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Relationship of Nurse Job Satisfaction to Implementation of a Nursing Professional Practice Model

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Recurring nursing shortages coupled with concerns about the quality of contemporary health care highlight the critical need to recruit and retain a cadre of professional nurses in our nation's hospitals. Recruitment and retention of staff nurses is determined to a large extent by nurse satisfaction with work.[1] Practice characteristics that enhance job satisfaction have been well described in the literature and are celebrated in the Magnet Hospital recognition. Less is known about how nurse job satisfaction changes during the challenging process of

organizational restructuring that may accompany the journey to meet Magnet requirements.

Background.

The American Nurses Credentialing Center (ANCC) Magnet Hospital designation recognizes excellence in delivery of nursing services, organizational support for professional nursing practice, and disseminating nursing best practices.[2] Characteristics of nurse practice in Magnet hospitals include the ability to establish and maintain therapeutic relationships with patients, autonomy and control over practice, unit level collaborative nurse-physician relationships, and visible, responsive nurse administration.[3,4]

A recurring theme in the Magnet literature is the contribution of autonomy and professional control to job satisfaction.[5,6] Professional status, positive interactions with physicians, autonomy, and strong manager and peer support are highly satisfying to staff nurses according to studies of the effects of work environment on nurse job satisfaction.[7-10] Control over nursing practice, as a result of shared governance, is highly correlated with job satisfaction.[5,11,12]

Studies comparing Magnet and non-Magnet hospitals show that Magnet Hospitals promote nurse job satisfaction and experience high levels of nurse retention.[13,14] However, hospitals may experience turbulence as they restructure organizational practices to attain Magnet characteristics. Organizational restructuring, particularly if nurses are expected to develop more self-governance, may be stressful, and changes in work satisfaction may be associated with this process.

A search of several electronic databases, including Academic Search Premier, SocIndex, EconLit, CINAHL, and Medline revealed few studies addressing nurse work satisfaction changes during the Magnet application process, and none examining satisfaction during the process of structural reorganization during the Magnet application process. A survey of over 2,000 nurses practicing in intensive care units (ICU) showed those in the process of Magnet Recognition application had lower mean scores on six of the seven subscales of the Perceived Nursing Work Environment Instrument compared to ICU nurses in both Magnet and non-Magnet ICUs (Cimiotti, Quinlan, & Larson, et. al., 2005).[15] A survey of a random sample of 3500 U.S. RNs showed that those practicing in hospitals in the process of Magnet application rated salary, benefits, opportunities to influence decisions about work, recognition of accomplishments, opportunities for professional development, opportunities for advancement, and opportunities to establish relationships with patients and families more highly than nurses in either Magnet or non-Magnet organizations.[16] Whether restructuring of nursing governance occurred in the hospitals examined was not known.

Purpose

The purpose of this study was to determine whether there was evidence of change in nurse satisfaction when a nursing practice model was changed as part of an organization's effort to achieve Magnet characteristics. The study sought to answer the following questions. What is the baseline level of nurse job satisfaction in a pediatric hospital with a traditional, hierarchical nursing governance structure prior to the implementation of a new professional practice model? What changes in nurse job satisfaction are associated with the implementation of a new professional practice model with more emphasis on participatory governance? How does the level of nurse job satisfaction change over time from submission of the Magnet recognition application to one-year post submission in the selected case? The investigators hypothesized that the process of changing the model of nursing governance from a top-down to a participatory model while seeking Magnet recognition might be stressful and would be associated with fluctuations in nurses' work satisfaction.

Conceptual Framework

Assumptions that contribute to the construct of worker satisfaction are derived from the exchange-flow systems perspective developed by Grant.[17] The central concept of Grant's model is that employment is an exchange process in which both employee and organization have needs and provide contributions. Employee motivation and satisfaction are related but distinct phenomena. Motivation is inherent in the individual worker. Satisfaction, on the other hand, may result when the effort produced by the worker is rewarded. Rewards include a range of satisfiers, such as pay and challenging work. The social system of the organization, including power hierarchies, communication, and decision-making processes are particularly important as satisfiers. Satisfiers measured by the instrument used in this study include pay, autonomy, task requirements, organizational policies, interaction, and professional status.

Changing an organizational model from a top-down to a shared-governance structure may enhance nurse satisfiers in the long term, but the process of change itself may be experienced as a crisis by both managers and workers. Classical crisis theory postulates that people respond to major changes by using familiar coping mechanisms (Caplan, 1964).[18] Coping mechanisms that work in a more authoritarian governance structure are unlikely to be adaptive in a more participatory structure, thus worker distress may occur.

The Professional Practice Model:

A professional practice model is a framework that provides guidance for individual nurses in their practice and defines the relationship between the organization and nurses. Five years ago the Nursing Department had a traditional hierarchal model of top-down management, and nurses identified that this did not reflect the philosophy of the organization and its future goals. Nurses in the organization felt that any new model of practice and shared governance

structure should be grounded in the Nursing's Department's philosophy. The existing written philosophy of nursing and a mission statement were reviewed to identify core principles and concepts. Nurses at all levels had the opportunity to provide input into the revised philosophy which provided a foundation for the new model of professional practice**.**

Caring, collaboration, respect, family-centered care, critical thinking, professional development, and art and science were selected as the key concepts. A jig saw puzzle was selected as a schematic model because nurses felt that all of the concepts were inter-locked and made up the total picture of their practices. A shared governance structure of nursing councils was created based on the practice model.

Several existing committees were incorporated into the new councils – Policy and Procedure, Nurse Managers, Nurse Staffing Advisory, Professional Development, and Nursing Executive. New councils formed were Retention and Recognition, Research and Publication, and Nursing Quality Improvement. The chairs of the councils and the members of the Nursing Executive Council formed the new Coordinating Council which is the central governing body. Emphasis in the new governing structure is on staff nurse participation at both the member and chair level, which represented a major change in governance structure.

Methods

Design:

This cross-sectional study examines job satisfaction in a private, 282 bed, pediatric hospital prior to, during, and immediately after application for and attainment of Magnet Hospital status. During this period hospital nursing administrators, nurse managers, and staff nurses jointly constructed a formal shared governance professional practice model for nursing as described above. A descriptive approach using pre and two repeated post-test measures was used to answer the research questions.

Sample.

All (800-848 in the years 2004-2006) licensed nurses providing direct patient care in the hospital system were invited to participate. The non-random sample was composed of respondents who returned the work satisfaction instrument. Power of .80 to detect medium effects with an alpha level of 0.05 would have been obtained with a sample of 252 respondents, and in each survey administration more than 300 subjects responded. Characteristics of the samples in each year are described in Table 1. Nurses were all employed in a pediatric hospital or affiliated subspecialty clinics in a large metropolitan area in Texas and are thought to be representative of pediatric nurses in the state. It is likely that they are not representative of nurses practicing in non-pediatric settings.[19]

Measurement:

Level of nurse satisfaction was measured using the Index of Work Satisfaction (IWS) developed by Stamps and Piedmonte.[5] The IWS was developed over three decades and has been tested in multiple nursing populations. Reliability coefficients range from .82 to.91 (Stamps, 1997).[20] The six subscales demonstrated adequate reliability coefficient ranges of .83-.89 (Pay), .69-.76 (Autonomy), .69-.78 (Task Requirements), .73-.83 (Organizational Policies), .45-.76 (Professional Status), and .72-.84 (Interaction). Validity has been supported by multiple factor analyses demonstrating appropriate loading on the six factors comprising the subscales.

Data Collection:

Data was collected at three points in time. Baseline nurse satisfaction scores were collected in April 2005 just prior to the Magnet “kick-off” celebration. During the following year a professional practice model for nursing was implemented at the hospital as part of the Magnet journey. One year (March 2006) following the baseline, at the time of submission of Magnet application documents, nurse satisfaction was measured again. Nurse satisfaction was measured a third time in March 2007, at which time Magnet recognition had been awarded .

At each measurement time a letter inviting staff to participate in the study and giving information about how to reach the investigators was included in a packet with the demographic questions and the Index of Work Satisfaction. Packets were distributed to nurses by their unit timekeepers. A stamped return envelope addressed to the university office of one of the investigators was included with packets, and packets were not handled by hospital personnel following distribution. The study was approved by the Institutional Review Board of the participating hospital.

Data Analysis:

Total and component IWS scores were compared across time at the conclusion of the measurement period. IWS scores were determined according to instructions in the ISW scoring workbook published by Market Street Research.[21] Descriptive statistics were obtained to characterize the sample, repeated measures ANOVA was used to determine if changes over time on selected item scores were significant, and regression analysis was used on selected variables in the 2007 dataset to evaluate the contributions of years of experience at the institution to item scores. Chi square was used to analyze relationships between item scores and selected variables in cases in which distributions were not normal or near normal. Statistical calculations were obtained using SPSS.15 software.

Results

The Index of Work Satisfaction score is weighted, i.e. it represents the level of satisfaction reported by nurses given the relative importance of the components measured on the six subscales including pay, autonomy, task requirements, organizational policies, professional status, and interaction. The IWS is a *global* measure of overall satisfaction. IWS scores were all in the second quartile and included 14.3 in 2005, 14 in 2006, and 14.1 in 2007. The IWS range is 0.9 to 37.1, and in previous studies has generally been around 12.[20] Mean scale scores represent the *unweighted* estimates of level of global satisfaction and range from 1 to 7 with 7 reflecting the most satisfied response. The mean scale score was 4.6 in *each* of the three years. Internal consistency of responses to the 44 attitude items in the Part B questionnaire was high (Cronbach's alpha = .92). Guttman split-half was .90 with alphas of .84 for the first half and .86 for the second.

Most satisfying components

Table 2 and figure 3 indicate the means of work satisfaction components across three years. Nurses were most satisfied with Professional status, interaction, and autonomy. Although the mean component scores for autonomy and professional status dipped in 2006, they returned to baseline by 2007 as shown in figure 1, and satisfaction with interaction remained high throughout the study period.

At the individual item level satisfaction on all items related to autonomy dipped the second year and rose again the third. Scores on items related to professional status followed the same pattern. In particular it was noted that nurses' perception that they had too much responsibility and not enough authority increased from 42.2 percent of the respondents to 59.2 percent from the first to second survey, but decreased again to 48 percent on the third survey. Scores on interaction related items, including interaction with nurses and physicians, did not change noticeably from one year to the next.

Most unsatisfying components

Pay. Although pay was the most highly valued component of satisfaction for nurses in all three years, it was the least satisfying, and satisfaction with pay decreased each year. From 2005 to 2007 the mean scores on two pay-related items decreased significantly, and sharp decreases (more than 25%) in the size of the satisfied group were found on 4 of the 6 pay items as shown in Table 3.

Log transformation of years of employment at the institution was regressed on each item in the 2007 dataset, and showed years of service at the institution influenced responses on two pay related items, item 8 and item 21. As years of employment at the institution increased, satisfaction with pay decreased (intercept = 2.049; $ = -.233; p = .008). As years of employment increased, so did dissatisfaction with the current rate of pay increases (intercept = 3.163; $ = -.190; p = .04).

In 2007 the relationship between manager/supervisors and responses to item 14 (considering what is expected of us, the pay we get is reasonable) was significant (X 2 = 0.018), with 78 percent of managers expressing satisfaction. The relationship between employment in the specialty clinics and item 14 was mildly significant (X 2 = 0.035). Of the clinic nurses, only 41 percent expressed some degree of satisfaction on this item.

Task requirements. Mean scores on the task requirement component changed only fractionally as shown on figure 1. On the other hand, high scores on some items effectively obscured exceptionally low scores on others. For instance in 2007 only 81 percent of the respondents were satisfied that the amount of clerical and paperwork required of nursing personnel was appropriate (item 4); however, this was a 13 percent increase (improvement) from 2005. Regressing years worked at the institution on responses to item 4 regarding clerical and paperwork burden in the 2007 dataset showed that the longer nurses worked at the medical center, the more dissatisfied they were with the clerical and paperwork burden (p = .001).

Organizational policies. Mean responses on items in the organizational policies component did not achieve the satisfied range with the exception of item 5 as shown on Table 4. Although nurses reported a high degree of satisfaction with scheduling control, in 2007 nurses working on general medical-surgical inpatient units expressed more satisfaction with scheduling control than other nurses, with 79 percent of respondents from general units agreeing that the nursing staff had sufficient control over scheduling their own shifts compared to 60 percent of the other respondents (X 2 = .02).

The two organizational policy items on which nurses expressed the greatest dissatisfaction were items 12 and 42. Fewer than a fifth of respondents in any year were satisfied with the distance of hospital administration from the daily problems of nursing (item 12), and fewer than a quarter of respondents in any year agreed with item 42, that nursing administrators generally consulted with staff on daily problems and procedures. On the other hand, trends on organizational policy items were positive, with percent of respondents reporting satisfaction and mean item scores all moving in the satisfied direction. In 2007 nurses with more experience at the institution were more likely to agree that they had all the voice in planning policies and procedures that they wanted (p = .03). However, the more experience nurses had at the hospital, the less satisfied they were with nursing administrator consultation with staff on daily problems and procedures (p = .005). Otherwise there were no differences between groups.

Discussion

Scores on the weighted IWS in this sample indicate satisfaction is higher at the target institution than for nurses in previously reported studies using the IWS, but satisfaction is low for nurses generally as suggested by recurring nursing

shortages and generally low IWS scores across different studies. In this sample global satisfaction did not change during the process of implementing a new professional practice model, but changes did appear in some of the components of satisfaction, and examination of individual items revealed some significant changes.

Because the primary purpose of the study was to determine whether nurse satisfaction changed during a period of transition to a more participative nursing governance model, changes in the organizational policies component of the IWS were of particular interest. That this component was the least valued throughout the study period and simultaneously the least satisfying may indicate a generally naïve understanding of governance and its relationship to practice. Organizational policies may be unsatisfying but not valued because nurses may not have enough experience to imagine alternatives to the status quo. They may accept traditional structures as inevitable and distrust attempts to change. Nurses may not wish to do the work involved in authentic participation if they perceive proposed changes as temporary or superficial. If that is the case, culture change will be slow, but signs of slow change are visible here in the upward trends of responses to organizational policy items on the IWS questionnaire. Patient satisfaction and outcomes in settings where nurses practice under different practice models represent opportunities for future research in this area.

Lack of satisfaction with pay is not surprising in service occupations where wages have stagnated across the country while workloads increased.[22,23] Workers are more likely to feel satisfied when they perceive that their efforts in a stressful environment are well rewarded, and in this respect pay is a particularly powerful satisfier. Nurses with more experience in the institution appeared to differ from less institutionally experienced counterparts in their views on pay. Senior nurses were more likely to believe that nurses at the institution were dissatisfied with pay and also more likely to be dissatisfied with the present rate of pay raises for nursing personnel. Possible explanations for senior nurse dissatisfaction could be that they were encountering a ceiling beyond which no more raises can be expected or they were disproportionately represented on committees, preceptorships, and other projects that they believed were not being fairly rewarded.

Institutional Response

When nurse administrators presented IWS data regarding dissatisfaction with pay to the Human Resources department at the institution, the institution responded. The hourly wage rate was increased for all nurses at the institution. In addition, the pay scale was adjusted (upwards) across nursing. Likewise administrators responded to the IWS data regarding perceived distance between bedside nurses and administration. They initiated a system in which upper

administrators, including but not limited to nursing, now make weekly walking rounds in nursing units.

Limitations

Response rate to the survey was disappointing. In 2007, for instance, only 314 usable surveys were returned, a return rate of 39 percent. In 2006 and 2005 the return rates were 41 percent and 43 percent respectively. However, these rates are comparable to those reported by the Nursing Database of Nursing Quality Indicators (NDNQI) for mail and internet surveys using an adapted work satisfaction tool.[24] It is possible that nurses who bother to return surveys are those who are most engaged in organizational changes and goals. Regional variations in pay and culture limit generalizability. Nursing salaries in this geographical region are known to be lower than in other regions and nurses are not organized in unions. Specific adjustments for multiple testing were not performed. Significance values greater than .01 should be interpreted cautiously, and probably best viewed as trends or suggestive rather than significant differences.

Conclusion

Analysis of individual items in the IWS Part B attitude questionnaire tool proved to be a useful means of gaining specific information about organizational practices that are valued and currently satisfying or dissatisfying to a particular sample of nurses. This is valuable information for hospital administrators involved in recruitment and retention of nursing personnel as well as for nursing managers. In this case data analysis resulted in substantive institutional change. The IWS has been used recently in Canada for similar purposes in a heavily unionized environment with positive results (Best & Thurston, 2004).[25]

A new adaptation of the IWS by the NDNQI has been described (Taunton, et. al, 2004), and features improvements that promise to make measurement of nurse satisfaction even more informative. The NDNQI adaptation preserves the core structure of the Stamps tool but revises several items to clarify concepts and streamline language. It includes a focus on work groups, rather than individuals and emphasizes analysis at the patient care unit level. The NDNQI continues to refine the adapted instrument and collect data from hundreds of hospitals nationwide. As this study indicates, systematic investigation of nurse satisfaction using standard reliable and valid tools, such as the IWS or the NDNQI adaptation provides nursing administrators the means of setting relevant goals for individual institutions and benchmarking against national values.

Good news from this sample included the demonstration that changing the nurse governance model in a large tertiary care medical facility was associated with only minor and transient changes in nurse satisfaction. Over the longer term, if trends remain constant, this institution should see improvements in global nurse

satisfaction as satisfaction with individual components, such as organizational policies, improves. This should be reassuring for nursing groups anticipating change in practice models or application for Magnet status.

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