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Hardiness, Stress, and Use of Ill-Time Among Nurse Managers: Is There a Connection?

Executive Summary

- Self-reported stress and hardiness measures were analyzed in the context of sick time among a sample of 16 nurse managers from a tertiary hospital.
- Managers reporting high hardiness and low stress used 35% fewer sick hours than their low-hardiness, low stress counterparts.
- Similarly, managers reporting high hardiness and high stress used 57% fewer sick hours than those reporting low hardiness and low stress.
- However, an unexpected finding emerged, managers reporting high hardiness and high stress used 33% fewer sick hours than the high hardiness and low stress group.
- These findings suggest the opportunity to cultivate hardiness through hiring practices, coping skill development, and supportive workplace policies as a means of insuring continuity in leadership.

IT COMES AS NO SURPRISE THAT nurses experience more psychological distress than the general population (Harrison, Loiselle, Duquette, & Semenic, 2002). Among nurse managers, intense job-related demands often result in stress affecting job performance and personal well-being. Nurse managers are expected to do more with fewer resources while maintaining quality standards, and are expected to achieve contented staff who neither burnout nor turnover. Consequently, when seeking target populations in which to study stress and mediating variables, nurse managers were deemed an ideal group.

Stress

According to Selye (1965), individuals encounter situations both physiological and psychological that do not follow the preferred path, thus creating stress. Considered the father of stress research, Selye regarded stress as positive (*eustress*) when it energizes and brings individuals to heightened awareness and performance capabilities. Selye considered *eustress* a necessary part of life that could produce planned change, increased productivity, and personal growth. Conversely, negative stress (*distress*) occurs when a person's capacity to use stress positively is overwhelmed. *Distress* is viewed as negative because it depletes energy reserves and taxes the maintenance and defense of body systems, potentially causing harm to both physical and psychological health (Selyle, 1965).

Job-Related Stress

In addition to psychological or emotional involvement, job-related stress has been linked to negative outcomes of illness, absenteeism, performance deterioration, and decreased productivity (Benton, 2000; Shader, Broome, Broome, West, & Nash, 2001). Physiologically, the complex associations between stress reactions and

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changes in the immune system may lower resistance to infections (Kemeny & Gruenewald, 1999), and, among women, predispose to various severe illnesses (Kiecolt-Glaser & Glaser, 1988; McCain & Smith, 1994). Nowack (1991) found that over a period of a year, perceived stress significantly contributed to individual predictions of illness frequency and severity. Stress leads to illness and therefore absenteeism, which results in increased costs, loss of expertise, and reduced continuity of leadership. Among nurses, stress affects job satisfaction, commitment to the organization, and turnover (Irvine & Evans, 1995; McNeese-Smith, 1998; Parsons, 1998; Shader et al., 2001). In contrast, Simmons and Nelson (2001) found a significantly positive relationship between *eustress* (hope) and perception of nurses' health. Ruggiero (2005) reports that emotional stress and depression are significant influences of job satisfaction among nurses. With job satisfaction linked to intent to leave (Larrabee et al., 2003) and higher quality of care and better patient outcomes (Aiken, Smith, & Lake, 1994), dealing with stress has enormous benefits to organizations as expenses are reduced and quality of work life is improved (Judkins & Furlow, 2003).

Hardiness

Twenty-five years after Selye's initial work on stress, Kobasa (1979) focused on what she called the subtle points in his findings in an attempt to isolate factors that mitigate negative impacts of stressful events. In Kobasa's determination, persons who experience high degrees of stress without becoming ill have a personality structure differentiating them from those who become sick under stress. Kobasa called that personality structure *hardiness*.

Kobasa, Maddi, and Kahn (1982) believed that hardy persons possess three major characteristics: control, commitment, and challenge. Hardy persons recognize they have options to exercise judgment and make good decisions (*control*), opportunities to become actively involved in various life activities (*commitment*), and abilities to perceive change as beneficial (*challenge*) (Pollock, 1989). When faced with a stressful life event, hardy persons will attempt to change or modify events (control) into a challenge consistent with life's purpose (commitment) that results in learning and personal growth (challenge) (Bigbee, 1985).

Hardiness and Stress-Related Illness

Various studies have explored the benefits of a hardy personality and its positive relationship to mediating stress and reducing illness by enhancing the immune response (Dreher, 1995; Kemeny & Laudenslager, 1999). Bartone, Ursano, Wright, and Ingraham (1989) concluded that high hardy emergency assist workers remained healthy while facing long periods of stress. In her study of upper and middle-level executives with comparable levels of stress, Kobasa (1979) found that highly stressed executives with low illness rates exhibited more hardiness than highly stressed executives who exhibited a high rate of illness. Similar findings were described among full-time corporate employees and university students (Soderstrom, Dolbier, Leiferman, & Steinhardt, 2000). Following hardiness training, managers in a utility company exhibited increased hardiness and job satisfaction and decrease in illness severity and self-reported strain (Maddi, Kahn, & Maddi, 1998). Further, these authors reported that hardiness can be learned and that increasing hardiness was more efficacious than relaxation/meditation or passive listening.

Nurses, Stress, and Hardiness

Supporting Selye's (1965) eustress to distress continuum, certain stressed nurses and nurse managers don't become ill as often as their counterparts. Why? Perhaps the answer is hardiness. When facing stressors, high-hardy nurses would be more likely to feel committed to the work situation, experience less burnout, and are less likely to give up or resign (Larrabee et al., 2003). Among nurses and nurse managers, Fusco (1994) and Judkins (2001) found significant positive correlations between hardiness and coping styles that attempt to solve or alter stressful situations rather than avoid or escape. Hardy nurses would be more likely to feel they had some level of control over the stressful situation, feel committed to the work situation, experience less burnout, and are less likely to give up or resign (Larrabee et al., 2003). With the presence of hardiness significantly related to one's perception of health stressors and coping strategies (Pollock, 1989), high-hardy nurses would potentially be ill or absent less frequently, ultimately reducing agency costs.

Hardiness and Nurse Managers

Clearly, in today's health care market, nurse managers shoulder enormous responsibility for agency success or failure as they influence use of resources and patient outcomes (Judkins, 2004). Representing the largest volume of employees, nurse managers play essential roles in providing input and leadership for managing change, morale, retention, and direction of staff attitudes toward changing organizational structures (Mathena, 2002). Unfortunately, despite high levels of personal achievement, many come to the role of nurse manager with little or no managerial experience, having been promoted because of exemplary nursing skills, not because of management expertise. Despite role orientation, the majority of nurse managers are not prepared for the demands on time, energy,

and inner resources needed for their positions (Keane, DuCette, & Adler, 1985). Thus, hardiness in managers could prove invaluable. Hardy managers would know that they possess adequate *control* to help staff react to a situation; not with a sense of impotence, but with energy and creativity. Strongly *challenged* managers could capture the energy of innovation and change and impart that energy to staff. C*ommitted* managers could engage staff as co-creators of the future with an active hand in their destinies (Porter-O'Grady, 2003).

Study Design and Sample

This descriptive study was undertaken to investigate relationships between hardiness, stress, and use of ill time among nurse managers. A convenience sample of 16 nurse managers from a large tertiary hospital in north Texas was used.

Instrumentation

Managers filled out a three-part questionnaire consisting of demographics, the Hardiness Scale (HS) (Bartone et al., 1989), and the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983) to determine stress levels and the degree of hardiness. Further, using the 6-month period prior to administering the survey, data were gathered concerning use of unscheduled absences related to illness.

The PSS is a 14-item tool in which the situations in one's life are appraised as stressful. Response is to a five-point Likert scale ranging from 0 (strongly disagree) to 4 (strongly agree). Higher scores indicate higher levels of stress. The alpha reliability coefficient is 0.85 (Cohen et al., 1983).

The HS is a 45-item Likert-type instrument designed to measure dispositional resilience. The HS is composed of three subscales: commitment, control, and challenge. Associations are computed with composite as well as subscale scores. As a composite, HS has an alpha reliability coefficient of 0.85 with subscales reported as 0.62 (commitment), 0.66 (control), and 0.82 (challenge) (Bartone et al., 1989).

Table 1.
Range and Means of Stress, Hardiness, and Ill-Time Hours

	Range	N	M (sd)
Hardiness (Max = 135)	97-112 87-96	9 6	96.1 (8.3)
Stress (Max = 56)	34-40 28-33 <28	5 9 1	33.1 (3.9)
Ill-time hours	0-57.5	15	23 (14.4)

Table 2.
Percentage Use of Ill-Time by Hi/Lo Stress and Hardiness Categories

Hardiness (Hi = >97) (Lo = <97)	Stress (Hi = >34) (Lo = <34)	Ill-Time (hours)	Difference	Percent of Difference
Hi Lo	Lo Hi	20.8 28.6	-7.8	27%
Lo Hi	Lo Lo	32.3 20.8	-11.5	35%
Hi Lo	Hi Hi	13.7 28.6	-14.9	52%
Hi Hi	Lo Hi	20.8 13.7	-6.9	33%
Lo Hi	Lo Hi	32.3 13.7	-18.6	57.6%

Findings

Of the 16 original surveys received, one was eliminated as an outlier of reported ill time. Of the remaining 15 participants, ages ranged from 40 to 60 years (M=49.5[6.2]) with the majority (60%) being married. An equal number of managers were black and caucasian (44% each) with 12% Asian. Gender included four males and 11 females. Basic degrees in nursing were reported as ADN (1), BSN (9), and MSN (5).

Present study alpha coefficient reliabilities were 0.69 for the HS total score and 0.53, 0.60, and 0.63 for subscales commitment, control, and challenge respectively, which were slightly below those found by Bartone et al. (1989) and may result from the small sample size. The alpha coefficient for the PSS was low at 0.53 and again may result from small sample size and small number of survey items. Results are reported, but generalizations should be made with caution.

When hardiness and stress total scores were examined for high and low groups, 100% fell into moderate to high categories (see Table 1). Consequently, there was not sufficient spread in scores to justify using median split *t*-test analysis to determine significance between variables. Basic descriptive comparisons were then used to evaluate importance between couplets of hardiness and stress and use of ill-time hours (see Table 2.). For reporting purposes, hardiness and stress scores were designated as lo (moderate catego-

ry) and hi (high category).

Among this sample, ill-time ranged from 0 to 57.5 hours (M = 23[14.4]). Of the 15 participants, those in the Hi Hardy-Lo Stress group used 35% less ill-time hours than those in the Lo Hardy-Lo Stress group and 27% less than the Lo Hardy-Hi Stress group (see Table 2). The Hi Hardy-Hi Stress group used 57.6% less ill-time than the Lo Hardy-Lo Stress group and 52% less than the Lo Hardy-Hi Stress. Of interest, the Hi-Hardy-Hi-Stress group used 33% fewer ill-time hours than the Hi Hardy-Lo Stress group.

Discussion

Findings that high-hardy nurse managers use less ill-time than those low-hardy are similar to Kobasa (1979) and Green and Nowack (1995), who found hardiness to be a significant mediator between stress-associated illness frequency, severity, and absenteeism. Findings are also congruent with hardiness studies among nurses linked to stress-associated variables of burnout (Simoni & Paterson, 1997), job satisfaction (Larrabee et al., 2003), and issues of retention, turnover, and absenteeism (Martin, 1995; Noble, 1993). In a related study among women, Kenney and Bhattacharjee (2000) reported high levels of physical symptoms of stress when low hardiness was present, a relevant finding considering nursing is a primarily female profession. Corroborating findings also come from Sortet and Banks (1996) who determined that when stress and burnout are experienced, staff nurses miss more days from work and are less productive. Hence hardiness may help mitigate the connection between stress and the unwanted use of ill-time.

An unexpected finding was in the group reporting high hardiness and high stress. Despite high stress scores, these high-hardy managers used less ill-time than those low-hardy. One possible explanation may be that, among this group, hardiness acted as a strong mediator of high levels of stress thus creating less need to use ill-time. This explanation has some plausibility when one considers that the two combined Hi-Hardy groups used 19 hours less of ill time than the two Lo-Hardy groups. Although stress is inherent in nursing and in managing nurses, high-hardy managers appear better able to cope with stressors and require fewer ill-time hours than those low-hardy. This finding may be useful considering absences from work produce multiple problems, the least of which is disruption in leadership and continuity of care.

Nursing Implications

Helping workers to deal with stress by increasing hardiness has enormous benefits to organizations both financially and in quality of work life. When equating average hourly rates of nurse managers ($31.45) ("What should you be making?" 2004) to costs associated with ill-time hours, avoidable expenses to health care organizations are vast. Even the best manager is not as effective if (s)he suffers from frequent absences, and these types of absences send a less than desirable message to staff concerning personal use of ill-time. Managers in attendance can supply guidance and leadership with a continuity that managers with absentee problems find impossible to provide. Moreover, role modeling of desirable behaviors can only be accomplished if the manager is present. Promoting hardiness among managers and staff may provide benefits to both managers and staff.

How is hardiness promoted? Instituting agency policies is a first step in establishing an effective, high-hardy work environment. Policies such as collaborative practice, self-scheduling, and shared governance empower employees to act and give *teeth* to the importance of the actions that must follow (Judkins & Furlow, 2003). By increasing hardiness, an environment may be created that increases job satisfaction among staff, thus reducing turnover costs with subsequent increase in productivity.

Cultivating hardiness might also take place through staff education since studies have reported improved hardiness scores following stress-coping, hardiness-promoting activities among nurse managers (Judkins & Ingram, 2002), health care managers (Rowe, 1998), business managers (Maddi, 1987), and nurses (Tierney & Lavelle, 1997). However, sustained high hardiness scores were only obtained when the training was reinforced over a period of time (Judkins, Reid, & Furlow, in press; Maddi, 1987; Rowe, 1999). Thus, using ongoing educational offerings to increase hardiness should be strongly considered by any organization interested in cultivating work environments that reduce job-related stress and associated negative effects (Judkins & Ingram, 2002).

Hardiness might also be advanced by assessing hardiness levels of new or potential nurses and managers to determine those high in hardiness and those at risk for high stress (Judkins, 2001). Attention could then be focused on individuals needing educational interventions relative to stress management and adaptive coping strategies.

Conclusion

Nursing is "so stressful that many are leaving the field for less exhausting careers" (Collins, 1996, p. 2). As a profession we must find ways of coping and stem the loss of nurses. Gatekeepers in this effort are nurse managers who have direct interaction with staff responsible for providing patient care. Managers must be present to handle problems effectively or to help staff cope with situations before problems are exacerbated. It is imperative that managers be available to guide, direct, and sup-

port staff, but these functions are difficult to accomplish with the manager absent. We must keep good managers and keep them at work. Hardiness might not be a panacea for all problems, but many of the trends found in the current study are promising and suggest that hardiness may make a positive difference in affecting ill-time used by nursing managers.

Hardiness may not be a perfect concept or lend itself to being measured with absolute accuracy (Kleinman, 2003), but the trends in this study suggest that hardiness is an intriguing avenue for continued exploration. However, exploration with larger sample groups is recommended to help overcome problems associated with insufficient spread in survey scores and potential reliability issues. **$**

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