

Hardiness Training Among Nurse Managers: Building a Healthy Workplace

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abstract

Background: This exploratory study investigated development of a model hardiness training program to determine whether stress could be reduced and hardiness could be increased and sustained among nurse managers.

Method: Thirteen nurse managers at an urban hospital completed pretests for hardiness levels and underwent initial hardiness training for 2.5 days. Posttests were completed after initial training, after the 6 weekly sessions, and after 6 and 12 months.

Results: Changes in hardiness scores between pretest and the first posttest were significant ($p < .05$). Scores after the third posttest were decreased for the subscale control but were unchanged for subscales commitment and challenge.

Conclusion: Findings suggest that the use of a hardiness training program and intermittent follow-up can be effective in increasing and sustaining hardiness levels in nurse managers and may have a positive impact on staff turnover rates.

Healthcare administrators are acutely aware of the critical impact nurse managers have on patient outcomes, customer relations, productivity, and regulatory compliance (Ridenour, 1996). However, nurses typically enter the role of manager with few or no managerial skills because they are promoted based on their expertise as clinicians. Consequently, they are unprepared for demands to problem solve, mentor new employees, maintain financial compliance, and perform other related responsibilities required of them in today's healthcare environment. These intense demands on time, energy, and personal resources (Kalo & Jutte, 1996) are major sources of stress, often resulting in significant negative effects on job performance and personal well-being. Furthermore, cost factors relative to stress are a chief concern for employers when translated into absenteeism, reduced productivity, lowered job motivation, decreased

quality decision making, and loss of skilled nurses (Lambert, Lambert, & Yamase, 2003). Finding ways to reduced stress and create a healthy work force are vitally important in health care today.

BACKGROUND

Hardiness

During the past 20 years, the personality construct hardiness has emerged as an important factor in buffering, or offering resistance toward, the effects of stress (Maddi, 1999). Hardiness studies have found that individuals possessing hardiness traits do not give up easily under pressure, become ill less often, and have the ability to behave in an adaptive manner when stress is experienced (Kobasa, Maddi, & Kahn, 1982). Hardiness, as conceptualized by Kobasa (1979), is a set of beliefs about oneself and the world manifested as commitment, control, and challenge (Maddi & Kobasa, 1984). Hardiness protects against stress in two ways: it alters perceptions of stress and mobilizes effective coping strategies. Hardy individuals are said to exhibit beliefs that stressors are changeable and that they can influence what is happening around them with a willingness to act on that belief (control).

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Employees with a high personal locus of control feel they are in charge of their own destiny. They believe events transpire as a result of personal actions, not those of co-workers or the organization. Because they feel more in control, employees are not overwhelmed by occurring events. Hardy individuals possess a deep involvement in life's activities and believe that what they are doing is interesting or important (commitment). They engage others in problem solving and make the workplace a better, more nurturing environment for employees.

Challenge implies change is positive and that if the status quo is maintained people will become stagnant. Challenged employees tend to view changes, pressures, and disruptions, however painful, as things to learn and grow from personally (Khoshaba & Maddi, 1999). Employees with high hardiness levels perceive stress in a positive way rather than a negative way and are able to develop effective coping strategies. They look at the challenges we face in healthcare delivery as opportunities rather than problems. They also see themselves as being empowered to effect changes rather than simply being affected by changes.

Hardiness, Nurses, and Managers

According to research completed by van Servellen, Topf, and Leake (1994), nurses who have high hardiness levels have decreased work-related stress, less emotional exhaustion, and fewer health problems. Other research points to a decrease in burnout for those nurses who possess high hardiness levels (Boyle, Grap, Younger, & Thornby, 1991), thus encouraging more experienced nurses to remain in nursing. Further, Larrabee et al. (2003) report higher psychological empowerment among nurses with high hardiness levels, with empowerment being a strong predictor of job satisfaction.

In previous studies among nurse managers, Judkins (2001) found that higher levels of hardiness were associated with lower levels of stress and higher levels of problem solving and coping skills. Hardiness among nurse managers has been linked to decreased burnout, turnover, and absenteeism (Collins, 1996; Rich & Rich, 1987; Simoni & Paterson, 1997; Sortet & Banks, 1996). Similarly, McNeese-Smith (1999) concluded that managers cultivating characteristics of hardiness tended to have employees who reported significantly higher levels of job satisfaction, productivity, and organizational commitment, and exhibited fewer negative effects of stress.

Therefore, promoting hardiness among nurse managers may decrease burnout and improve job satisfaction (McGoldrick, Menschner, & Pollock, 2001), staff retention, and patient outcomes (Shullanberger, 2000). With hardiness having such a positive effect among staff and

managers, advancing hardiness in the workplace seems a reasonable course of action.

Hardiness Training

Several studies have reported that hardiness can be taught. For example, Tierney and Lavelle (1997) used a training module to educate nurses about the benefits of having high hardiness levels, and Judkins and Ingram (2002) used a self-paced module approach among nurse managers. In each case, hardiness scores increased significantly. Similar results were found by Maddi (1987) and Rowe (1998), but these authors also found that for hardiness scores to be sustained, periodic reinforcement is needed over an extended period of time (6 to 24 months). These studies indicate that effects of job-related stress tend to be mediated among individuals with high hardiness levels and that hardiness can be learned.

However, further investigation was needed to confirm the benefits of hardiness training for nurse managers and to examine the relationships between hardy managers and critical indicators such as staff turnover rates. Reducing staff turnover in any healthcare agency is imperative because the cost to replace just one medical or surgical nurse is approximately \$92,000, and the costs to replace a specialty nurse can reach \$145,000 (Atencio, Cohen, & Gorenberg, 2003). Replacement costs may be associated with recruitment and orientation, loss of experienced nurses, periods of short staffing accompanied by overtime, or use of agency staffing (Blegen, Vaughn, & Goode, 2001; McConnell, 1999). Hence, we chose to test a model hardiness training program (HTP).

THE STUDY

The Model

This exploratory study evaluated the short- and long-term effects of a longitudinal model HTP among nurse managers. The HTP was developed through a grant provided by The University of Texas at Arlington and Sigma Theta Tau, and testing began in June 2003. The model was tested at a nonprofit tertiary care hospital in the Dallas/Fort Worth, Texas, area.

After a review of the literature, key content for the HTP was determined to include hardiness, stress management, adaptive coping strategies, healthy communication, conflict management, and problem-focused resolution. Further literature examination (Maddi, 1987; Rowe, 1999) revealed that the HTP should consist of initial training with follow-up sessions over a 6- to 24-month time period. Consequently, an 18-month time frame was selected for this pilot study.

TABLE 1
DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS (N = 12)

| Characteristic | No. (%) |
|----------------------------|---------|
| Age (y) | |
| 37 to 49 | 5 (42%) |
| 50 to 59 | 5 (42%) |
| > 59 | 1 (8%) |
| Missing | 1 (8%) |
| Marital status | |
| Single | 2 (17%) |
| Married | 8 (66%) |
| Divorced | 2 (17%) |
| Highest educational degree | |
| Associate in nursing | 2 (16%) |
| Baccalaureate in nursing | 5 (42%) |
| Masters in nursing | 5 (42%) |
| Years in management | |
| 1 to 3 | 3 (25%) |
| 4 to 7 | 1 (8%) |
| 8 to 12 | 3 (25%) |
| > 12 | 5 (42%) |

Method

Due to the exploratory nature of the study, short- and long-term effectiveness were assessed using measures of hardiness and stress in a pretest/posttest design. In addition to demographic information, hardiness was measured using the Hardiness Scale (Bartone, Ursano, Wright, & Ingraham, 1989). The Hardiness Scale is a third generation tool with a 45-item scale containing three subscales: commitment, control, and challenge. Responses were given on a 4-point Likert-type scale, ranging from 0 (never) to 3 (very often), with high scores indicating higher hardiness. Cronbach alpha reliability coefficients have been demonstrated at .62, .66, and .82 for the subscales commitment, control, and challenge, respectively. As a composite summated scale, the Hardiness Scale has shown an alpha level of .85.

Stress was assessed using the Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983), which is a 14-item scale designed to measure the degree to which respondents find their lives unpredictable, uncontrollable, and overloaded. Responses were given on a 5-point Likert scale, ranging from 0 (never) to 4 (very often), with higher scores indicating higher levels of stress. The average Cronbach alpha coefficient reliability was .85.

Reliability was found to be consistent between male and female respondents and among age differences.

The HTP was provided to participants over multiple sessions with measures of the Hardiness Scale and the PSS taken in a pretest/posttest format. Managers first completed the pretest and attended an intensive training session over 2.5 days, which was followed by a posttest (posttest 1). They then attended 2-hour sessions once a week for 6 weeks, followed by a second posttest after the sixth session (posttest 2). Additional 2-hour sessions were conducted at 6 and 12 months, again followed by posttests after each session (posttests 3 and 4, respectively). Original plans to extend HTP training to 18 months were abandoned due to loss of subjects and unmanageable situations occurring within the organization.

HTP sessions included key content previously mentioned and the use of real-life case scenarios. We concentrated on problem-resolution skills and paid specific attention to the identification of core problems and the reframing of the issues within the scenarios. By using a reframing focus, locus of control was concentrated internally and stress-provoking situations became less focused on reducing the stress and more focused on resolving the problem.

Turnover rates were selected by the Chief Nursing Officer as the desired matrix indicator to examine in relation to hardiness. As part of the training process, participants were asked to evaluate the overall HTP for appropriateness of content, length of time, speaker, and method of delivery.

Findings

The program began with 13 participants, but one was eliminated from analyses because of extreme outlier scores on hardiness, leaving 12 participants. Data from four men and eight women were analyzed. Participants were between 37 and 61 years old, had educational levels ranging from diploma in nursing to master's preparation, and had held a management position for a median of 10.7 years (Table 1).

Hardiness Scale Reliability coefficients for this study according to Cronbach's alpha were .50 for pretest, .88 for posttest 1, .74 for posttest 2, and .72 for posttest 3. These are comparable to or slightly below those reported by others (.78, .60, .05, and .61, respectively) (Bartone et al., 1989; Maddi & Hess, 1992; Okun, Zandra, & Robinson, 1988). Split-half reliabilities were used for the PSS due to the small number of PSS items and respondents. Most current sample PSS reliabilities were consistent with those found among adults and college students by Cohen et al. (1983), indicating moderate reliability of this measure. However, data analysis of participant scores in posttest 2 revealed inconsistent responses by

TABLE 2
RESULTS OF PAIRED SAMPLES *t* TEST

| Instrument | Mean (SD) | | | | | | |
|-----------------|------------|----------|------------|----------|------------|----------|------------|
| | Pretest | <i>t</i> | Posttest 1 | <i>t</i> | Posttest 2 | <i>t</i> | Posttest 3 |
| Hardiness scale | | | | | | | |
| Composite | 1.99 (.12) | -3.3* | 2.12 (.19) | -.60 | 2.10 (.20) | 2.3 | 2.04 (.02) |
| Commitment | 2.34 (.16) | 1.9* | 2.27 (.28) | .52 | 2.49 (.27) | .80 | 2.44 (.38) |
| Control | 1.97 (.18) | -2.4* | 2.11 (.26) | .08 | 2.11 (.27) | 5.2 | 1.92 (.24) |
| Challenge | 1.67 (.19) | -1.8* | 1.74 (.17) | .68 | 1.71 (.17) | -1.5 | 1.77 (.14) |
| Stress scale | 2.43 (.23) | .79 | 2.28 (.21) | .20 | 2.36 (.24) | -1.1 | 2.47 (.31) |

**p* < .05.

two individuals, posing a challenge with internal consistency across items for this testing. Should the project be repeated with similar findings, a discussion with participants may prove beneficial to determine what, if any, difficulties existed in answering questionnaire items.

Paired samples *t* test results for hardiness and stress are summarized in Table 2. There was a significant increase (*p* < .05) in hardiness scores from pretest to posttest 1, with scores sustained at posttest 2 indicating sustained changes in hardiness scores. Although hardiness scores significantly decreased from posttest 2 to posttest 3 (*p* < .05), the primary contributor to this decrease was subscale control, with no changes evidenced in subscales commitment and challenge. Results from the 12-month intensive session (posttest 4) are not included in the final reporting because two of the managers left the organization, causing extreme skewing of data. There were no significant changes in stress scores from pretests to posttests, although scores indicated respondents were moderately stressed.

Based on percentage of change between 6-month time frames, the HTP appeared to have had some level of influence on turnover rates. In 21 nursing areas represented by the 12 nurse managers, 13 areas evidenced an average 63% decrease in turnover rates during the 6-month period following the training (June to December) when compared to the 6 months prior to the HTP (January to June). By comparison, hardiness scores of the 12 nurse managers were increased and sustained in 7 of 13 areas.

Of special note was the observed, unplanned transformation of the group from one of individualism to one of cohesion and willingness to share ideas. Initially, using case studies supplied by the trainer, participants were asked to problem solve each case study based on resolution strategies presented during the HTP. By the middle of the 6 weekly sessions, participants became ea-

ger to share their own experiences and to ask for group assistance as they worked through substantially difficult problems. By the end of the sessions, the managers were actively consulting with one another and offering strong emotional and psychological support. This process continued during the ensuing 6 through 12 months of the HTP as these managers demonstrated remarkable growth as individuals and as peers. For example, one manager sought advice about a troublesome employee. Having received sound advice during the HTP, she then asked a peer to witness and critique a counseling session with an employee, something she admitted she would never have done prior to the HTP.

In terms of evaluating the HTP, the majority (98%) of attendees ranked the program as excellent in both content and delivery. They expressed intense satisfaction with learning to resolve conflict assertively, the use of "real life" situations to build problem resolution skills, how to work with peers more effectively, and how to use one another as resources.

DISCUSSION

This study examined whether a hardiness training model could increase hardiness levels among nurse managers. It also examined the effect of follow-up training (reinforcement) on the participants. Results indicate the HTP had some measure of influence on hardiness and in sustaining the levels over a 6-month period.

Findings from this study are consistent with other studies. Judkins and Ingram (2002) and Tierney and Lavelle (1997) found use of an educational offering to be effective in increasing hardiness levels. Further, using a longitudinal approach, Maddi (1987) and Rowe (1999) reported sustained increased hardiness over 6 to 24 months following periodic training sessions. However, based on events of this study, appropriate length of time to continue training

key points

Hardiness Training

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- 1 Managers with high hardiness levels are more committed to the organization, are more involved in workplace issues, and are better able to approach change positively than managers with low levels of hardiness.
- 2 Nurse managers are highly susceptible to workplace stressors, but hardiness training programs can help them develop skills to cope with the many demands on their time and energy.
- 3 Hardiness training programs can improve the workplace by increasing job satisfaction and reducing frustration, burnout, and turnover among nurses.

sessions may require intermittent evaluation to avoid data corruption with loss of subjects. We would recommend a minimum of 6 months' follow-up training to solidify hardiness substance and to reinforce hardy behaviors.

Relative to the decrease in posttest 3 hardiness control scores, results may indicate these nurse managers were sensing less control over their work environment. Nurse managers experiencing high control typically see themselves involved in workplace events and able to participate in or affect their direction (Judkins & Ingram, 2002).

During the study period, pressures within the organization may have created enormous stressors considered by the managers as outside their locus of control. These pressures included an interim Chief Executive Officer, on-site consulting firms, extreme financial difficulties, and possible sale of the hospital (the facility ultimately closed). Findings of continued moderate stress levels throughout the training support these suppositions. However, despite these pressures, stress levels did not increase. With sustained increase in challenge and commitment scores, participants may have felt they had a strong sense of purpose and direction, and they were unwilling to give up under pressure (commitment) (Kobasa, 1979) and were able to find fresh or innovative ways to solve problems or change practices (challenge) (Judkins & Ingram, 2002).

In terms of capturing stress, although the PSS contains only 14 items, it has been found to reliably capture stress levels among larger sample sizes. In the future, using a stress scale with a larger number of items may prove more helpful among small sample sizes such as the one in this study.

The transformation from singleness to group solidarity was not planned as an area of study but became a major finding of the study. Because high hardiness levels enable individuals to transform difficult life events into opportunities for increased meaning in life (Schwab, 1996), the HTP appeared to be successful in providing the knowledge necessary to promote hardiness among this group. This transformational process also had some bearing on reducing turnover among staff within the nursing units represented. When managers have high hardiness levels, staff members are empowered to generate ideas that make a difference and are inspired to implement new practices (Pappas, 1995).

As organizations strive to become hardy, they will attract and retain a higher proportion of hardy individuals (Maddi, 2002). Thus, there is potential to positively impact patient outcomes when staff is challenged to higher levels of problem solving and commitment. With hardiness linked to increased job satisfaction and commitment to the organization (Larrabee et al., 2003), the potential for reducing costs associated with turnover rates could prove invaluable to health-care organizations.

CONCLUSION

Nurse managers are highly susceptible to workplace stressors because of fierce demands on time and energy. Hardiness has been linked to diminished effects of stress and improved problem solving and coping skills (Judkins, 2001). This study described a longitudinal training model that may be effective in increasing and sustaining hardiness when follow-up training and reinforcement are used. Using a longitudinal HTP may contribute to diminished costs associated with stress (Maddi, 1987; Rowe, 1999), burnout (Rich & Rich, 1987), productivity (Noble, 1993), and absenteeism among managers and, subsequently, staff (Lambert et al., 2003).

Hardiness training may improve workplace culture as staff and managers feel increased job satisfaction and may reduce vacancies as staff feel empowered and committed to the organization (Larrabee et al., 2003; Simoni & Paterson, 1997). Hardiness training among all employees can create a work environment that will attract and retain staff (Judkins & Furlow, 2003). Ultimately, nurses with higher levels of hardiness may be less likely to experience burnout, frustration, and illness, thus allowing them to remain in the nursing profession.

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