

How Leader-Follower Relations Influence Nurses' Intention to Stay: An Investigation in a Thai Sample

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Abstract

The purpose of this study was to investigate how leader-follower relations may affect nurses' intention to stay by proposing and testing a serial mediation model. Using anonymous questionnaire survey, the sample consisted of 403 registered nurses from private hospitals in Thailand. The PROCESS macro (Model 6) was used to test the hypotheses regarding the serial mediating effects. As predicted, the results indicate that leader-follower relations have both direct and indirect effects on nurses' intention to stay. Moreover, the relationship between leader-follower relations and intention to stay is serially mediated by psychological empowerment, work-life balance, and career satisfaction. It was concluded that the presence of high-quality leader-follower relations create a supportive work context in which nurses are more psychologically empowered, experience greater work-life balance, feel more satisfied with their career, and are more likely to stay at their job.

Keywords: Intention to stay; Leader-follower relations; Psychological empowerment; Career satisfaction.



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1. Introduction

The severity of the nursing shortage around the world has been continued for over 30 years (Cowden *et al.*, 2011). One of the main reasons for the nursing shortage is nurse turnover (Beecroft *et al.*, 2008). In USA, a study reveals that an estimated 17.5 percent of newly-licensed registered nurses leave their first nursing job within the first year and one in three (33.5%) leave within two years (Kovner *et al.*, 2014). In Thailand, a study shows that 48.7 percent of registered nurses quit their job within the first year and 25.6 percent leave within two years (Khunthar *et al.*, 2013). Nurse turnover has been linked to poor health-care quality, decreased morale, decreased productivity, and increased potential for injuries (Health Canada, 2007). Several studies have been devoted to understanding this nursing shortage in terms of what contributes to nurse turnover (Han and Jekel, 2011). These studies predominantly focused on the factors influencing nurses' reasons for quitting their job. It is, however, not clear whether the factors influencing nurses' voluntary turnover are the same as the factors that influence their staying.

Nevertheless, promotion of nurse retention as an approach to ensuring an adequate supply of nurses is very important. The Canadian Nurses Association estimates that reducing exit rates to 2% for all registered nurses would reduce the shortage by close to half by 2022 (Canadian Federation of Nurses Union, 2011). Many hospitals and health-care agencies have implemented strategies to retain nursing staff (e.g., shared decision making, flexible work schedules); there is, however, no retention strategy directly affected nurses' intention to stay in their jobs (Ellenbecker *et al.*, 2007).

Upon reviewing previous literature, we found a few studies that focused on factors affecting nurses' intention to stay. Boyle *et al.* (1999), reported that job satisfaction had the strongest influence on intention to stay, but also that nurse-manager leadership style directly influenced nurse intention to stay. Similarly, Sourdif (2004) found that work satisfaction and satisfaction with administration were the most significant predictors of intention to stay. In Canada, Tourangeau *et al.* (2010) found several determinants influencing nurses' intent to stay, including work rewards, relationships with co-workers, relationship with and support from one's manager. In China, Liu and Liu (2016) surveyed nurses from six nonprofit organizations and found that perceived organizational support, career success, and self-esteem can increase nurses' intention to remain. Recently, Van Osch *et al.* (2018) conducted a study in Western Canada and suggested that factors promoting nurses' intention to stay may be clustered into four main themes: leadership, interprofessional relationships, job fit and practice environment. In Japan, Eltaybani *et al.* (2018) surveyed staff nurses and nurse managers from the long-term care wards of 257 hospitals. They found that nurses' intention to stay was positively associated with work engagement, getting support from nurse managers, perceived quality of care process, and educational opportunities. Thus, it could be summarized that job/career satisfaction and managerial support were the two important predictors of nurses' intention to stay.

Unfortunately, previous scholars have had limited success in explaining determinants of nurses' intent to stay; only 22-52% of the variation in nurses' intent to stay was explained (Tourangeau *et al.*, 2010). Thus, there still are unknown factors influencing nurses' intention to stay. In order to address this gap, this paper focuses on new research exploring factors influencing nurses' intention to stay. Specifically, the present study investigates how leader-follower relations and other related-factors (i.e., psychological empowerment, work-life balance, and career

satisfaction) can work synergistically to influence nurse retention. The first contribution of this study is that it investigates how leader-follower relations may affect nurses' intention to stay. Second, the present study investigates the serial mediating effects of psychological empowerment, work-life balance, and career satisfaction on the association between leader-follower relations and intention to stay.

2. Theoretical Background and Hypotheses

2.1. Leader-Follower Relations

Leader-member exchange (LMX) theory (Graen and Uhl, 1995) provides the theoretical basis for examining leader-follower relations in this study. LMX theory states that leaders develop separate relationships with followers through a series of work-related exchanges, and essentially have different relationships with each of their followers (Graen and Scandura, 1987). Essentially, leaders communicate role expectations to followers through work assignments. To the extent that followers fulfil these role expectations, leaders reciprocate by providing work-related resources, challenging work assignments, and increasing followers' autonomy (Graen and Scandura, 1987). These leader-follower relations could range from those which are based on an employment contract (low-quality exchanges) to those which include the exchange of both material and non-material goods that go well beyond an employment contract (high-quality exchanges). In high-quality relationships, followers receive several advantages including discretion, latitude, information, influence on decisions, support, attention, feedback, respect, recognition and rewards, and career opportunities (Van Breukelen *et al.*, 2006). The outcomes of high-quality leader-follower relations include job satisfaction, organizational commitment, intention to stay, and organizational citizenship behaviors (Graen and Uhl, 1995). In contrast, low-quality relationships are associated with low job satisfaction, low organizational commitment, and high rates of turnover (Graen and Uhl, 1995). Thus, our first hypothesis is "leader-follower relations will have a positive effect on intention to stay."

2.2. Psychological Empowerment

Psychological empowerment is defined as intrinsic motivation manifested in four cognitions: meaning, competence, self-determination, and impact (Thomas and Velthouse, 1990). Meaning refers to congruence between requirements of a work role and an individual's beliefs, values, and behaviors. Competence is an individual's belief in his or her ability to perform tasks successfully. Self-determination is an individual's perception on the autonomy in the initiation and continuation of work behaviors and processes. Impact refers to the extent to which an individual's work can influence strategic, administrative, or operating outcomes at work (Spreitzer, 1995). When individuals are psychologically empowered, they are internally motivated to do their work.

Research has indicated that high-quality exchanges are associated with good role clarity (Bauer *et al.*, 2006); which in turn has positive influence on psychological empowerment (Hall, 2008). In addition, allowing individuals to have autonomy in decision making relates to high-quality relations experienced by subordinates and enhanced empowerment cognitions (Aryee and Chen, 2006). High-quality exchanges are therefore associated with higher feelings of psychological empowerment (Laschinger *et al.*, 2009).

Psychological empowerment has also been found to have a positive relationship with nurses' intention to stay (Hewko *et al.*, 2015). As psychological empowerment is associated with both leader-follower relations and intention to stay and leader-follower relations is a predictor of psychological empowerment, our second hypothesis is "psychological empowerment will mediate the effect of leader-follower relations on intention to stay."

2.3. Work-Life Balance

Work-life balance has been defined in different ways by different researchers using diverse dimensions. The present study, however, investigates this concept based on Brough *et al.* (2014) definition. They defined work-life balance as "an individual's subjective appraisal of the accord between his/her work and non-work activities and life more generally" (p. 5). This definition assumes that work-life balance is a resource which individuals can gain or lose this resource over time; and the assessment of this resource is subjective and cannot necessarily be verified through external observation (Brough *et al.*, 2014).

Major and Morganson (2011), proposed that subordinates in high-quality exchanges may negotiate roles with their leaders in a way that will minimize work-family interference. Their leaders would also provide more family-friendly options, or encourage subordinates to take advantage of family-friendly policies, resulting in work-life balance. Research has supported this proposition, high-quality exchanges lead to lower levels of hindrance stress, which resulted in lower levels of work-family conflict (Culbertson *et al.*, 2009).

Research has also demonstrated that there is a positive relationship between work-life balance and intention to stay (Deery, 2008). In addition, it was found that the relationship between work-life balance and turnover behaviors is generally stronger compared to the association between job satisfaction and balance (O'Driscoll *et al.*, 2011). Thus, the third hypothesis is "work-life balance will mediate the effect of leader-follower relations on intention to stay."

2.4. Career Satisfaction

Career satisfaction is the extent to which individuals believe their career progress is consistent with their goals, values, and preferences (Feldman and Ng, 2007). Thus, career satisfaction includes an individual's reactions to actual and anticipated career-related achievements across a broader time frame than one's immediate job satisfaction (Greenhaus *et al.*, 2000).

Since subordinates in high-quality exchanges tend to have a trust-based relationship with their supervisors (Graen and Uhl, 1995), they tend to get more resources and support from their supervisors. This would contribute to employees' career satisfaction. Studies has found that employees in high-quality exchanges had significantly greater job and career satisfaction in comparison to employees in low-quality exchanges (Jiang and Klein, 1999).

Career satisfaction has also been found to have a positive relationship with intention to stay. For example, Ding and Lin (2006) found that career satisfaction and job satisfaction have the most significant effects on turnover intentions, with organizational commitment mediating the relationship. Similarly, Cho and Sung (2011) studied small and medium construction IT workers and found that the higher career satisfaction, the higher job satisfaction the employees have, and the less turnover intention they have. Thus, the fourth hypothesis is "Career satisfaction will mediate the effect of leader-follower relations on intention to stay."

2.5. The Serial Mediation Hypothesis

Finally, we posit that psychological empowerment, work-life balance, and career satisfaction serially mediate the effect of leader-follower relations on intention to stay. Our reasoning builds on the assumption that intention to stay is a psychological state that can be influenced by situational factors, such as through the exposure to a favorable environment. We suggest that psychological empowerment, work-life balance, and career satisfaction represent critical situational factors that can promote intention to stay. Thus, the fifth hypothesis is "Psychological empowerment, work-life balance, and career satisfaction serially mediate the effect of leader-follower relations on intention to stay."

3. Method

3.1. Sample

The research sample consisted of 403 registered nurses from private hospitals in Thailand. About 60% of the sample was female, with a mean age of 36.99 years. The average tenure in their career was 12.98 years.

3.2. Measures

(1) Leader-follower relations. The 7-item measure of LMX-7 developed by Graen and Uhl (1995) was used to assess leader-follower relations. Responses were made on a 5-point scale ranging from 0 (strongly disagree) to 5 (strongly agree). Cronbach's alpha for the scale was .89.

(2) Psychological empowerment. The 12-item scale developed by Spreitzer (1995) was used to assess psychological empowerment. Participants were asked to indicate, using 5-point scales (1 = strongly disagree, 5 = strongly agree). Cronbach's alpha was .85.

(3) Work-life balance. The 4-item scale developed by Brough *et al.* (2014). Participants were asked to indicate, using 5-point scales (1 = strongly disagree, 5 = strongly agree). Cronbach's alpha for the scale was .82.

(4) Career satisfaction. The 5-item scale developed by Greenhaus *et al.* (1990). Responses were made on a 5-point scale ranging from 0 (strongly disagree) to 5 (strongly agree). Cronbach's alpha was .86.

(5) Intention to stay. The 4-item scale developed by Price and Mueller (1986). Participants were asked to indicate, using 5-point scales (1 = strongly disagree, 5 = strongly agree). Internal consistency reliability of the scale was .90.

(6) Demographic information sheet. The demographic information sheet asked participants to indicate their gender, age, marital status, number of children, and job tenure.

4. Results

4.1. Confirmatory Factor Analysis

To examine whether leader-follower relations, psychological empowerment, work-life balance, career satisfaction and intention to stay captured different constructs, a series of confirmatory factor analyses (CFA) was conducted by using AMOS 21. Five different models including the five proposed factors (i.e., leader-follower relations, psychological empowerment, work-life balance, career satisfaction and intention to stay) were compared. The five factor model [$\chi^2(357) = 902.93, p < .01, CFI = .92, TLI = .90, GFI = .87, RMSEA = .06$] was superior to the two four-factor models considered, where we combined psychological empowerment, work-life balance [$\chi^2(458) = 1946.71, p < .01, CFI = .79, TLI = .77, GFI = .73, RMSEA = .09$] and career satisfaction and intention to stay, respectively [$\chi^2(458) = 2033.26, p < .01, CFI = .78, TLI = .76, GFI = .71, RMSEA = .09$], and to the one-factor model where all the items were loaded onto one single factor [$\chi^2(464) = 2931.21, p < .01, CFI = .65, TLI = .63, GFI = .63, RMSEA = .12$]. Based on the CFA, three items from the psychological empowerment scale however were dropped due to low standardized loading estimates during CFA. The factor loadings of the items for the five proposed factors ranged between .51 and .90. These results support the discriminant validity of study variables. Common method bias was therefore not an apparent concern in this study.

Table 1 shows intercorrelations among the study variables. This correlation matrix indicates that significant positive relations were found between leader-follower relations and intention to stay ($r = .51, p < .01$), between psychological empowerment and intention to stay ($r = .60, p < .01$), between work-life balance and intention to stay ($r = .44, p < .01$), and between career satisfaction and intention to stay ($r = .57, p < .01$).

Table-1. Means, Standard Deviations, and Correlations Between Variables

Variables	M	SD	1	2	3	4	5
1. Leader-follower relations	3.79	.59	(.89)				
2. Psychological empowerment	3.86	.43	.64**	(.85)			
3. Work-life balance	3.43	.68	.41**	.46**	(.82)		
4. Career satisfaction	3.85	.56	.60**	.71**	.53**	(.86)	
5. Intention to stay	3.61	.78	.51**	.60**	.44**	.57**	(.90)

Note: ** $p < .01$, $n = 403$; Reliabilities of scales were in parentheses along diagonals.

4.2. Hypotheses Testing

All hypotheses were tested using PROCESS program which computes ordinary least square regressions to test for direct and indirect effects (Hayes and Preacher, 2013). We employed PROCESS Model 6 (serial mediation) to estimate regression coefficients and follow-up bootstrap analyses with 5,000 bootstrap samples to estimate 95% bias-corrected confidence intervals for specific and total indirect effects. Serial mediation assumes that there is a causal chain linking the mediators, with a specified direction of causal flow. Accordingly, intention to stay was entered as the outcome variable, leader-follower relations as the predictor, and psychological empowerment, work-life balance, and career satisfaction as the three serial mediators.

The standardized regression coefficients are displayed in Table 2. Leader-follower relations significantly predicted intention to stay ($\beta = .13, p < .001$) which support Hypothesis 1. Leader-follower relations also significantly predicted psychological empowerment ($\beta = .65, p < .001$), work-life balance ($\beta = .19, p < .001$), career satisfaction ($\beta = .19, p < .001$). The results showed that psychological empowerment had a positive effect on work-life balance ($\beta = .35, p < .001$), career satisfaction ($\beta = .51, p < .001$), and intention to stay ($\beta = .30, p < .001$). Work-life balance was also found to have a positive effect on career satisfaction ($\beta = .21, p < .001$), and intention to stay ($\beta = .14, p < .01$). Moreover, career satisfaction significantly predicted intention to stay ($\beta = .20, p < .001$).

To test Hypothesis 2-5, we calculated specific and total indirect effects of leader-follower relations on intention to stay through one mediator and through the four serial mediators. The total effect of leader-follower relations on intention to stay was significant, ($\beta = .38, p < .001$). The direct effect of leader-follower relations on intention to stay continued to emerge even after controlling the impacts of the other three variables ($\beta = .13, p < .05$).

Table-2. Results of Serial Mediation Analysis

	PE		WLB		CS		IS	
	β	95%CI	β	95%CI	β	95%CI	β	95%CI
LFR	.65***	.57, .72	.19***	.07, .30	.19***	.11, .27	.13*	.03, .23
PE			.35***	.24, .46	.51***	.42, .59	.30***	.18, .42
WLB					.21***	.14, .28	.14**	.05, .23
CS							.20***	.08, .32
	$R^2 = .42$ ***		$R^2 = .24$ ***		$R^2 = .59$ ***		$R^2 = .43$ ***	
			<i>B</i>		<i>SE</i>		<i>CI</i>	
Direct of LFR on IS			.13*		.05		.03, .23	
			<i>B</i>		Boot SE		Boot CI	
Indirect of LFR on IS								
Total			.38		.05		.29, .47	
Indirect LFR→PE→IS			.20		.04		.11, .29	
Indirect LFR→PE→WLB→IS			.03		.01		.01, .07	
Indirect LFR→PE→CS→IS			.07		.03		.02, .12	
Indirect LFR→PE→WLB→CS			.01		.01		.01, .02	
Indirect LFR→WLB→IS			.03		.02		.01, .07	
Indirect LFR→WLB→CS→IS			.01		.01		.01, .02	
Indirect LFR→CS→IS			.04		.02		.01, .08	

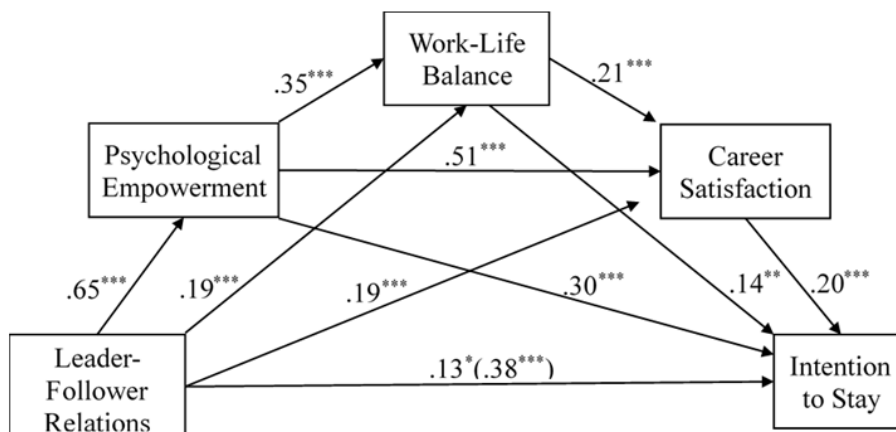
Note: LFR = leader-follower relations, PE = psychological empowerment, WLB = work-life balance, CS = career satisfaction, IS = intention to stay; Standardized regression coefficients are reported; Listwise N = 403; Bootstrap sample size = 5,000; CI = Confidence Interval; * $p < .05$, ** $p < .01$, *** $p < .001$ of the other three variables ($\beta = .13, p < .05$).

The specific indirect effects of leader-follower relations on intention to stay via psychological empowerment (.20), work-life balance (.03), and career satisfaction (.04) were statistically different from zero with 95% confidence. These findings, therefore, support Hypothesis 2-4. Furthermore, the indirect effect of leader-follower relations on intention to stay via psychological empowerment, work-life balance, and career satisfaction (.01) was statistically different from zero with 95% confidence (CI = .01, .02). Thus, this finding confirms Hypothesis 5. Figure 1 shows effects of leader-follower relations, psychological empowerment, work-life balance, and career satisfaction on intention to stay.

5. Discussion

The present findings contribute in several ways to understanding the effect of leader-follower relations on nurses' intention to stay. First, the results show that leader-follower relations have both direct and indirect effects on nurses' intention to stay.

Figure-1. Serial mediation model



to stay. Second, the main contribution of this study pertains to the results of the serial mediation model. The evidence is found in favor of the four hypothesized indirect effects: (1) leader-follower relations → psychological empowerment → intention to stay, (2) leader-follower relations → work-life balance → intention to stay, (3) leader-follower relations → career satisfaction → intention to stay, and (4) leader-follower relations → psychological empowerment → work-life balance → career satisfaction → intention to stay.

Consistent with previous research, high-quality exchanges have a positive effect on psychological empowerment (Laschinger *et al.*, 2009); work-life balance (Culbertson *et al.*, 2009); career satisfaction (e.g., Sagas & Cunningham, 2004), and intention to stay (Graen and Uhl, 1995). This is because high-quality exchanges are characterized by mutual trust, positive support, greater job latitude, open communication, high degree of autonomy and satisfaction, (Graen and Uhl, 1995). Thus, high-quality exchanges are likely to increase intention to stay because such behavior allows subordinates to pay back the support and respect from their leaders (Graen and Uhl, 1995). Moreover, in line with past findings, psychological empowerment, work-life balance, and career satisfaction are found to mediate the relationship between leadership practices and positive work behaviors (Haar *et al.*, 2017; Jawahar and Stone, 2015). In other words, when subordinates have a good relationship with their supervisors, they are allowed to have greater autonomy to perform tasks, which lead them to have more work-life balance and career satisfaction. These favorable conditions, in turn, lead to higher levels of intention to stay.

The results of the present study suggest that the leader-member exchange (LMX) framework is also applicable in the Thai context. According to Hofstede's study of cultural dimensions (Hofstede, 2001), Thailand is culturally different from western countries. This is more collectivist than Europeans and Americans and more accepting of enduring power differentials. In terms of subordinate-superior relationship, it is of the nature of a client-patron relationship. Subordinates always look up to and expect guidance and a duty of care from their superiors who in turn must show consideration and strong leadership (Kamoche, 2000). An "impersonal, cut-and-dry" managerial style, therefore, is not effective for Thai subordinates (Komin, 1991). Thus, the LMX framework is likely to receive a positive response from both Thai supervisors and subordinates. Aryee and Chen (2006) argue that a relational approach to leadership like leader-member exchange is particularly important in the relationship-oriented Asian cultures. As the term "leader-member exchange" implies, this relationship is grounded in social exchange. Social exchange, as opposed to economic exchange, commonly results in feelings of increased obligation, gratitude, and trust (Blau, 1964).

Since the present study used self-reports as means of data collection, respondents of this study therefore might give socially desirable responses. In addition, since all the data was cross-sectional, the causality can only be assumed but not confirmed. Future research employing longitudinal method and other ratings of behavior and attitudes could provide additional support for the current findings.

In terms of implications, this study reinforced the significance of the role of supervisors. By nurturing a good relationship with subordinates, supervisors can greatly enhance individuals' intention to stay. Moreover, organizations should specifically implement leadership development programs for their supervisors. These programs should emphasize the importance of empowerment skills, coaching skills, and human relations skills. Finally, to promote work-life balance, organizations could offer employees learning opportunities that decrease work-life conflict and improve career satisfaction.

5. Conclusion

This study extends the literature on nurses' intention to stay in several ways. First, our results demonstrate that the presence of high-quality exchanges create a supportive work context in which nurses are more psychologically empowered, experience greater work-life balance, feel more satisfied with their career, and are eventually more likely to stay at their job. Second, the serial mediation model offers new insights into the literature by revealing the possibilities of other pathways in explaining the relationship between leader-follower relations and nurses' intention to stay. In other words, this model enables us to understand the whole picture of the relationship by integrating relevant factors determining nurses' intention to stay. Third, the findings also imply the necessity to integrate factors that have been found to have an impact on the association between leader-follower relations and nurses' intention to stay in order to offer a more comprehensive viewpoint to the question why nurses who experience high-quality leader-follower relations tend to stay at their job.

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