

Decreasing Stress Among Nurse Manager: A Long-Term Solution

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ABSTRACT

Background: A self-paced learning module was developed and tested to determine whether knowledge relative to stress and hardiness could be increased among nurse managers.

Method: The module was administered to 31 nurse managers in rural hospitals in east Texas.

Findings: Using pretest and posttest module questionnaires and the Hardiness Scale, changes in mean scores were significant at the .001 level for

both instruments. These findings indicated the self-paced learning module had a significant effect on participants' understanding of stress and coping with subsequent increase in hardiness levels.

Conclusion: Use of an education module can be effective by increasing knowledge of stress and hardiness, and increasing hardiness levels. Through increased hardiness among managers and staff, organizations can expect higher levels of commitment, more involvement of staff in workplace issues, and greater receptivity to changes in work environment.

Health care administrators are acutely aware of the impact nurse managers have on patient outcomes, customer relations, productivity, and regulatory compliance (Ridenour, 1996). However, as nurse managers struggle to maintain quality patient care in today's health care environment, they are faced with less time for mentoring nurses who are new and unfamiliar with the role of manager. Historically, nurses come to the role of manager with little or no managerial skills, and the majority are not prepared for demands on time, energy, and personal resources (Kalo & June, 1996).

Intense job-related demands are a major source of stress among managers and often have significant negative effects on job performance and personal well being. This article describes a self-paced learning module that was developed using hardiness as a stress mediator to decrease stress among nurse managers.

BACKGROUND

Interest in the consequences of job stress for both employees and organizations is increasing as stress is linked to poor work performance, acute and chronic health problems, and employee burnout (Williams & Cooper, 1998). Estimates of the total cost of stress to American organizations assessed by absenteeism, reduced productivity, compensation claims, health insurance, and direct medical expenses range from \$4.2 to \$60 billion a year (Benton, 2000).

Hardiness

Over the past 20 years, the personality construct of hardiness has emerged as an important factor in buffering and offering resistance toward the effects of stress and coping (Maddi, 1987). Hardiness, as conceptualized by Kobasa (1979), is a set of beliefs about oneself and the world manifested as commitment, control, and challenge. Hardiness protects against stress in two ways by altering perceptions of stress and by mobilizing effective coping strategies. Hardiness transforms

difficult life events into opportunities for increased meaning in life (Schwab, 1996).

Hardy individuals are active and goal-oriented, and approach life with interest and excitement (Rowe, 1999). They exhibit a belief that stressors are changeable

and that they can influence what is going on around them with a willingness to act on the belief (control). Hardy individuals possess a deep involvement in life's activities and the knack of finding something interesting or important about whatever it is they are doing (commitment). They have a tendency to view changes, pressures and disruptions, however painful, as something to be learned from and grow with (challenge) (Khoshaba & Maddi, 1999). They see themselves, not as victims of threatening changes, but as individuals who are active determinants of the consequences brought about by change (Kobasa, 1979). Hardiness studies have found individuals possessing hardiness traits become ill less often (Kobasa,

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Maddi & Kahn, 1982) and have the ability to behave in an adaptive manner when stress is perceived or experienced (Maddi & Kobasa, 1984).

In a study among nurse managers, Judkins (2001) found those with high levels of hardiness reported lower levels of stress and higher problem-solving coping skills than those with low hardiness. McNeese Smith (1997) reported managers cultivating characteristics of hardiness tend to have employees who report significantly higher levels of job satisfaction, productivity, and organizational commitment. Therefore, promoting hardiness among managers and staff may decrease burnout (Balevre, 1001; Rowe, 1998; Simoni & Paterson, 1997), improve job satisfaction (Schwab, 1996), and increase retention (McNeese-Smith, 2000), with subsequent improvement in patient outcomes (Shullanberger, 2000).

Hardiness Training

With these studies comes strong evidence of the positive effects that high hardiness among managers and staff can bring to organizations. Several approaches have been used to advance hardiness among managers and create an environment that minimizes the negative effects of stress. Tierney and Lavalley (1987) used a classroom setting, in which hardiness content was covered in a 6-hour course consisting of lecture, role playing, and discussion. Rowe (1999) used a 6-week stress management and adaptive coping training condition consisting of discussion, practice using problem-focused coping solutions, and small work groups. Maddi (1987) used similar techniques of discussion and practice. In each of these studies, hardiness scores improved and stress scores decreased on completion of hardiness training. Furthermore, Rowe and Maddi both reported a sustained increase in hardiness scores over an extended period (6 to 24 months) when attendees were exposed to periodic follow-up training. These studies indicate that effects of job-related stress tend to be mediated among high hardy individuals and that hardiness can be learned.

However, a literature review produced little or no evidence of studies using self-paced modular instruction relative to hardiness training. Self-paced learning modules have been found to be a satisfactory delivery technique enabling learners to synthesize and personalize content, thus promoting long-term retention of information. Therefore, the authors chose modular instruction to meet the effectiveness of an educational intervention focusing on stress and hardiness among nurse managers.

METHODS

The Module

Module content was developed based on the foundational frameworks of stress and coping by Lazarus (1966), Kobasa's (1979) hardiness, and Roy's (1974) Adaptation Model. The module included demographic questions, pretest and posttest questionnaires, content activities, and content evaluation. The module, designed to review concepts of stress, adaptation, and hardiness, guided learners through self-awareness and evaluation of job-related stressors, adaptive, coping responses, and hardiness. Activities included reading materials related to module concepts, analyzing case studies for threats and coping strategies, and answering questions designed to challenge the participant to apply module information to both self and workplace.

Data Collection and Analyses

Data were collected from a convenience sample of 31 RNs working in mid-level managerial positions in four rural hospitals in east Texas. The majority of participants (72%) were older than 40 years. Women comprised 97% of the group, and 74% of the participants were married. Ethnic background was predominantly white (90%), with 45% reporting a baccalaureate in nursing as their highest level of education. More than half of the participants had been in management for 8 years or longer (Table 1).

Attainment of module objectives was evaluated using pretest and posttest questionnaires. In addition, participants completed a 30-item version of the Hardiness Scale (Baritone, Urasno, Wright, & Ingraham, 1989). The Hardiness Scale is a 45-item questionnaire designed to assure dispositional resistance and consists of three subscales: commitment, control and challenge. Previous studies showed the Hardiness Scale to have an alpha coefficient of .85, with internal consistency of the 30-item short form ranging from .56 to .82 for the subscales. Internal consistency of the summated 30-item form was .83. Scores are sensitive to measuring change due to the level of stressful events. Using the Hardiness Scale, high numerical values are associated with higher levels of hardiness and low values are associated with lower levels.

FINDINGS

Reliability of the module questionnaire increased by 50% or better from pretest to posttest, indicating internal consistency improved as learner knowledge increased. Alpha coefficients are

Characteristic	n (%)
Age (years)	
21 to 30	3 (9.7)
31 to 40	4 (12.9)
41 to 50	15 (48.4)
>50	9 (29.0)
Marital Status	
Single	2 (6.5)
Married	23 (74.2)
Divorced	5 (16.1)
Separated	1 (3.2)
Highest Educational Degree	
Associate	13 (41.9)
Baccalaureate in nursing	14 (45.2)
Masters in nursing	0 (0)
Other baccalaureate	3 (9.7)
Other masters	1 (3.2)
Years in Management	
<1	2 (6.4)
1 to 3	7 (22.6)
4 to 7	6 (19.4)
8 to 12	10 (32.2)
>12	6 (19.4)

	Pretest	Posttest
Module questionnaire	.86 (N = 27)	.69 (N = 27)
Hardiness Scale		
Composite	.70 (N = 29)	.78 (N = 30)
Commitment	.68 (N = 31)	.62 (N = 31)
Control	.42 (N = 31)	.58 (N = 30)
Challenge	.37 (N = 30)	.51 (N = 31)

	Mean (SD)		<i>t</i>
	Pretest	Posttest	
Module questionnaire	70 (12.9)	82 (15.1)	3.2*
Hardiness Scale			
Composite	1.2 (.16)	1.9 (.23)	-16.6*
Commitment	1.1 (.21)	2.1 (.28)	-16.9*
Control	1.1 (.24)	2.2 (.27)	-16.1*
Challenge	1.5 (.29)	1.7 (.29)	-4.2*

**p* < .001.

presented in Table 2. Hardiness Scale composite and subscales reliability for both pretest and posttest were at or slightly below those reported by Bartone et al. (1989). Subscale commitment decreased from pretest to posttest, indicating a loss of internal consistency across items and suggesting a closer look at module content, which may have disrupted participant thinking about commitment. Should the project be repeated with similar findings, a discussion with participants may prove beneficial to determine difficulties or suggestions for improvement.

Data were analyzed using SPSS Version 10 software. Using a paired-sample *t* test, pretest and posttest module questionnaire and Hardiness Scale mean scores were compared (Table 3). Change scores for the module questionnaire were significant (*p* < .001), as were hardiness composite and subscale scores. These findings indicate an educational intervention in the form of a self-paced learning module had a significant effect on participants' understanding of stress and coping, with a subsequent increase in hardiness levels.

As part of the evaluative process, participants also were asked to complete a short evaluation of the module. Most (81%) agreed the module met learning objectives and the teaching methods promoted learning. The module was ranked high for relevancy (77%), understanding (65%), and recommending to others (87%). Quality of the module overall was ranked high at 80%.

DISCUSSION

This study examined whether information relative to stress and hardiness could be taught in a self-paced learning module. The findings are consistent with previous studies and indicate that hardiness training can increase hardiness levels among participants (Maddi, 1987; Rowe, 1999; Tierney & Lavelle, 1997). Furthermore, pilot findings indicate use of an educational module can be effective in increasing participant knowledge of stress and hardiness, and in increasing hardiness levels.

Commitment

Contributions to changes in total hardiness scores were best-revealed in commitment and control subscales. Given that high hardy commitment is both a feeling and conviction, individuals who are high hardy for commitment do not easily give up under pressure, involve themselves deeply with others and what they do, and experience a strong sense of purpose and direction (Kobasa, 1979). This can be especially helpful in health care organizations as the focus of managers must entail caring for caregivers as well as patients, while directing work groups toward meeting organizational goals (Judkins & Eldridge, 2001). The balance of these two focuses can be demanding, but to high hardy individuals, the task becomes exciting and fulfilling versus stress producing. Moreover, high commitment managers will be observed creating conditions that engender pride among staff. For example, Tierney and Lavelle (1997, p 216) suggest asking staff questions such as:

- “How can we as a group commit to solving (whatever)?”
- “What part of this problem can we control?”
- “How can this (these) overwhelming problem(s) be regarded as a challenge?”

Such questions will stimulate alternative solutions and lead to higher levels of problem solving, with staff gaining a series of involvement, satisfaction, and commitment.

Control

High control individuals tend to feel and act as if they are influential in contingencies of life. Events are perceived as a natural outgrowth to the individual's actions and not as unexpected experiences (Kobasa et al., 1982). Nurse managers experiencing high control typically see themselves involved in workplace events and able to participate in or effect their direction. Consequently, workplace stressors are seen as non-threatening, natural, and meaningful (Fox, Fox, & Wells, 1999). High control persons feel and act influential; they feel both capable and empowered to achieve desired outcomes (Kobasa, 1979). Nurse managers who are high hardy for control are more willing to create “fun” work environments in which good feelings arise from making others feel good and being good at what one does. With the high hardy manager, creativity among staff is rewarded, and others are inspired to generate ideas, influence thinking, and implement new practices (Papas, 1995). In other words, staff is empowered to make a difference because the manager believes they (both the manager and staff) do make a difference.

Challenge

Although challenge change scores contributed less to total hardiness than commitment and control, there was still a significant effect ($p < .001$). According to Khoshaba and Maddi (1999), individuals high hardy for challenge believe their lives are most fulfilled “when they are growing and developing through learning from experience (rather than wishing for easy comfort and security)” (p.106). High challenge nurse managers find themselves innervated by change with actions translating into active participation in committees or groups that play a decisive role in how the organization is directed. Moreover, these managers encourage staff to explore work environments to identify resources that will aid in stressful situations (Kobasa, 1979). They will promote new learning opportunities among staff, albeit formal or informal, recognizing the enhanced knowledge often unlocks fresh or innovative ways to solve problems or change practices. Change can be perceived as either a threat or an opportunity. Hardy individuals tend to see the opportunity and excitement in change, while low hardy persons feel threatened and frequently respond with negativity, criticism, and even sabotage.

Integration Into Practice

Given that hardiness can be learned through educational offerings, integration into practice is the next desired step. However, integration of hardiness by nurse managers may be difficult without support from nurse administrators. Table 4 summarizes some strategies to enhance hardiness. Nurse administrators can mentor managers in this process through role modeling and promoting high hardy work environments, which benefit both the manager and the organization. Rowe (1999), and Tierney and Lavelle (1997) offer suggestions for creating an atmosphere conducive to hardiness.

Commitment can be encouraged through conflict management and assertiveness training, which promotes group interaction and cohesiveness. In addition, by supporting and rewarding risk-taking behaviors, managers and staff will see positive associations between their contributions and patient outcomes.

Control can be endorsed by advocating manager participation in budget preparation and by using problem-focused strategies. Among staff, control can be supported through shared governance and by encouraging staff to creatively solve scheduling issues. Challenge can be advanced by promoting new learning experiences, by role modeling change as positive, and by rewarding positive changes in behavior and practices.

TABLE 4 STRATEGIES TO ENHANCE HARDINESS		
Hardiness	Characteristics	Strategies to Enhance
Commitment	Do not easily give up under pressure; involve themselves deeply with others; possess a strong sense of purpose	Encourage and reward risk taking among staff linking contributions and patient outcomes; use scenarios to discuss how staff as a group can commit to solving problem/issue together; stimulate alternative solutions through conflict management and assertiveness training.
Control	Feel and act influential; perceive events as out-growth of own actions; actively participate in workplace direction	Create fun work environment; encourage and reward creativity among staff to generate ideas and implement new practices; discuss opportunities with staff to increase sense of autonomy such as shared governance and self-scheduling; use case studies to reinforce problem-focused strategies versus stress reduction.
Challenge	Innervated by change; enjoy and promote new learning experiences; explore resources to aid in stressful situations	Promote new learning experiences among staff; actively participate in organizational committees and groups; promote change as constructive; engage staff in the change process and reward positive change as constructive; engage staff in the change process and reward positive changes in behavior and practices.

IMPLICATIONS FOR NURSING

Work stress and personal hardiness have been linked with professional burnout (Rowe, 1998; Simoni & Paterson, 1997). If managers can increase personal hardiness and create an environment that supports hardiness, turnover costs from stress and burnout may decrease, with a subsequent increase in productivity. Nurse educators and administrators may find value in measuring hardiness levels when interviewing potential nurse managers to determine those high in hardiness and those possibly at risk for high stress (Judkins, 2001). Attention then could be focused on managers who need educational interventions relative to stress management and adaptive coping strategies.

Regard for staff is also a consideration when focusing on hardiness. Hardiness training can help create work settings that would attract and retain RNs. Nursing education departments play an enormous part in any organization and can be pivotal in advancing a hardy work force through learning activities such as the one described here. Ongoing hardiness training should be considered by any organization interested in cultivating a work environment that reduces job-related stress and its associated negative effects.

In terms of hardiness training, caution must be exercised when drawing conclusions about education interventions. Tierney and Lavell (1997) found hardiness scores immediately improved following an intervention to promote hardiness, but scores were not sustained when evaluated 6 months later. Conversely

Maddi (1987) and Rowe (1999) found continued hardiness levels at 6 to 24 months when hardiness training occurred over a period of time and involved limited follow-up activities. Educational interventions such as the one used in this project may be helpful in promoting short-term hardiness, but long-term effects of self-paced education modules need to be explored to determine whether results are sustained.

CONCLUSION

Health care professionals are more susceptible to high stress because of intense daily demands. Effectively dealing with work stressors by helping to increase hardiness may better equip managers (and their staffs) to prevent or reduce physical and psychological illness. This project demonstrates that hardiness and coping with stress among nurse managers can be learned through self-paced learning modules. Should this knowledge and skill be translated to the work environment, positive outcomes of high staff retention, low turnover rates, high job satisfaction, and low burnout may be achieved. Each of these outcomes can improve not only the bottom line, but also the quality of patient care.

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