



Context Matters

The Impact of Unit Leadership and Empowerment on Nurses' Organizational Commitment

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Objective: The aim of this study was to test a multilevel model linking unit-level leader-member exchange quality and structural empowerment to nurses' psychological empowerment and organizational commitment at the individual level of analysis.

Background: Few studies have examined the contextual effects of unit leadership on individual nurse outcomes. Workplace empowerment has been related to retention outcomes such as organizational commitment in several studies, but few have studied the impact of specific unit characteristics within which nurses work on these outcomes. **Methods:** We surveyed 3,156 nurses in 217 hospital units to test the multilevel model.

Results: A multilevel path analysis revealed significant individual and contextual effects on nurses' organizational commitment. Both unit-level leader-member exchange quality and structural empowerment had significant direct effects on individual-level psychological empowerment and organizational commitment. Psychological empowerment mediated the relationship between core self-evaluations and organizational commitment at the individual level of analysis.

Conclusions: The contextual effects of positive supervisor relationships and their influence on empowering working conditions at the unit level and, subsequently, nurses' organizational commitment highlight the importance of leadership for creating conditions that result in a committed nursing workforce.

The recruitment and retention of healthcare professionals, particularly nurses, are high-priority policy issues in light of the current workplace shortage in Canada. The Canadian Nurses Association¹ projects a shortage of 78,000 registered nurses in Canada by 2011. With a large cohort of nurses nearing retirement and fewer individuals entering the profession, it is imperative to improve working conditions currently characterized by limited resources, heavy workloads, and high absenteeism rates.² Negative working conditions are a major cause of turnover among nurses,³ resulting in job dissatisfaction and reduced commitment to the organization.⁴⁻⁵ Retention strategies must be targeted at improving nursing work environments to not only attract newcomers to the profession but also retain nurses currently within the system. Organizational commitment has been consistently related to staff nurse turnover in numerous studies.⁵ Therefore, it is important to understand factors that promote staff nurse commitment to inform recruitment and retention efforts.

Workplace empowerment is a management strategy that has been shown to be successful in creating positive work environments in organizations.⁶⁻⁹ Spreitzer,¹⁰ in a review of 20 years of

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empowerment research, notes that there are 2 aspects of workplace empowerment that define the empowerment experience in organizations: structural empowerment (access to conditions that enable optimal role performance) and psychological empowerment (employee cognitions in response to working in empowering conditions). Taken together, structural and psychological empowerment represent a powerful approach to creating workplaces that attract and retain individuals to organizations. Relationships among structural and psychological empowerment have been established in the nursing literature.^{11,12} However, the role of nursing leadership at the unit level in creating empowering workplaces that enhance nurses' commitment to their employing organizations has not been studied extensively.

The purpose of this study was to test a model derived from an expanded model of Kanter's theory¹¹ linking unit-level leader-member exchange (LMX) quality and structural empowerment to psychological empowerment and organizational commitment at the individual level of analysis. We also examined the effects of a personal dispositional variable, core self-evaluation (CSE), on nurses' psychological empowerment and organizational commitment.

Kanter's^{13,14} Theory of Structural Power in Organizations

Kanter¹³ defines power as the ability to mobilize human and material resources to accomplish organizational goals, arguing that an empowering work environment ensures that employees have access to information, resources, support, and opportunities to learn and grow. Access to these empowerment structures is enhanced by specific job characteristics and interpersonal relationships that foster effective communication (formal and informal power). Kanter^{13,14} maintains that having access to opportunities for learning, growth, and advancement in the organization results in greater employee satisfaction, commitment, and productivity. Employees in positions with low opportunity feel stuck in their jobs, resulting in lower career aspirations and lower commitment. Other empowerment structures include resources, information, and support.^{13,14} Access to resources relates to one's ability to acquire the financial means, materials, time, and supplies required to do the work. Access to information refers to having the formal and informal knowledge that is necessary to be effective in the workplace (technical knowledge and expertise required to accomplish the job and

an understanding of organizational policies and decisions). Access to support involves receiving feedback and guidance from subordinates, peers, and superiors. High levels of structural empowerment come from access to these social structures in the work setting.

Research has shown that structural empowerment is related to staff nurse job satisfaction,¹⁵ autonomy,¹⁶ trust,¹⁷ respect,¹⁸ and burnout.¹⁹ Numerous studies have linked empowerment to organizational commitment.^{17,20-22}

Psychological Empowerment

Spreitzer⁹ defines psychological empowerment as the psychological state that employees must experience for managerial empowerment interventions to be successful. Psychological empowerment has 4 components: meaning, competence, self-determination, and impact. *Meaning* entails congruence between an employee's beliefs, values, and behaviors and job requirements. *Competence* refers to confidence in one's job performance abilities. *Self-determination* refers to feelings of control over one's work. *Impact* is a sense of being able to influence important outcomes within the organization. Researchers have linked psychological empowerment to organizational commitment in nonnursing environments.^{9,23} Laschinger et al¹² found that changes in structural empowerment over time led to positive changes in psychological empowerment and increased job satisfaction. Thus, strategies that foster a sense of empowerment of nurses in nursing settings are critical to organizational success.

Linkage Between Structural and Psychological Empowerment

Laschinger et al¹¹ argued that psychological empowerment represents a reaction of employees to structural empowerment conditions. That is, whereas structural empowerment is the perception of the presence or absence of empowering conditions in the workplace, psychological empowerment is employees' reactions to these conditions. They established evidence to suggest that psychological empowerment is an intervening variable between structural empowerment and employee effectiveness.

Numerous studies have established links between structural and psychological empowerment and important organizational attitudes and behaviors. Few, however, have examined the effects of context on empowerment in nursing settings. Seibert et al²⁴ argue that structural empowerment is a macro-level variable because it captures the collective experience

of members of work groups within organizations, for instance, nurses working on specific units within a hospital. Psychological empowerment, on the other hand, reflects individual responses to work conditions and operate at a different level. Therefore, multilevel designs are appropriate for studying these relationships. In their study, they found that psychological empowerment mediated the relationships between unit-level structural empowerment and individual-level job satisfaction. Further support for the notion of empowerment as a unit construct was established by Kirkman and Rosen.⁷ Based on this reasoning and empirical evidence, we hypothesized that unit-level structural empowerment would have a direct effect on nurses' psychological empowerment at the individual level of analysis.

LMX Quality

Leadership is a key factor in creating empowering conditions in the workplace.⁷ The quality of relationships between managers and workers, particularly at the unit level, where there are greater opportunities for interaction, influences both employee outcomes and unit performance.²⁵⁻²⁷ The LMX theory is a useful model that may be used to examine the effects of relationships between leaders and followers.²⁸ The LMX relationship quality consists of 4 dimensions: *contribution* (performing work beyond minimal expectations), *affect* (friendship and liking), *loyalty*, and *professional respect* for one's capabilities. Leader-member exchange quality has been linked to job satisfaction, commitment, and job performance.^{25,29}

Research has shown that positive manager-employee relationships result in employee empowerment. A meta-analysis by Gerstner and Day²⁵ linked LMX quality to outcomes similar to structural empowerment. High-LMX relationships were associated with greater access to resources, whereas low-LMX relationships were associated with fewer resources, more restricted information, and lower job satisfaction. Liden et al³⁰ showed that high LMX quality is predictive of the competence and meaningfulness aspects of psychological empowerment.

Nursing research has demonstrated the impact of leadership on structural empowerment^{29,31} and on nurses' job satisfaction, commitment, and work stress.^{4,32,33} However, the cross-sectional nature of these studies precludes an examination of the contextual or unit-level effects of LMX quality on employee outcomes. In our study, we considered LMX quality as a unit-level variable, representing the collective evaluation of unit leadership. Cogliser and Schriesheim³⁴ found both individual and group ef-

fects for LMX quality, suggesting that unit effects are important to understanding the context within which leadership takes place. We hypothesized that these shared impressions of unit leadership would have a positive impact on their shared perceptions of structural empowerment on their units, which would subsequently affect individual nurse's psychological empowerment and commitment at the individual level of analysis.

Organizational Commitment

Organizational commitment is an important predictor of nurse turnover and is therefore important to consider given the current nursing shortage and the high costs associated with turnover.^{5,35} Affective commitment refers to an employee's attachment, identification, and involvement with the organization and has been positively related to job performance, job satisfaction, and turnover.³⁶ McNeese-Smith³³ linked nurse manager transformational leadership styles to nurses' organizational commitment. Cho et al²⁰ found that new graduates' organizational commitment was strongly related to structural empowerment. A meta-analysis by Wagner⁵ found that organizational commitment was a stronger predictor of turnover than job satisfaction was. Ingersoll et al³⁵ linked higher turnover intentions to lower organizational commitment, a finding corroborated by Tourangeau and Cranley.³⁷ However, none of these studies examined the contextual effects of the specific work units on organizational commitment.

Core Self-evaluations

Although Kanter would argue that employee attitudes are determined by structural empowerment, the role of individual differences has not been explored fully. Manojlovich and Laschinger¹⁵ found that individual differences, such as need for achievement and personal mastery needs, did not add explained variance for job attitudes beyond that of structural empowerment. It may be, however, that there are other dispositional variables that are more influential in determining work attitudes. Judge and Bono³⁸ argue that people's fundamental evaluation of their personal worth and capabilities (CSEs) affects how they interpret events in their environments and influence their responses to these events. Core self-evaluations are composed of 4 personality characteristics: self-esteem, general self-efficacy, locus of control, and emotional stability. In a meta-analysis of 135 studies, Judge and Bono³⁸ showed that job satisfaction was consistently influenced by CSE, and Laschinger et al²⁹ found that nurse

managers' CSE was positively related to workplace empowerment and job satisfaction. By examining the contribution of both personal and contextual factors in determining psychological empowerment and organizational commitment, we will be in a better position to understand conditions that will persuade nurses to remain in their current positions and delay early retirement. To our knowledge, no research has examined relationships among these individual and contextual variables at different levels of analysis (both within and across levels).

Hypothesized Model

Based on the preceding arguments, we proposed a multilevel model of job commitment. At the individual level, we hypothesized that psychological empowerment is positively related to organizational commitment and that CSE positively influences nurses' psychological empowerment. At the unit level, we hypothesized that unit LMX quality has a positive direct influence on unit structural empowerment. Unit-level LMX quality was also expected to have a direct effect on both psychological empowerment and organizational commitment at the individual level of analysis (across-level effects). We expected similar effects for unit-level structural empowerment (Figure 1). Years of experience (not shown on the diagram) was included in the model as a control variable.

Methods

Sample and Design

A multistage stratified cluster sampling design was used to test the model. In multilevel modeling, there are 2 sample sizes to be concerned with: the number of units and the average number of nurses per unit. To accurately estimate parameters and their standard errors, a large number of groups (units) are needed (at least 100 groups)³⁹⁻⁴¹ and at least 30

individuals per group are recommended to ensure sufficient power to detect across-level interactions.

In total, 21 Ontario hospitals with more than 300 beds were purposively selected from the Canadian Hospital Directory to ensure that hospitals from all provincial health districts were represented. Only inpatient units with more than 30 staff nurses were sampled, which resulted in a sample of 7,875 nurses in 217 units.

After ethical approval was obtained at each site, questionnaires were distributed through the hospital mail. To increase our return rate, we used the Dillman Total Design Methodology.⁴² A total of 3,156 staff nurses in 217 hospital units in Ontario Canada (overall 40% response rate) returned completed questionnaires to our research office. The average respondent was 42 years old, with 17 years of experience in nursing and 11 years on their current unit (Table 1).

Instrumentation

Scale scores were created by summing and averaging items. Higher scores indicate higher levels of the construct. The instruments are described below in order of their appearance in the model. Table 2 contains the reliability estimates for the scales and the correlations between the variables.

LMX Quality

Liden and Maslyn's⁴³ 12-item Leader-Member Exchange-Multidimensional Measure (LMX-MDM) was used to measure the 4 dimensions of LMX (affect, loyalty, contribution, and professional respect). The items were rated on a 7-point scale from "strongly disagree" (1) to "strongly agree" (7). Cronbach α for the total LMX-MDM has been reported as .92 and was .94 in this study. Exploratory and confirmatory factor analyses have demonstrated the validity of the LMX-MDM.

Structural Empowerment

Structural empowerment was measured using the Conditions for Work Effectiveness Questionnaire-II,

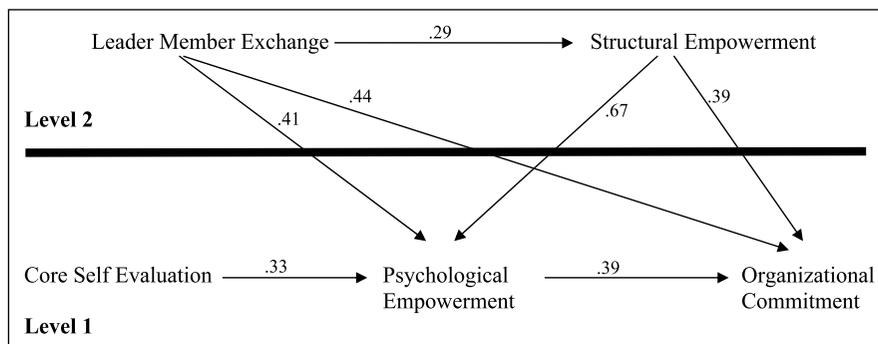


Figure 1. Results of the hypothesized model.

Table 1. Demographic Characteristics

Variable	Mean	SD
Age, y	42.00	10.21
Years of working as a nurse	16.95	10.86
Years of working on a unit	10.89	9.25
Variable	No.	%
Sex		
Female	2,998	95.3
Male	147	4.7
Specialty		
Medical-surgical	1,235	40.9
Critical care	1,045	34.6
Maternal-child	526	17.4
Mental health	184	6.1
Rehabilitation	31	1.0
Education		
Diploma	2,294	72.8
Degree	856	27.2

which consists of 19 items measuring the 6 dimensions of empowerment that are combined to provide an overall empowerment score.¹¹ Each item was measured on a 5-point scale, with responses ranging from “none” to “a lot.” The Cronbach α for the overall scale was .87 (subscale range, .85-.89), consistent with that found in previous research.

Core Self-evaluation

The 12-item CSE scale⁴⁴ was used. Although, conceptually, the scale covers the dimensions of self-esteem, generalized self-efficacy, emotional stability, and locus of control, the items “were not written to be ‘pure’ indicators of the individual core traits.”^{44(p 314)} Instead, they were intended to reflect the broader concept behind CSE. Items are rated on a 7-point scale ranging from “strongly disagree” to “strongly agree.” Judge et al⁴⁴ found acceptable scale reliability and a unitary factor

structure. The CSE scale correlated with job satisfaction, job performance, and life satisfaction. In this study, the Cronbach α was .69.

Psychological Empowerment

Spreitzer’s⁹ 12-item Psychological Empowerment Scale was used to measure the 4 components of psychological empowerment construct: meaningful work, competence, autonomy, and impact. Items are rated on a 5-point Likert scale. Spreitzer⁹ established evidence of convergent and divergent validity in a study of managers and nonmanagement personnel. Laschinger et al¹¹ further validated the proposed factor structure in a confirmatory factor analysis. In this study, α reliabilities ranged from .70 to .90.

Organizational Commitment

Organizational commitment was measured using the Affective Commitment Scale.⁴⁵ Six items are measured on a 7-point scale ranging from “strongly disagree” (1) to “strongly agree” (7). Acceptable reliability and construct validity for this subscale have been reported by Meyer et al.⁴⁵ In this study, the reliability coefficient was .79.

Analysis

The model was tested using multilevel structural equation modeling techniques.⁴⁶ Descriptive statistics and reliability analyses are presented in Table 1.

Results

The 2-level path analysis model was tested using multilevel structural equation modeling techniques for complex survey data.⁴⁶ This analysis allowed us to test a hypothesized causal model for job commitment consisting of effects at both the individual (nurse) and group (hospital unit) levels of analysis

Table 2. Means, SDs, Cronbach α , and Correlations of Variables

Variable	Mean	SD	α	Level 1 (Nurses)					Level 2 (Units)
				1	2	3	4	5	Unit Empowerment
1. Organizational commitment	3.52	1.14	.82	–					
2. Psychological empowerment	3.89	0.49	.90	0.41	–				
3. CSE	5.21	0.78	.92	0.21	0.33	–			
4. Years in nursing	16.90	10.88	N/A	0.08	0.13	0.05	–		
5. Structural empowerment	19.44	2.07	.87	0.35	0.39	0.12	–0.06	–	
6. LMX	4.41	0.68	.94	0.37	0.36	0.13	–0.04	0.36	0.29

Abbreviations: CSE, core self-evaluation; LMX, leader-member exchange theory.

and effects across levels. This technique models the nonindependence of observations due to cluster sampling by specifying a model for each level of the multilevel data.⁴⁷⁻⁴⁹

We used procedures recommended by Hoffman et al⁵⁰ and Klein et al⁵¹ to justify aggregation of measures of structural empowerment and LMX quality. We calculated the *rwg*, a measure that compares the amount of within-group agreement with a null distribution.^{52,53} Because the within-group agreement was greater than what would be expected by chance (the average *rwg* for structural empowerment and for LMX quality were 0.93 and 0.77, respectively) and the Intraclass Correlation (Two) for structural empowerment and LMX quality were 0.84 and 0.77, respectively, we aggregated these measures to the group level to reflect shared views of LMX and empowerment.

The model was estimated using the Mplus program,⁴⁶ which integrates random effects and other continuous latent variables within a single analysis model. To determine whether across-level analysis was justified, we first examined the extent of between- and within-group variability in nurses' psychological empowerment and job commitment. The ratio of the between-unit variance to the total variance for these variables (ρ) was substantial (0.054, and 0.098, respectively). Thus, we proceeded with an intercepts-as-outcomes model with both individual-level and group-level predictors to assess whether these predictors could account for the variance in psychological empowerment and job commitment. Years of experience was included in the model as an individual-level control variable.

The results revealed a good fit of the hypothesized model to the observed relations in the data ($\chi^2_5 = 31.734$, Cumulative Fit Index (CFI) = 0.976, Tucker Lewis Index (TLI) = 0.922, Root Mean Square Error of Approximation (RMSEA) = 0.041). As predicted, in the individual-level part of the model, CSE had a significant positive effect on psychological empowerment ($\beta = .333$), which in turn had a significant positive influence on organizational commitment ($\beta = .386$). At level 2 (unit level), LMX quality had a significant direct effect on structural empowerment ($\beta = .292$), which in turn had a significant direct effect on individual-level nurses' psychological empowerment ($\beta = .672$) and job commitment ($\beta = .392$). Leader-member exchange quality also had statistically significant direct ($\beta = .412$) and indirect ($\beta = .196$) effects on nurses' psychological empowerment and statistically significant direct ($\beta = .437$) and indirect ($\beta = .115$) effects on job commitment (see Figure 1). Level 1 predictors explained 15.6%

of the level 1 variance in job commitment and 13.4% of the level 1 variance in psychological empowerment. Level 2 predictors explained 44.5% of level 2 variance in job commitment and 78.3% of level 2 variance in psychological empowerment.

Discussion

The results of this study provide support for a multilevel model of organizational commitment in nursing that demonstrates both unit-level (contextual) and individual-level predictors of staff nurse organizational commitment. Unit-level LMX quality and unit-level structural empowerment positively influence staff nurses' feelings of psychological empowerment and organizational commitment at the individual level. This highlights the importance of unit leadership in creating empowering work conditions on their units that can influence individual nurses' responses to the workplace and, ultimately, their commitment to the organization. Given the strong link of organizational commitment to turnover among nurses, this is an important finding in light of the workforce shortage in nursing. Furthermore, we found that shared views of LMX quality at the unit level had a significant effect on unit-level or shared views of structural empowerment on the unit, providing evidence of the importance of contextual factors within specific units. Although this effect has been demonstrated at an individual level of analysis,²⁹ few studies have demonstrated specific contextual effects of nurses nested within their work units.

The across-level effects established in this study highlight the importance of unit-specific characteristics on individual staff nurse experiences of their work. These results are consistent with the argument of Seibert et al²⁴ and Kirkman and Rosen⁷ that structural empowerment may be seen as a macro-level variable reflecting the combined experience of employees working in discrete work groups, which influence individual outcomes. Seibert et al²⁴ linked team-level empowerment to individual members' psychological empowerment, consistent with our results. Our results also demonstrated that shared feelings of LMX quality at the unit level of analysis have important effects at both the unit level and on nurses within those units. Although LMX quality has been shown to relate to employee work attitudes at the individual level of analysis,^{25,29} these relationships rarely have been studied at the unit level of analysis. These results suggest that group effects are important to understanding the context within which leadership takes place.

Our results also revealed the importance of a personal dispositional variable, CSE, on nurses'

interpretation of their work environments. Judge and Bono³⁸ called for researchers to investigate intervening mechanisms linking CSE to work attitudes. Our results suggest that psychological environment plays a mediating role and suggests another mechanism through which personal beliefs about one's self can influence work attitudes, in this case, organizational commitment.

The contextual effects observed in this study highlight the importance of leadership for creating conditions that result in an engaged and committed workforce. Nurse managers play an important role in ensuring that nurses are empowered to practice according to professional standards, a key factor in nurses' job satisfaction.⁴ Our results show that the quality of the relationship between nurses and their unit managers is critical to creating empowering work environments that promote commitment of nurses both directly and by increasing their feelings of psychological empowerment. Our results also suggest that management must also take employees' core beliefs about themselves into account when designing meaningful work environments in nursing settings.

Limitations

The findings of this study must be viewed with caution given the cross-sectional nature of the study design, which precludes strong statements of cause and effect.⁵⁴ Common method variance also is a concern because the same subject completed all measures, although Spector⁵⁵ argues that method variance is more of a problem with single item or poorly designed scales and less of a problem when well-designed multi-item validated scales are used.

Conclusion

Remarkably, little research has investigated the impact of specific work-unit factors on nurses within those units. This study provides a comprehensive theoretical understanding of how leadership affects both unit- and individual-level outcomes. The results suggest that context matters and that unit leadership can make a difference in determining whether nurses stay or leave. In other words, leaders who create work units that empower their employees can help address the current nursing workforce shortage.

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