs the help of a high-power person who will not respond when people of dramatically different values are forced to work together.

The content theories of work motivation help to form a basis for evaluation or comparisons expected in the professional/para-professional groups. "Although content theorists disagree somewhat concerning the exact nature of human needs, they do agree that individual needs activate tensions that influence attitudes and behaviors. Such things as poor performance, undesirable behaviors, and/or decreased
satisfaction can be partially explained in terms of 'blocked needs' or those that are not satisfied on the job" (Schermerhorn et al., 1991).

The professional groups in this study were expected to record higher workplace stress levels because of the assumption by this researcher that the professionals would have higher needs for achievement, responsibility, advancement, and professional growth. To the extent that these needs are addressed, there would be greater or lesser workplace stress levels.

The para-professional groups conversely were expected to have fewer higher order needs or expectations, thus less stress if the lower order needs are met. Research identifies some tendency for higher order needs to increase in importance over lower order needs as individuals move up the managerial hierarchy (Schermerhorn et al., 1991). The para-professional groups were expected to experience less role ambiguity because their jobs are more structured and change less frequently and there is presumed to be positive social support from peers and management.

Work Setting: Urban (Large)/Rural (Smaller)

The physical work environment encompasses many factors, from the parking lot and location of the
building to the size and noise in the work area. Inadequate parking spaces or a parking lot too far from the building or in an insecure place can cause irritation and stress to employees.

It is important to determine if all organizations in a sector such as home health face the same environment, or whether environments must be uniquely defined for each unit or sub-unit. As noted in *Environments and Organizations*, Carroll (1984) distinguished organizational, population, and community levels. According to Aldrich and Marsden (1989), one of the classic organization-environment studies conducted by Lawrence & Lorsch in 1967 drew very fine distinctions, noting that different sub-units of a single firm may face quite dissimilar environments. Aldrich and Marsden further stated that few comparative studies of organizational fields have been conducted. According to Alderfer and Smith (1982), there may be power differences among groups in an organization. Types of resources that can be obtained and used differ among groups, thus supporting the supposition that different groups or sub-units in an organization may be environmentally unique. Comparisons between practice areas such as intensive care units and medical-surgical
units have attempted to identify what factors are stressful and whether some nursing environments are more stressful than others (Cavanagh, Snape, & Ellis, 1992). Although many different practice areas have been studied, home health/hospice has largely been overlooked.

In a study by Preston and Crawford (1990), communities are thought to produce stress in individuals, but can also provide the coping resources that help modify these stressors. Examined were differences in stress responses among a random sample of 900 elderly living in nine metropolitan and nine non-metropolitan, randomly-chosen communities in six northeastern states. Findings support the existence of community differences in stress responses for these elderly respondents and show evidence of a link between community structure and individual behaviors.

According to Schultz and Schultz (1994), the size of an office building can influence working relationships. The smaller the building, the closer the relationships among employees tend to be.

Groups are most cohesive and perform best when group size is small. Studies have shown that large groups have less coordination and lower morale (Frank &
Anderson, 1971), and are less active (Indek, 1965) than smaller groups.

According to Fuszard et al. (1990), forty-five percent of all U.S. Community hospitals are rural and small. They are unique in that there is little use of committee structures so common in urban settings. The staff have such constant contact with their administrators and other departments that informal, open communications permit information-sharing and decision-making.

Decentralized decision-making is common in urban settings, made possible by "flattening" of organizations. Rural hospitals have always had simple, small hierarchies, permitting staff input in such areas as hospital renovation plans, selecting equipment and supplies, and choosing areas for diversification.

Crowding or high density can be a source of stress in people. People who live and work in crowded settings found often in urban areas may share problems associated with space and size. Calhoun (1962) allowed rats to reproduce with no constraints but for space. At first, all was bliss; however, with unchecked population growth, the mortality rate rose. Family structure broke down, and there were some instances of
cannibalism. Upon dissection, many rats showed biological changes characteristic of stress.

According to Rathus and Nevid (1991), findings suggest that with humans it is not crowding per se that is so aversive. Instead, it is the sense that one does not have control over the situation.

When comparing rural and urban sites, group size must be considered. From the turn of the century, research has been directed toward the effects of the presence of other persons on individual performance and on the characteristics of social interaction and problem-solving in different-sized groups (Hare, 1992).

As each additional member joins a group, the number of potential relationships between individuals and sub-groups increases rapidly, thus placing more demands on the leader in coordinating group activity. With an increase in group size, the time available to each member for communication decreases, the gap between the top participator and other group members grows proportionately greater, and an increased proportion of members feel threatened and inhibited (Hare, 1992).
A study by Albrecht et al. (1982) explored the relationship between adequate support systems and job-linked tedium by attempting to determine whether office communication patterns affect anxiety and exhaustion among workers. They noted that access to more information means more work. Those who are centrally located in the network process more incoming messages and deliver more outgoing ones. Therefore, they may be the most overloaded, overworked members of the agency.

A recent study conducted at the Yale University School of Medicine identified stressors in an academic setting to include those that come from rising health care expectations of the public, the replacement of fee for service indemnity health care by managed care and vertically integrated health care systems. They noted that perhaps the most complex tensions exist between the medical school dean and the academic hospital director. "The overarching tension in the academic health center results from striving to balance the need to fulfill academic goals with the need to fill hospital beds to maintain financial solvency" (Burrow, 1993).

The parent office, which is the largest office in the agency under investigation, assumes the primary
responsibility to assure that the mechanisms, policies, and procedures are in place to maintain financial solvency. Thus, the parent office employees may be the most overloaded members in the agency.

In a study of social workers, Arches (1991) concluded that as long as workers lack the autonomy they expect to use in their work with clients, they are likely to be dissatisfied and experience some degree of burnout. Workers are most satisfied when they have autonomy, are not limited by demands of funding sources, and are not stifled by bureaucracy.

Hoyer (1988) noted that in the first few months of 1986, the home health industry began to react to cutbacks in Medicare expenditures that the Health Care Financing Administration had initiated the previous year. Bureaucracy in the form of cutbacks and financial restraints have been a constant companion in home health care. Stress and burnout, as they relate to bureaucracy, may therefore be a significant factor in the home health care worker's environment.

Arches (1991) noted in a study by Pavalko that bureaucratization allows for the control, centralization, and coordination of large numbers of workers in one location. It includes changes in the
content of work, increases in the division of labor, and increases in specialization. According to Arches (1991), isolation, fragmentation, and deskilling are the consequences of bureaucratization. Feelings of isolation occur, whatever the size of the setting, when rule-governed and codified behavior, constraints on scheduling, and separation of services inherent to the bureaucratic structure limit peer consultation and informal interactions. Fragmentation of services prevents workers from holistically approaching their task. This compartmentalization into narrowly defined tasks and knowledge areas eliminates the potential for any one worker or group to gain control over the total output. With deskilling, there is breakdown and destruction of a worker’s generalized body of knowledge and professional skills as a result of the rationalization of skills, the division of labor, specialization, and the reliance on the technology endemic to the bureaucratic organization of work. Deskilling disempowers workers and increases their dependency.

In small rural home health satellite offices, employees are cross-trained and therefore learn many skills that contribute to the overall provision of
services. Fuszard et al. (1990) suggested that in small rural hospitals every nurse (professional) must be a generalist and that they have a great deal of autonomy in decision-making. This would suggest that stress would be lower in these work settings.

Several demographic trends suggest that home care will grow rapidly in the future. Most significant is the aging of the population, particularly the aging of elderly people themselves. The fastest growing segment of the U. S. population is people over the age of 85--the "very old"--who are most likely to suffer illness and disability and therefore need long-term care (Donovan, Kurzman, & Rotman, 1993). At the same time, the traditional providers of home care for the frail elderly--female family members--are less likely to be available as informal caretakers because of their increased participation in the labor force (Donovan et al., 1993).

"The really good news is that home health care is being placed in the mainstream of the health care delivery system for the general public for the first time" (Hospital Home Health [HHH], 1993). There will therefore be a great need for a large force of professional and para-professional caregivers to
provide services to this population. It will be essential to provide a work environment as stress-free as possible to attract and retain a large group of good employees.

According to a recent article ("States see an increase", 1993), Louisiana had a 22.1% increase in home health agencies in 1992. With this continued trend, there will be increased demand for specialized services which is expected to cause increased demand for specialized staff. Nurses, in particular, will need exceptional skills ("Home health enters mainstream", 1993). It is also expected that hospital-based home care agencies must be prepared not only to react to external changes such as health care reform, but also foster internal changes in attitude, and often in operation, within the hospital system as patients are being even more readily discharged to home care.

As presently existing, rural satellite offices of the agency being investigated have fewer personnel and make fewer visits than the parent office. Although each satellite is designed as the parent office, there is only one immediate supervisor, which is in effect one boss to answer to directly. Work groups are smaller, which allows for individual input into
problem-solving on a daily basis and fewer barriers to communication. This may be viewed as an advantage and a significant factor in the presence or absence of stress in this environment.

Scholars have argued that large groups are superior to small ones because big groups have more capabilities and resources with which to solve group tasks. Thus, large groups have greater information-processing capabilities (Halebian & Finkelstein, 1993). Although the advantages of large groups may be considerable, their size also tends to create coordination and communication problems that small groups do not have (Halebian & Finkelstein, 1993). This might contribute to less stress in satellite offices when communication is considered and increased stress in the larger urban parent office.

The satellite service areas are rural, which results in less traffic and problems with time management. There is less call-back time. Since there are fewer job opportunities in the satellite areas, the personnel take advantage of a stable job at above area market pay scales and benefits, resulting in less stress. Satellite offices depend on the parent office for administrative consultation and guidance, clinical
supervision, and staffing supplementation, resulting in higher workplace stress for the urban parent office.

**Rationale**

A review of literature has been presented recognizing the many aspects of job stress and the effects it is capable of producing in the workplace. Factors identified as producing or reducing stress include employee support and training, work conditions, organizational change, employee benefits, progressive programs, and job design.

The workplace where home health/hospice care is delivered has become more diverse, with stressors such as time constraints, traffic, violence, weather, location, litigation, and more regulations and bureaucratization than has been experienced in the past. The demand for services has increased, as has the intensity of services delivered. Employers must therefore make every attempt to identify and minimize the impact of stressors in the workplace, thus allowing employees to provide maximum quality care while reducing the potential for burnout, turnover, and absenteeism.

The financial consequences of high turnover, frequent stress-related illness, lowered productivity,
and quality of care can be devastating for employees, employers, and the community being served. For these reasons, it is important to study the extent of organizational stress in home health settings. By studying and identifying the extent of organizational stress, home health agencies can address stress issues before they become a serious and costly burden.

The optimum functioning of both professionals and para-professionals is vital to the survival of Home Health/Hospice Care. Therefore, the workplace of both these groups must be constantly re-evaluated and studied to ascertain any differences in their needs. By periodic evaluation and comparison of the workplace, management can develop strategies to satisfy unmet needs and thus retain a satisfied work force rendering quality cost-effective care. Management must be aware of how the employee (professional and para-professional) perceives the workplace.

With the use of statistical information enlightening organizations as to the factors present that produce or reduce stress as perceived by the professional and para-professional, they will be better able to address the identified problems. With solutions based on solid evaluation and study, the
resultant workforce should be less stressed and more stable.

**Purpose of Study**

Recognizing the many factors of job stress present and the effects it is having in the workplace, this study dealt primarily with measuring the workplace stress of seven Home Health/Hospice units of a hospital-based agency. The factors studied included employee support and training, work conditions, organizational change, employee benefits, progressive programs, job design, professional/para-professional, and rural/urban. The units were studied for differences in perception of stress levels of the urban (large) work setting and rural (smaller) work setting. The professional staff including RNs, LPNs, Supervisors, and Therapists was compared to the para-professional staff which included aides, clerical workers, and technicians. The professional staff and the para-professional staff were each viewed as a unique work group.

Due to the expected increase in demand for home health/hospice services, more home health agencies/offices will be required to provide the service in expanded areas throughout the country. By
addressing workplace stress in already existing organizations, measures can be taken to design the optimally stress-free environment. Questions concerning optimal size of offices and number of employees as well as optimal location for service delivery can be more effectively addressed by the study. Identification of important factors that affect organizational stress levels can also be determined.

**Hypotheses**

It was expected that on all scales measuring perceived organizational stress, there would be higher stress level measurements in the parent urban office than in the rural satellite offices.

It was expected that on all scales measuring perceived organizational stress, there would be higher stress level measurements reported by the professional work group than the support para-professionals.

**Method**

**Subjects**

The sample of this study was a convenience sample of 146 employees in a hospital-based home health/hospice program with one urban parent office and six rural home health/hospice satellite offices. The active census of this agency at that time was more than
1,000 home care patients. With the consent of the Home Health/Hospice Director, questionnaires were distributed to employees in the satellites and in the parent office by the Clinical Supervisor, Aide Supervisor, and Relief Supervisor during a staff meeting and inservice. Professional staff consisted of RNs, LPNs, and therapists. Para-professional staff consisted of typists, secretaries, billing clerks, and utilization review clerks, as well as female and male nurse assistants.

The participants ranged in age from 21-66 years. The educational status of the participants ranged from grade 10 to post-graduate college degree-prepared. Years of employment in the organization varied from several days to 19 years, with an average of 10 years. Full-time and part-time staff participated in the study.

Measures

The independent variables in this study were the rural satellite workplaces and the urban parent workplace, and the professional staff and para-professional staff. The rural areas are smaller than the parent office, and each workplace functions with the administrative support of the parent office and has
one supervisor who is responsible for the ongoing functioning of the unit. Each office is located in a rural area with service population differences ranging from 23 to 140 patients (average of 85). Staff size average is 11 employees. The urban parent office staff size is significantly larger, with approximately 107 employees. The service population fluctuates between 400 to 500 patients.

Each location was assigned a number: Alexandria - #1, Bunkie - #2, Colfax - #3, Jonesville - #4, Leesville - #5, Marksville - #6, and Urania - #7, for identification. The satellite offices were ultimately compared as one group and given the #2 identification as rural. Alexandria was assigned #1 - urban. The professional group, which included professional management staff and professional staff of RN’s, LPN’s, and Therapists, was assigned #8. The para-professional staff, which included clerical staff, aide staff, and orderly staff was assigned #9. The likert scores for each individual were recorded under the appropriate scale. The Employee Support and Training was assigned "A", Work Conditions "B", Organizational Change "C", Employee Benefits "D", Progressive Programs "E", and Job Design and Physical Environment "F".
The completed questionnaires were collected and grouped by professional group, i.e., professional management staff and professional staff of RN's, LPN's, and Therapists and para-professional staff, i.e., typists, secretaries, billing clerks, and nurse assistants. The separate work groups were identified as to urban or rural, i.e., Alexandria being urban, and Bunkie, Colfax, Jonesville, Leesville, Marksville, and Urania being rural. The returned questionnaires were numbered using 3-digit codes (001, 002, 003, etc.) for easier tallying and follow-up.

Population statistics from the 1990 census of the area in which the agency office is located were used to determine rural and urban classification, i.e., Alexandria and close surrounding areas with a population of 65,944 considered urban, and the satellite offices considered rural with populations as follows: Bunkie - 5,044, Colfax - 1,696, Jonesville - 2,720, Leesville - 7,638, Marksville - 5,526, and Urania - 782. According to Tischler (1993), an urbanized area is an area that contains a central city and the continuously built-up and closely settled surrounding territory that together have a population of 50,000 or more.
Responses to each question were answered anonymously by participants using a likert scale that was scored from Disagree strongly, Disagree somewhat, Neutral or Don’t know, Agree somewhat to Agree strongly. The numerical value of each answer was 0, 1, 2, 3, and 4, or 4, 3, 2, 1, and 0, depending upon the positive or negative direction of the question. A key was provided by NWNL to tally scores for the test. The template was placed over each employee’s test, and the corresponding numbers for each statement on the right-hand margin of each test was recorded. The numbers within each category were added and subtotals recorded on the Respondent Tally Sheet.

The NWNL Respondent Tally Sheet was used to tally employee test responses. Return questionnaires were numbered using 3-digit numbers (e.g., 001, 002, 003, etc.), and the numbers were also recorded in the space provided in the table in case there was a need to refer back to a specific questionnaire. The number 8 was used to identify professional staff, 9 for para-professional staff, 1 for location, and 2 for position. To arrive at a grand total for each respondent, lines A through F were totaled for each respondent. Subtotals for each category were derived by adding the respondent
scores for each category. The tally sheet was devised to add up 10 employee test responses on each sheet.

The NWNL Worksite Tally Sheet was used to compile responses from the Respondent Tally Sheets. When completed, this form gave the overall grand totals for the specified worksite.

Analysis of variance was conducted on each scale to examine whether the two occupational groups (professional, para-professional) and the worksites (urban, rural) differed with respect to their perception of factors in the worksite that reduce or produce stress.

The group mean derived from the grand score tally sheet of urban/rural and professional/para-professional groups were compared to the NWNL Scoring Guide, as were the individual scale means from each work group. The grand score 0-184 reflects the overall risk that the organization will suffer from the negative effects of job stress. The scale categorized 0-81.1 as Low, 81.2 to 101.5 as Medium, and 101.6 to 184 as High.

Instrument

This study utilized instruments to describe the sample, explain the study, provide instructions to the surveyor, and collect and record stress perception
data. The instruments and examples used were obtained from Peggy Lawless, Research Project Director, Northwestern National Life Insurance (Appendix A). The instruments included (1) Employee Cover Letter (Appendix B), (2) Demographic Data Sheet (Appendix C), (3) NWNL Workplace Stress Test (Appendix D), (4) NWNL Workplace Stress Test Employer Key (Appendix E), (5) Respondent Tally Sheet (Appendix F), and Work Site Tally Sheet (Appendix G).

The main instrument, the NWNL Workplace Stress Test, had six sections. A single score was obtained for each individual on each section by using the NWNL Employer Key (Appendix E). The sections were: A, B, C, D, E, and F. The names for the sections were Employee Support and Training, Work Conditions, Organizational Change, Employee Benefits, Progressive Programs, and Job Design and Physical Environment. The section names were not included on the test to avoid influencing employees' responses. According to Northwestern National Life's research, the factors in each section are closely related.

The statements were grouped into these categories because the factors in each were closely related according to NWNL's research. NWNL confirmed that
these groups of factors affected two measures of workplace stress costs--illness and turnover.
Principal component analysis was used to group organizational factors (NWNL, 1992). Multiple regression analysis was used to confirm the correlation of the six groups of factors with employee illness and desire to quit (NWNL, 1992).

The six sections were included in the study to determine causes of stress in the organization and to find out where each group fell on the scale of low to high perceived stress. The instrument was used to measure organizational stress in terms of the respondent’s perceptions of stressors in the workplace. The overall stress score is a summation of responses across the six sub-scales divided by the number of respondents. This score represents the general risk the organization will suffer from the negative effects of job stress.

The Employee Support and Training Scale contains 10 measures of how well management communicates with employees and encourages a non-threatening, comfortable work atmosphere. The scale also reflected adequacy of training, clearness of direction, and fairness of management.
<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>14.1</td>
<td>14.2</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>19.7</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

The Work Conditions Scale contains 11 items measuring how effectively workloads and employees are managed. A low score indicates management reduces stress by empowering employees, handling personnel issues, ensuring adequate resources are available and allocating work effectively and equitably.

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>17.8</td>
<td>17.9</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>22.3</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

The Organizational Change Scale comprises two changes which significantly affect workplace stress: a major reorganization and the expectation that the company will be sold or relocated. A low score indicates fewer stressors related to change.

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2.3</td>
<td>2.4</td>
<td>4.6</td>
</tr>
<tr>
<td></td>
<td>4.7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

There are 10 items in the Employee Benefits Scale describing the employee benefits and workplace amenities that are offered by the organization. Employers who provide a wide range of benefits and
competitive compensation will record a lower score and lower organizational stress level.

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>18.3</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>18.4</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>22.1</td>
<td></td>
</tr>
</tbody>
</table>

The Progressive Programs Scale contains five advanced programs or activities that help employees cope with job stress. A low score indicates lower workplace stress.

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12.9</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>13.0</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>14.2</td>
<td></td>
</tr>
</tbody>
</table>

The Job Design and Physical Environment Scale uses eight characteristics of the organization’s working environment that affect stress. The scale reflects type of work, staffing levels, and physical conditions.

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15.9</td>
<td>18.9</td>
</tr>
<tr>
<td></td>
<td>16.0</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>18.8</td>
<td></td>
</tr>
</tbody>
</table>

The grand score for the NWNL Workplace Stress Test reflects the overall risks that the organization will suffer from the negative effects of job stress. This score is the sum of all category scores for each respondent divided by the number of respondents.


<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>81.1</td>
<td>101.6</td>
</tr>
<tr>
<td></td>
<td>81.2</td>
<td>101.6</td>
</tr>
<tr>
<td></td>
<td>101.5</td>
<td>184</td>
</tr>
</tbody>
</table>

Procedure

Written permission to conduct the study was received from Administration. The use of the NWNL tool was granted by Peggy Lawless, Research Project Director, Employee Benefits Division of Northwestern National Life Insurance Company. A copy of the tool with instructions and grading templates was forwarded to this researcher from the 1992 study on workplace stress by Peggy Lawless. Packets were assembled to distribute to the employees including a cover letter asking the employee to complete the questionnaire, NWNL Workplace Stress Test, and a return envelope to ensure confidentiality of answers. The worksite was identified by name. The employees were asked to identify the appropriate job classification, age, gender, marital status, and full-time or part-time status. The questionnaire was distributed to employees by a staff supervisor, and was returned in an envelope that did not have employee identification, thus assuring confidentiality. The Clinical Supervisor assembled staff in an office room and distributed the
questionnaire in each satellite office. The questionnaire was completed and returned to the Supervisor when finished. The Aide Supervisor in Alexandria assembled the aide/orderly staff in an office meeting room and distributed and collected the questionnaire when completed. The Clinical Supervisor assembled the Alexandria clerical and professional staff in an office meeting room and distributed and collected the questionnaire when completed. The Supervisors assured that order was maintained during completion of the questionnaire, and explained the procedure and assured respondents that confidentiality would be maintained.

Data Analysis

Initially, the scores were tallied using the NWNL Stress Test Employer Key to calculate the scores for each respondent. The average score for the worksite was obtained, and the grand score (mean) for the organization was obtained for comparison with the NWNL Workplace Stress Test Scoring Guide. Analysis of variance was conducted for the urban/rural worksites and the professional/para-professional worksites on this overall stress score.
Analysis of variance was conducted for each individual category to further examine whether the two occupational groups and the worksites (urban/rural) differed with respect to their perception of employee support and training, work conditions, organizational change, employee benefits, progressive programs, and job design and physical environment.

Analysis of variance was conducted on combined independent variables, i.e., urban professionals/paraprofessionals and rural professionals/paraprofessionals. This was done to evaluate for possible interaction between variables.

Results

Responses by 146 individuals to the NWNL Workplace Stress Test were analyzed using Analysis of Variance and the NWNL Workplace Stress Test Scoring Guide. Because there were multiple tests on the same data, the null was rejected at $p < 0.008$ using the Bonferroni technique to avoid a type one error.

Urban/Rural Measures

Table 1 was prepared to illustrate mean scores and standard deviations for the urban and rural work groups on combined categories.
Table 1
Stress Level Mean Score Differences and Standard Deviations on Combined Categories of the Urban and Rural Work Groups

<table>
<thead>
<tr>
<th>Work Group</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>76.61</td>
<td>20.05</td>
<td>79</td>
</tr>
<tr>
<td>Rural</td>
<td>66.57</td>
<td>18.30</td>
<td>67</td>
</tr>
</tbody>
</table>

95 Pct. CI’s for Mean F=9.86 p=0.002

Pooled SD = 19.27

Urban/rural worksites

ANOVA on combined categories indicated that the urban worksite scored 76.61 and the rural worksites scored 66.57. The groups were significantly different, p <0.008. The hypothesis was confirmed that on all scales measuring perceived organizational stress, there would be higher stress level measurements reported by the urban worksite group than the rural worksite groups.

Table 2 was prepared to illustrate mean scores and standard deviations for the urban and rural worksites on each category of the NWNL Workplace Stress Test.
Table 2
Stress Level Mean Score Differences and Standard Deviations of the Urban and Rural Work Groups By Category

<table>
<thead>
<tr>
<th>Sections</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>A Employee Support and Training</td>
<td>12.419</td>
<td>8.076</td>
</tr>
<tr>
<td>95 Pct. CI's for Mean</td>
<td>F=20.22 P=0.000</td>
<td>Pooled SD=6.977</td>
</tr>
<tr>
<td>B Work Conditions</td>
<td>18.797</td>
<td>6.272</td>
</tr>
<tr>
<td>95 Pct. CI's for Mean</td>
<td>F=5.68 P=0.018</td>
<td>Pooled SD=6.048</td>
</tr>
<tr>
<td>C Organizational Change</td>
<td>4.139</td>
<td>2.427</td>
</tr>
<tr>
<td>95 Pct. CI's for Mean</td>
<td>F=8.54 P=0.004</td>
<td>Pooled SD=2.378</td>
</tr>
<tr>
<td>D Employee Benefits</td>
<td>17.241</td>
<td>5.115</td>
</tr>
<tr>
<td>95 Pct. CI's for Mean</td>
<td>F=2.34 P=0.129</td>
<td>Pooled SD=5.240</td>
</tr>
<tr>
<td>E Progressive Programs</td>
<td>8.127</td>
<td>3.216</td>
</tr>
<tr>
<td>95 Pct. CI's for Mean</td>
<td>F=16.87 P=0.000</td>
<td>Pooled SD=3.622</td>
</tr>
<tr>
<td>95 Pct. CI's for Mean</td>
<td>F=8.79 p=0.004 pooled SD=4.892</td>
<td></td>
</tr>
</tbody>
</table>

Employee support and training

ANOVA on this scale indicated that the urban worksite scored 12.405 and the rural worksite 7.194, with F=20.22 and P=0.000. The groups were significantly different, p <0.008, with the rural
worksite recording less workplace stress. However, when compared to the NWNL Workplace Stress Test Guide, both groups fell in the category of low stress, i.e., 0-14.1.

**Work conditions**

The urban location scored 18.797, and the rural location scored 16.403 with $F=5.68$ and $P=0.018$. When compared to the NWNL Workplace Stress Test Scoring Guide, the urban office recorded moderate stress (17.9 to 22.2), and the rural locations recorded low stress. On this scale, the groups were not significantly different.

**Organizational change**

The urban location scored 4.139, and the rural locations scored 2.985 with $F=8.54$ and $P=0.004$. The groups were significantly different, $P < 0.008$. The urban location scored more workplace stress. While both scores represented a medium classification as related to the NWNL Scoring Guide, they are on different spectrums of the scale in the medium category (2.4 to 4.6).

**Employee benefits**

On this scale, the urban location scored 17.241, and the rural location scored 15.910, which is not
significant with F=2.34 and P=0.129. When compared to the NWNL Workplace Stress Test Scoring Guide, they both fall in the low category for lower organizational stress level. When employers provide a workplace with wide-range benefits and competitive compensation, a lower perceived level of stress is anticipated.

Progressive programs

The urban location scored 8.127 and the rural location 10.597, which showed significant differences in the groups, with F=16.87 and P=0.000, p <0.008. Contrary to this researcher’s hypothesis, the urban location scored a lower perceived workplace stress level than the rural locations. Compared to the NWNL Workplace Stress Test Scoring Guide, all scores ranged in the low category scale, which is composed of five activities that help employees cope with job stress.

Job design and physical environment

The urban location scored 15.886, and the rural locations 13.478, with F=8.79 and P=0.004. A higher perceived stress level in the urban worksite was noted. Both groups fell in the low category when compared to the NWNL Workplace Stress Test Scoring Guide, reflecting that the type of work, staffing levels, and
physical conditions are not perceived to be stressful in this organization.

This researcher hypothesized that on all scales measuring perceived organizational stress, there would be higher stress level measurements reported by the urban worksite group than the rural worksite groups. ANOVA results indicated that, when evaluated individually, on all categories except Work Conditions and Employee Benefits, the urban groups were significantly different than the rural groups. On the Progressive Programs scale, the rural worksites, however, scored higher perceived stress than the urban. ANOVA on combined categories indicated that the urban worksite perceived more organizational stress than the rural worksite.

Professional/Para-Professional Measures

Table 3 was prepared to illustrate mean scores and standard deviations for the professional and para-professional groups on combined categories.
Table 3
Stress Level Mean Score Differences and Standard Deviations on Combined Categories of the Professional and Para-Professional Groups

<table>
<thead>
<tr>
<th>Work Group</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>71.09</td>
<td>19.44</td>
<td>57</td>
</tr>
<tr>
<td>Para-Professional</td>
<td>72.58</td>
<td>20.19</td>
<td>89</td>
</tr>
</tbody>
</table>

95 Pct. CI's for Mean $F=0.20$ $p=0.658$

Pooled SD = 19.90

Professional/para-professional worksites

ANOVA on these categories indicated that the professional worksite scored 71.09 and the para-professional worksite 72.58 with $F = 0.20$ and $p = 0.658$. There was no difference in the groups' perceptions of organizational stress. The hypothesis was not confirmed that on all scales measuring perceived organizational stress there would be higher stress level measurements reported by the professional group worksite than the para-professional worksite group.

The perceived organizational stress levels for the professional and para-professional groups on each
category of the NWNL Workplace Stress Test are presented in Table 4.

Table 4
Stress Level Mean Score Differences and Standard Deviations of the Professional and Para-Professional Groups By Category

<table>
<thead>
<tr>
<th>Sections</th>
<th>Professional</th>
<th></th>
<th></th>
<th>Para-Professional</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>A Employee Support and Training</td>
<td>9.860</td>
<td>7.412</td>
<td>57</td>
<td>10.124</td>
<td>7.466</td>
<td>89</td>
</tr>
<tr>
<td>95 Pct. CI’s for Mean</td>
<td>F=0.04</td>
<td>P=0.835</td>
<td></td>
<td>F=0.04</td>
<td>P=0.835</td>
<td></td>
</tr>
<tr>
<td>B Work Conditions</td>
<td>17.368</td>
<td>6.369</td>
<td>57</td>
<td>17.910</td>
<td>6.024</td>
<td>89</td>
</tr>
<tr>
<td>95 Pct. CI’s for Mean</td>
<td>F=0.27</td>
<td>P=0.605</td>
<td></td>
<td>F=0.27</td>
<td>P=0.605</td>
<td></td>
</tr>
<tr>
<td>C Organizational Change</td>
<td>3.632</td>
<td>2.882</td>
<td>57</td>
<td>3.596</td>
<td>2.125</td>
<td>89</td>
</tr>
<tr>
<td>95 Pct. CI’s for Mean</td>
<td>F=0.01</td>
<td>P=0.931</td>
<td></td>
<td>F=0.01</td>
<td>P=0.931</td>
<td></td>
</tr>
<tr>
<td>D Employee Benefits</td>
<td>15.281</td>
<td>4.720</td>
<td>57</td>
<td>17.494</td>
<td>5.436</td>
<td>89</td>
</tr>
<tr>
<td>95 Pct. CI’s for Mean</td>
<td>F=6.25</td>
<td>P=0.014</td>
<td></td>
<td>F=6.25</td>
<td>P=0.014</td>
<td></td>
</tr>
<tr>
<td>E Progressive Programs</td>
<td>9.825</td>
<td>3.942</td>
<td>57</td>
<td>8.899</td>
<td>3.708</td>
<td>89</td>
</tr>
<tr>
<td>95 Pct. CI’s for Mean</td>
<td>F=2.06</td>
<td>P=0.153</td>
<td></td>
<td>F=2.06</td>
<td>P=0.153</td>
<td></td>
</tr>
<tr>
<td>95 Pct. CI’s for Mean</td>
<td>F=2.06</td>
<td>P=0.153</td>
<td></td>
<td>F=2.06</td>
<td>P=0.153</td>
<td></td>
</tr>
</tbody>
</table>

Employee support and training

On Scale A, the professionals in the entire organization, urban and rural combined, scored 9.860, while the para-professionals scored 10.124, with F=0.04
and $p=0.835$ ($p < 0.008$). There was no significant difference between the group scores. Both professional and para-professional workers fell in the low area (0-14.1) when compared to the NWNL Workplace Stress Test Scoring Guide. This suggests that both groups perceive the organization is characterized by behaviors that reduce workplace stress.

**Work conditions**

The professional group scored 17.368 and the para-professional group 17.910. The groups were not considered to be significantly different with $F=0.27$ and $P=0.605$. The para-professional group scored in the medium stress range, however, when compared to the NWNL Scoring Guide.

**Organizational change**

On Scale C, the professional and para-professional groups scored 3.632 and 3.596, respectively, with $F=7.01$ and $P=0.931$, showing them to have no significant difference in perception of stressors in the organization related to change. They fell in the medium range when compared to the NWNL Scoring Guide.

**Employee benefits**

On Scale D, the professional group scored 15.298 and the para-professional group 17.494, which indicated
no significant difference, with $F=6.25$ and $P=0.014$. All scores fell within the low category when compared to the NWNL Scoring Guide, which indicates that the organization provides a wide range of benefits and competitive compensation.

**Progressive programs**

On Scale E, there was no difference in perception recorded between the professional (9.825) and the para-professionals (8.899), with $F=2.06$ and $P=0.153$. The scores fell within the low category when compared with the NWNL Scoring Guide.

**Job design and physical environment**

On Scale F, the professional group scored 15.123 and the para-professional group 14.562, with $F=.43$ and $P=0.512$, showing the groups differences to be non-significant. The groups fell within the low category (0-81.1) when compared to the NWNL Scoring Guide.

Table 5 is included to summarize and compare the combined independent variables of the study.
Table 5

Stress Level Mean Score Differences and Standard Deviations of Urban Professionals/Para-Professionals, and Rural Professionals/Para-Professionals

<table>
<thead>
<tr>
<th>Work Group</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Professionals</td>
<td>73.93</td>
<td>22.87</td>
<td>29</td>
</tr>
<tr>
<td>Urban Para-Professionals</td>
<td>78.16</td>
<td>18.28</td>
<td>50</td>
</tr>
<tr>
<td>Rural Professionals</td>
<td>68.14</td>
<td>14.29</td>
<td>28</td>
</tr>
<tr>
<td>Rural Para-Professionals</td>
<td>65.44</td>
<td>20.49</td>
<td>39</td>
</tr>
</tbody>
</table>

95 Pct. CI’s for Mean F=3.66 p=0.014

Pooled SD = 19.32

The urban professionals scored lower perceived stress (73.93) than the urban para-professionals (78.16), and higher stress than the rural para-professionals (65.44). In contrast, the rural para-professionals scored lower stress perception than the rural professionals.

Discussion

Urban/Rural Measures Combined Categories

This study confirmed the hypothesis that the urban worksite is perceived to be more stressful than the rural worksites. The study supports the importance of assessing the perceived workplace stress levels in
urban and rural home health/hospice worksites. Other researchers (Aldrich & Marsden, 1988; Alderfer & Smith, 1982) indicated that different units or groups in a single organization may face power differences and dissimilar environments.

**Professional/Para-Professional Measures Combined Categories**

The hypothesis was not confirmed regarding the assumption by this researcher that the professionals would perceive more stress than the para-professionals. Shankar and Famuyiwa (1991) suggested that the occupational category of individuals can, to some extent, determine the stress experienced. This was not confirmed by this study, which suggests a need for further investigation regarding this aspect of the worksite.

**Overall Worksite Combined Categories**

When the factor of location is considered along with professional status, the para-professionals in the urban office of this organization had a higher perceived stress score.

The ANOVA on combined factors, i.e., urban professionals/para-professionals and rural professionals/para-professionals, indicated scores that
were closely approximate to the significant level set by the researcher (p < 0.008). These findings support the need for further study. Shankar and Famuyiwa (1991) concluded that workers of inferior status in the organizational hierarchy, coupled with poor social support from superiors and management in general, may have a tendency to perceive the working environment as more stressful than others do.

It is interesting to note that the rural para-professionals scored lower than the rural professionals and that their scores, however lower, did not differ as much as their urban counterparts. This makes one wonder if the larger group size makes the group players tend to be less cohesive. Location appears to be a factor in stress perception.

**Employee Support and Training**

When scale questions were asked regarding how well management communicates with employees and encourages a non-threatening, comfortable work environment, the rural units perceived their worksites to be less stressful than the urban. These results are supported by previous studies by Fuszard et al. (1990), where the rural nurses were found to have a great deal of autonomy in decision-making, thus less stress. Arches
(1991) concluded that as long as workers lack the autonomy they expect, they are likely to be dissatisfied. Because the size of the rural units studied are considerably smaller in staff, community size, and patient population, it cannot be overlooked that size may have influenced the difference in stress perception, as well as location, i.e., rural/urban. Workers may indeed have more autonomy when there are fewer supervisors and co-workers to share responsibility, space, and resources.

When compared to NWNL's Scoring Guide, the scores fall in the low category. The assumption, therefore, is that management overall communicates well with employees and that the organization has characteristics that reduce workplace stress. Beck-Friis et al. (1991) related favorable results in organizations to positive feedback, continuous education, and support.

**Work Conditions**

The findings on the Work Conditions scale indicated that in the rural worksites, more so than in the urban site, management reduces stress by empowering employees, handling personnel issues, and allocating work equitably. Hare (1992) made reference to findings of Lawrence and Lorsch that different sub-units of a
single firm may face quite dissimilar environments. This study supports the theory that different sub-units are environmentally unique. Frank and Anderson (1971) concluded that groups are more cohesive and perform best when they remain small, which is the case in the rural worksites. This study affirms that relationships in larger offices could affect communication patterns causing anxiety and exhaustion among workers. The urban office under study has access to more information which means more work. As Albrecht et al. (1982) noted, those who are centrally located in the network process more incoming messages and deliver more outgoing ones. They may therefore be the most overloaded, stressed members of the agency. When compared to the NWNL Scoring Guide, the urban site recorded medium stress, while the rural areas reported low stress. This further supports the conclusion that the urban sites can expect to be more stressed. Further studies regarding work conditions are needed to confirm the correlation between size and factors in the workplace that produce or reduce stress. It would be beneficial to know how big an agency or sub-group should be allowed to grow before steps are taken to
retain a small, workable group. It would be beneficial to know at what point groups become less productive.

Although the professional and para-professional groups were not significantly different, each group scored in a different level of stress when compared to the NWNL Scoring Guide. The professionals scored in the low category, and the para-professionals in the medium. Management in the urban office should study ways to improve how workloads and employees are managed. Kirmeyer and Dougherty (1988) noted the significance of overload and its effects on employees. Management could look to the smaller, decentralized rural areas to pattern the restructuring of the urban office. The possibility of dividing the urban unit geographically into two or three sub-units is supported by this study. This type action is further supported by Schultz and Schultz (1990), as they noted that size and location can significantly influence working relationships, coping mechanisms, and support. The smaller units have been shown to have more coordination, higher morale, and more decentralization.

Organizational Change

All groups scored in the medium stress category when looking at organizational change. The agency
under study had just made structural changes that encompassed positions in the urban worksite when the tool was presented to employees. The rural personnel, however, did not experience the impact of the changes to the extent the urban office did. Previous studies by Aldrich and Marsden (1989) support this outcome with findings that power differences can be obtained and used differently in unique groups of the same organization.

Both the rural and urban worksites scored in the medium stress range, which could be attributed to the overall health care climate, both internally and externally. Under the present Clinton Administration, health care restructuring is a top priority. This, along with the placement of home care in the mainstream of the health care delivery system, may produce anticipatory anxieties and concerns among the workers.

McMahon (1994) reported that there are presently 457 home health providers in the state of Louisiana, and 300 seeking approval. This number could double in the next year, according to McMahon. This trend may contribute to feelings of stress from increased competition and increased demand for quality specialized care. The lower scores might be attributed
to the fact that the homecare organization under study is in its 20th year of service, has been relatively stable, and has met challenge and change in the past in a positive and supportive manner. The fact that the employees do perceive the organization in the medium category, however, should be taken seriously by administration, especially since the organization has made a significant change in structure and ownership since the study was conducted.

**Employee Benefits/Progressive Programs**

There was no difference in perception of organizational stress between the urban and rural sites on Employee Benefits. However, the rural sites recorded more organizational stress on the Progressive Program scale, which was contrary to the hypothesis.

The fact that the rural offices perceived there to be more stress on the Progressive Programs scale, although contrary to the hypothesis, may be explained upon re-evaluation. The organization offers a wide range of benefits; however, they are not available on an equal basis in all areas. For example, child care, covered parking, on-campus credit union and banking, exercise facilities, and discounts on meals in the hospital cafeteria are not available in the rural
areas. It might be advantageous in future studies to re-evaluate tool questions on this scale to more accurately evaluate the availability of the benefits to the unique units since they are offered by the organization, but restricted to some by circumstances of distance and location.

The professional/para-professional groups were not significantly different on this scale. Past studies identified by this researcher did not relate the importance of benefits to specific classification of workers. Singleton and Nail (1991) did refer to factors in the workplace that were important to workers, i.e., child care facilities, fringe benefits, and compensation. Future study is needed to determine if there are significant differences in these two groups to compare the varied needs of the professional and para-professional worksites and to evaluate how benefit packages might best be designed to meet the needs of workers.

When compared to the NWNL Scoring Guide, all groups were in the low category on both scales, which indicates that the organization provides a wide range of benefits and programs. Based on the results of this study, as administration in this organization plans
benefits and progressive programs with the new company with which it has formed an alliance, they should strive to retain as many of the present benefits and amenities as possible.

**Job Design and Physical Environment**

The urban office recorded higher organizational stress perception than the rural sites on this scale. When one examines the differences in these areas, one could conclude the higher stress in the urban office can be attributed to work volume (500 patients), higher staffing levels, congestion, twice the administrative red tape and direct worker supervision, and thus twice the responsibility. This assumption is supported by Fox et al. (1993) in a study that noted job demands are physical stressors, such as requirements for working hard and fast, having a great deal to do, not having enough time, and having conflicting demands.

When this study was conducted, the urban worksite was in a small, congested area that was poorly designed for the work that needed to be accomplished. There was inconvenient and inadequate parking, not to mention the fact that the office site had been moved six times since the agency opened and was making preparation for
another move. Calhoun (1962) noted that crowding or high density can be a source of stress in people.

The lack of significant difference between the professional and para-professional groups on all scales is puzzling. The results did not confirm the researcher's hypothesis.

Although ANOVA results indicated that there was no significant difference in the professional and para-professional groups, it is interesting to note results when these groups were viewed in conjunction with their location in the organization. The test scores were very close to the p < 0.008 level. The urban professionals (73.93), for example, recorded higher stress perception than the rural professionals (68.14) and rural para-professionals (65.44). They, however, recorded less stress perception than the urban para-professionals (78.16). In other words, the urban para-professionals recorded more stress perception than the urban professionals, but the rural para-professionals scored less stress perception than the rural professionals.

The para-professionals in the urban worksite may experience a feeling of more responsibility simply as a result of the number of supervisors in the office and
the amount of responsibility to them and other workers in the worksite and patients. Cox (1980) indicated that a major source of role-related demands is that of responsibility, and that there are substantial stresses associated with heavy responsibility.

Shankar and Famuyiwa (1991) concluded in a study that the more inferior the status of workers in organizational hierarchy, coupled with poor social support from management in general, may cause them to perceive the working environment as more stressful.

Hull et al. (1992) concluded there was stress caused by interactional dynamics in the workplace, issues of powerlessness, and organizational problems in a group of para-professionals in a patient care setting. This points to the supposition that factors other than status or position may influence stress perception. The results of this study support the need for further investigation to identify factors in the workplace, coupled with professional category and rural and urban location that produce or reduce stress.

Home care professionals often function in an atmosphere of acute, as well as chronic, stressors. It was expected that the stress inherent in home care professionals, plus their expectations of achievement
and motivation, would have contributed to an increased perception of organizational stress by this unique group.

There may have been no perceived differences between the professional and para-professional groups due to the nature of home care work, in that all levels of workers contribute significantly to the ultimate level of care rendered. If the secretary, for example, fails to do her job correctly, the nursing staff and patient care will suffer because of lack of availability of significant information he/she needs to carry out his/her work. In home health, each person’s job directly affects all other aspects of the operation. Thus, all workers may feel the need to contribute and be productive. When workers feel productive, they feel less stress (Hall et al., 1992).

Poole and Langan-Fox (1992) found no differences in role rewards and stress among managerial and professional women. A study by Hall et al. (1992) supported the likelihood that all women, regardless of occupation, have needs for achievement, progress, involvement, and pride in their work.

Further studies are needed to identify the needs of the para-professional and professional worksites in
home health in light of the fact that some studies have found that stress on workers increases the lower they are in the organization. More studies are needed to confirm the findings of this study, i.e., that in home care in this organization, there is no significant difference in perception of workplace stress between the professional and para-professional groups.

The overall stress score (mean) of 72.00 was obtained by a total of category scores for all respondents divided by the number of respondents. This score, when compared to the NWNL Scale, places this organization in the low stress category (0-81.1). This reflects the overall risk that the organization will suffer from the negative effects of job stress. Although the organization did well according to this study, there must be a constant evaluation and re-evaluation of stress level perception.

Limitations

Despite the many interesting results, this study has some limitations in that it is based on a non-random sample and uses only one home care organization, which limits the generalization of the study to other home health agencies. Nevertheless, given the nature of the tool, generalizations can be made by comparison
to the NWNL Scoring Guide, and therefore other organizations of all types.

Because the rural areas are small, some participants may not have answered the tool with complete confidence, thus skewing the results. This may also have applied to the urban area as well. In future studies, some of the demographic data factors could be re-evaluated and placed into broader categories of age, position, marital status, and location. This would eliminate the fear of recognition or identification by the reviewer.

The agency under study had just made structural changes that encompassed positions in the urban worksite when the tool was presented. The position changes affected personnel in the urban area, and may have been a cause of anxiety.

**Recommendations**

1. Future research using the NWNL test should continue with a study at least every two to three years to continuously assess the organizational climate.

2. Further investigations using the NWNL survey should be conducted using other home health agencies to broaden the population base of the instrument. Different types of home health agencies could include
hospital-based, proprietary, and public agencies in a broader geographical area. It may be useful to determine if different types of organizations and settings are significant factors in the perception of workplace stress.

3. Stress should be measured using other scales to check reliability and validity of stress measures.

Conclusion

The urban worksite recorded more perceived workplace stress than the rural offices. These findings lend support for administrators to advocate using the rural offices as a model for the development of additional offices and restructuring of the urban office. They also should focus on and promote communication, empowerment of employees, improved handling of personal issues, and the equitable allocation of resources and work, particularly in the urban office. Findings from the study should provide the impetus for administrators to continuously study their organization to identify areas of stress and to evaluate the degree of risk they will suffer from negative effects of job stress. This organization can also feel some degree of accomplishment in that the
findings indicate that overall the organization has low risk for suffering negative effects of job stress.

The para-professionals were not found to have significantly higher perceived stress scores than the professionals, as hypothesized. It was interesting, however, to compare the professionals and para-professionals with the addition of the urban or rural factor. This resulted in the finding that the urban para-professionals had higher stress level perception than the rural para-professionals. The rural para-professionals, on the other hand, had lower stress level perception than the rural professionals. The scores were very close to a significant level of p <0.008.

It is reasonable to assume that further studies might be helpful in determining how much the rural and urban factors correlate to the degree of satisfaction of the professional and para-professional work groups. There may be significant factors that can be identified, and thus altered, in the ongoing task of designing a better workplace within the home health industry.
REFERENCES


States see an increase in the number of home care agencies (1993). *Business and Health*, 11(6), 18.


APPENDICES
APPENDIX A

Letter from Peggy Lawless, Research Project Director, Northwestern Life Insurance Company
May 11, 1993

Ms. Sharon Saybe  
Ratides General Hospital 
Home Health 
Box 30101 
211 Fourth Street 
Alexandria, LA 71301-8421

Dear Sharon:


Feel free to call me at (612)342-3751 if you have any questions about the research.

Sincerely,

Peggy Lawless  
Research Project Director  
Employee Benefits Division

PL:par

Enclosures - 6
APPENDIX B

Employee Cover Letter
Dear Home Health/Hospice Employee:

Please take a few minutes to complete the Northwestern National Life Workplace Stress Test. It will take ten minutes or less. Return the completed questionnaire to your immediate supervisor.

Please do not sign your name to the questionnaire. Confidentiality is guaranteed.

Thank you,

Home Health/Hospice Management
APPENDIX C

Demographic Data Sheet
1. Employment Status
   Full-Time
   Part-Time

2. Location of Worksite
   Alexandria
   Bunkie
   Colfax
   Jonesville
   Leesville
   Marksville
   Urania

3. Position
   Professional Management Staff
   Professional Staff
   Clerical Staff
   Aide Staff
   Orderly Staff

4. Age ______

5. Marital Status
   Single
   Married
   Widowed
   Separated
   Divorced
APPENDIX D

The NWNL Workplace Stress Test
The NWNL Workplace Stress Test

Instructions
Thinking about your work site, how strongly do you agree or disagree with the following statements? For each statement, fill in the circle with a pencil under the response that best describes your work site.

<table>
<thead>
<tr>
<th>Response</th>
<th>Disagree Strongly</th>
<th>Disagree Somewhat</th>
<th>Neutral or Don't Know</th>
<th>Agree Somewhat</th>
<th>Agree Strongly</th>
</tr>
</thead>
</table>

SECTION A

1. Management is supportive of employee's efforts.  
2. Management encourages work and personal support groups.  
4. Employees receive training when assigned new tasks.  
5. Employees are recognized and rewarded for their contributions.  
6. Work rules are published and are the same for everyone.  
7. Employees have current and understandable job descriptions.  
8. Management appreciates humor in the workplace.  
9. Employees and management are trained in how to resolve conflicts.  
10. Employees are free to talk with one another.

SECTION B

11. Workloads vary greatly for individuals or between individuals.  
12. Employees have work spaces that are not crowded.  
13. Employees have access to technology they need.  
14. Few opportunities for advancement are available.  
15. Employees are given little control in how they do their work.  
16. Employees generally are physically isolated.  
17. Mandatory overtime is frequently required.  
18. Employees have little or no privacy.  
19. Performance of work units generally is below average.  
20. Personal conflicts on the job are common.  
21. Consequences of making a mistake on the job are severe.
SECTION C

22. Employees expect the organization will be sold or relocated.

23. There has been a major reorganization in the past 12 months.

Response

<table>
<thead>
<tr>
<th>Disagree Strongly</th>
<th>Disagree Somewhat</th>
<th>Neutral or Don't Know</th>
<th>Agree Somewhat</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION D

24. Meal breaks are unpredictable.

25. Medical and mental health benefits are provided by the employer.

26. Employees are given information regularly on how to cope with stress.

27. Sick and vacation benefits are below that of similar organizations.

23. Employee benefits were significantly cut in the past 12 months.

29. An employee assistance program (EAP) is offered.

30. Pay is below the going rate.

31. Employees can work flexible hours.

32. Employees have a place and time to relax during the workday.

33. Employer has a formal employee communications program.

Response

<table>
<thead>
<tr>
<th>Disagree Strongly</th>
<th>Disagree Somewhat</th>
<th>Neutral or Don't Know</th>
<th>Agree Somewhat</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION E

34. Child care programs or referral services are available.

35. Referral programs or day care for elderly relatives are offered.

36. Special privileges are granted fairly based on an employee's level.

37. New machines or ways of working were introduced in the past year.

38. Employer offers exercise or other stress-reduction programs.
SECTION F

37. Work is primarily sedentary or physically exhausting
   ☐  ☐  ☐  ☐  ☐  ☐

40. Most work is machine-paced or fast-paced.
   ☐  ☐  ☐  ☐  ☐  ☐

41. Staffing or expense budgets are inadequate.
   ☐  ☐  ☐  ☐  ☐  ☐

42. Noise or vibration is high, or temperatures are extreme or fluctuating.
   ☐  ☐  ☐  ☐  ☐  ☐

43. Employees deal with a lot of red tape to get things done.
   ☐  ☐  ☐  ☐  ☐  ☐

44. Downsizing or layoffs have occurred in the past 12 months.
   ☐  ☐  ☐  ☐  ☐  ☐

45. Employees can put up personal items in their work area.
   ☐  ☐  ☐  ☐  ☐  ☐

46. Employees must react quickly and accurately to rapidly changing conditions.
   ☐  ☐  ☐  ☐  ☐  ☐

Please check that you have filled in one response for each statement. Thank you for completing the questionnaire.

Copyright 1992 Northwestern National Life Insurance Company. The NWNL Workplace Stress Test was developed by Northwestern National Life for use by American companies and may be reproduced for internal use only.
APPENDIX E

The NWNL Workplace Stress Test Employer Key
The NWNL Workplace Stress Test Employer Key

Instructions
Use this key to tally scores for the test. Place the scoring templates over each employee’s test, and record the corresponding numbers for each statement on the righthand margin of each test. Add the numbers within each category and record the subtotals on the Respondent Tally Sheet.

A. EMPLOYEE SUPPORT AND TRAINING

<table>
<thead>
<tr>
<th>Statement</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Management is supportive of employees’ efforts.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>2. Management encourages work and personal support groups.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>3. Management and employees talk openly.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>4. Employees receive training when assigned new tasks.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>5. Employees are recognized and rewarded for their contributions.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>6. Work rules are published and are the same for everyone.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>7. Employees have current and understandable job descriptions.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>8. Management appreciates humor in the workplace.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>9. Employees and management are trained in how to resolve conflicts.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>10. Employees are free to talk with one another.</td>
<td>4 3 2 1 0</td>
</tr>
</tbody>
</table>

B. WORK CONDITIONS

<table>
<thead>
<tr>
<th>Statement</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Workloads vary greatly for individuals or between individuals.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>12. Employees have work spaces that are not crowded.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>13. Employees have access to technology they need.</td>
<td>4 3 2 1 0</td>
</tr>
<tr>
<td>14. Few opportunities for advancement are available.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>15. Employees are given little control in how they do their work.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>16. Employees generally are physically isolated.</td>
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</tr>
<tr>
<td>17. Mandatory overtime is frequently required.</td>
<td>0 1 2 3 4</td>
</tr>
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<td>18. Employees have little or no privacy.</td>
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</tr>
<tr>
<td>19. Performance of work units generally is below average.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>20. Personal conflicts on the job are common.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>21. Consequences of making a mistake on the job are severe.</td>
<td>0 1 2 3 4</td>
</tr>
</tbody>
</table>
C. ORGANIZATIONAL CHANGE

22. Employees expect the organization will be sold or relocated.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

23. There has been a major reorganization in the past 12 months.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

D. EMPLOYEE BENEFITS

24. Meal breaks are unpredictable.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

25. Medical and mental health benefits are provided by the employer.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

26. Employees are given information regularly on how to cope with stress.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

27. Sick and vacation benefits are below that of similar organizations.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

28. Employee benefits were significantly cut in the past 12 months.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

29. An employee assistance program (EAP) is offered.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

30. Pay is below the going rate.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

31. Employees can work flexible hours.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

32. Employees have a place and time to relax during the workday.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

33. Employer has a formal employee communications program.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

E. PROGRESSIVE PROGRAMS

34. Child care programs or referral services are available.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

35. Referral programs or day care for elderly relatives are offered.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

36. Special privileges are granted fairly based on an employee's level.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

37. New machines or ways of working were introduced in the past year.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]

38. Employer offers exercise or other stress-reduction programs.  
\[ \begin{array}{cccc} 
\text{Disagree} & \text{Disagree} & \text{Neutral or} & \text{Agree} \\
\text{Strongly} & \text{Somewhat} & \text{Don't Know} & \text{Somewhat} & \text{Strongly} \\
\bigcirc & \bigcirc & \bigcirc & \bigcirc & \bigcirc \\
0 & 1 & 2 & 3 & 4 \\
\end{array} \]
### F. JOB DESIGN AND PHYSICAL ENVIRONMENT

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree Strongly</td>
<td>Disagree Somewhat</td>
<td>Neutral or Don't Know</td>
<td>Agree Somewhat</td>
</tr>
<tr>
<td>39. Work is primarily sedentary or physically exhausting</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>40. Most work is machine-paced or fast-paced.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>41. Staffing or expense budgets are inadequate.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>42. Noise or vibration is high, or temperatures are extreme or fluctuating.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>43. Employees deal with a lot of red tape to get things done.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>44. Downsizing or layoffs have occurred in the past 12 months.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>45. Employees can put up personal items in their work area.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>46. Employees must react quickly and accurately to rapidly changing conditions.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
APPENDIX F

Respondent Tally Sheet
Respondent Tally Sheet

Use this sheet to tally up to 10 employee test responses. Make copies as needed to accommodate tallying all employee scores. Number returned questionnaires using three-digit numbers (e.g. 001, 002, 003, etc.) and record the numbers in the space provided in the table in case you need to refer back to a specific questionnaire later.

<table>
<thead>
<tr>
<th>Questionnaire Number</th>
<th>A. Employee Support and Training</th>
<th>B. Work Conditions</th>
<th>C. Organizational Change</th>
<th>D. Employee Benefits</th>
<th>E. Progressive Programs</th>
<th>F. Job Design/Physical Environment</th>
<th>Category Subtotals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondent Scores (number of points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Subtotals</td>
</tr>
</tbody>
</table>

Grand Total
Add lines A through F
APPENDIX G

Work Site Tally Sheet
# Work Site Tally Sheet

Use this form to compile responses from the Respondent Tally Sheets. When completed, this form will provide the overall organizational stress score for your organization.

Number of respondents  \( N = \_
\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total category scores for all respondents*</th>
<th>Divide by no. of respondents</th>
<th>Score for work site</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Employee Support and Training</td>
<td>( _ )</td>
<td>( A + N )</td>
<td></td>
</tr>
<tr>
<td>B. Work Conditions</td>
<td>( _ )</td>
<td>( B + N )</td>
<td></td>
</tr>
<tr>
<td>C. Organizational Change</td>
<td>( _ )</td>
<td>( C + N )</td>
<td></td>
</tr>
<tr>
<td>D. Employee Benefits</td>
<td>( _ )</td>
<td>( D + N )</td>
<td></td>
</tr>
<tr>
<td>E. Progressive Programs</td>
<td>( _ )</td>
<td>( E + N )</td>
<td></td>
</tr>
<tr>
<td>F. Job Design/Physical Environment</td>
<td>( _ )</td>
<td>( F + N )</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>( _ )</td>
<td>Total + ( N )</td>
<td></td>
</tr>
</tbody>
</table>

* This number represents combined category totals from all respondent tally sheets.
The NWNL Workplace Stress Test Instructions

Asking your employees to complete The NWNL Workplace Stress Test can be an important first step in addressing the growing problem of workplace stress. The questionnaire is designed to give management an accurate profile of the factors in your organization that reduce or produce stress in the workplace.

Note: Organizational development experts recommend that you do not conduct The NWNL Workplace Stress Test unless your management is willing to address stress-related problems and make changes to reduce stress for workers.

Drawing a sample

1. Draw a representative sample of employees in your work site. This can be a sample of employees from your entire company, a specific work group or an individual work site. Results are most meaningful when applied to a single work site where characteristics are more uniform.

   a. Work sites with 100 or fewer employees: Distribute questionnaires to all employees.
   
   b. Work sites with more than 100 employees: Systematically select 100 employees. For example, if your company has 300 employees, select every third name for your sample. You can draw a larger sample if desired; 100 employees is the minimum number to sample for adequate analysis in large organizations.

Distributing questionnaires

2. Assemble packets to distribute to employees that include:

   □ A cover memo explaining the purpose of the questionnaire (see enclosed sample)
   
   □ The NWNL Workplace Stress Test
   
   □ Pencils, if not readily available in the work site
   
   □ A return envelope to ensure confidentiality of answers

Tallying results

3. Collect completed questionnaires. Allow sufficient time for employees to complete and return the questionnaires. It’s best to set a tight deadline for return of responses, such as three to five days, but the time period can vary, depending on the work site situation.
4. Number returned questionnaires, using a three-digit code (e.g. 001, 002, 003, etc.) for ease in tallying and follow-up.

5. Calculate the results.

☐ Use the scoring template to calculate the scores for each respondent (enclosed).

☐ Record scores for each respondent on a Respondent Tally Sheet (enclosed).

☐ Calculate the average score for the work site using the Work Site Tally Sheet (enclosed).

Addressing issues
6. Identify actions that management can take to reduce workplace stress.

☐ Use the results of The NWNL Workplace Stress Test to identify problem areas.

☐ Consult workplace stress experts to help develop a plan for reducing and preventing workplace stress. (See list of stress management resources, page 7.)

Communicating findings
7. Share results of The NWNL Workplace Stress Test with employees.

☐ Communicate the questionnaire findings to employees in writing and in person.

☐ Inform employees of steps management will take to reduce workplace stress.

☐ Let employees know how your organization will monitor the success of stress-reduction efforts, e.g., follow-up surveys or employee focus groups.

Test categories
The 46 statements on The NWNL Workplace Stress Test are separated into sections A, B, C, D, E and F. The names for these sections — Employee Support and Training, Work Conditions, Organizational Change, Employee Benefits, Progressive Programs, and Job Design and Physical Environment — are listed on the employer key for the test. The section names are not included on the test to avoid influencing employees’ responses.

The statements are grouped into these categories because the factors in each are closely related, according to NWNL’s research. The categories will help you zero in on the causes of stress within your organization. You will be calculating a score for each category to find out where your company falls on a scale of low to high stress. Refer to the enclosed NWNL Workplace Stress Scoring Guide for more information.