

EXPLORING JOB EMBEDDEDNESS AND ITS IMPACT ON NURSE RETENTION THROUGH SELF-LEADERSHIP: EVIDENCE FROM INDONESIA

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ABSTRACT

The global healthcare sector faces significant challenges in retaining skilled nurses due to various factors that contribute to high turnover rates. These issues affect both public and private healthcare systems. Addressing them is crucial to ensuring quality patient care and sustainable healthcare services, especially as the demand for skilled healthcare workers continues to grow worldwide. This study examines the impact of job embeddedness and self-leadership on retention and turnover intentions among skilled nurses. This cross-sectional study involved 138 skilled nurses who met the inclusion criteria. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Job embeddedness significantly enhances nurse self-leadership ($\beta = 0.671$, $p < 0.001$) and intention to stay ($\beta = 0.658$, $p < 0.001$), promoting commitment, while negatively impacting turnover intention ($\beta = -0.312$, $p = 0.004$), suggesting its effectiveness in reducing turnover. Nurse self-leadership was not directly related to the intention to stay. The moderating effect of length of service on the relationship between self-leadership and intention to stay underscores the importance of customized retention strategies. Job embeddedness is essential for retaining skilled nurses, and healthcare facilities should foster a supportive environment that encourages connection and belonging.

Keywords: *Intention to stay; job embeddedness; nurse self-leadership; turnover intention*



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BACKGROUND

Nurses are essential to healthcare systems worldwide, ensuring patient care, safeguarding patient safety, and promoting health equity (Yang & Mahoney, 2023). The World Health Organization (WHO) projects a global shortage of 4.5 million nurses by 2030 (World Health Organization, 2024), a deficit that threatens care quality and health outcomes, while intensifying the burden on healthcare systems already struggling with increased workloads, burnout, and high turnover rates (Amelia et al., 2022; Antonio, Andy, & Moksidi, 2024; Tawfik et al., 2019). In many low- and middle-income countries, this shortage further complicates efforts to meet escalating healthcare demands, placing considerable strain on existing staff.

Paradoxically, Indonesia faces a unique type of overall nurse shortage, despite having a surplus of nursing graduates (Efendi et al., 2022). However, the country experiences a shortage of skilled nurses, particularly in areas such as

Jakarta, where the rapid growth of private hospitals (Ministry of Health, 2019) has increased the demand for experienced, skilled nurses. These challenges underscore the importance of effective retention strategies to reduce turnover and maintain a stable, skilled nursing workforce, which is essential for continuing to provide quality patient care in an increasingly competitive environment.

Intention to stay and turnover intention are critical constructs for understanding nurse retention, representing positive and negative outcomes, respectively. While intention to stay reflects a nurse's commitment to remain, turnover intention indicates the likelihood of leaving due to dissatisfaction or disengagement (Labrague & de Los Santos, 2020; Kwon & Park, 2020). These constructs, although distinct, often coexist in experienced nurses who are attuned to workplace dynamics, requiring their concurrent examination to fully capture the complexities of retention (Al Sabei et al., 2019). Human capital interventions can differentially influence these

constructs, with intrinsic strategies such as job embeddedness and self-leadership potentially enhancing commitment and reducing turnover intention (Ampofo & Karatepe, 2021; Ha & Ko, 2020). Therefore, this study integrates both constructs to provide a nuanced approach to nurse retention, especially among experienced nurses whose values align with organizational goals.

Job embeddedness is a key predictor of employee retention, encompassing the extent to which employees feel integrated within their organization and community (Kiazad et al., 2015). This concept is defined by its three dimensions: *fit*, which is the alignment with the job and organizational culture, *links* connections within the workplace and outside, and *sacrifice*, as in the perceived costs of leaving (Kiazad et al., 2015). Research shows that nurses with high job embeddedness are more likely to remain in their positions, as their deep-rooted connections within the organization reduce turnover intentions and enhance job commitment (Wang et al., 2024; Choi & Lee, 2018). Recent research also highlights that job embeddedness, when coupled with self-efficacy, can strengthen psychological empowerment and reinforce motivation to stay within the organization (Wang et al., 2025). While numerous studies in Western and Asian contexts have examined job embeddedness, self-leadership, and retention, empirical research in Indonesia remains limited, particularly regarding how these constructs interact within internationally accredited private hospitals. Most Indonesian studies have primarily focused on nurse shortages and turnover rates, neglecting the psychological mechanisms underlying retention. A recent study confirmed the link between job embeddedness and turnover intention in the Indonesian context (Artiningsih et al. 2023), yet research combining these constructs among nurses in accredited private hospitals is still scarce. Most Indonesian studies have focused primarily on nurse shortages and turnover rates, overlooking the psychological mechanisms that underpin retention. This study addresses this critical gap by investigating the interplay between job embeddedness, self-leadership, and length of service among nurses in internationally accredited private hospitals, offering a context-specific understanding of retention dynamics in Indonesia's evolving healthcare landscape.

Skilled nurses working in high-stress healthcare environments benefit significantly from internal resilience and adaptability. Research shows that self-leadership enhances job satisfaction (Deci, Olafsen, & Ryan, 2017) and strengthens commitment to their organizations (Kwon & Park, 2020). Self-leadership refers to a process of self-influence by which individuals intentionally influence their own cognitions and behaviors to achieve self-direction and self-motivation necessary to perform (Goldsby et al., 2021). This construct contains three primary strategy clusters: behavior-focused strategies (e.g., goal-setting, self-observation, self-reward), natural-reward strategies (modifying task features to increase intrinsic enjoyment), and constructive thought-pattern strategies (such as positive self-talk and cognitive reappraisal). In nursing, self-leadership has been theorized to support adaptive coping, proactive performance, and personal accountability in complex clinical contexts, thereby contributing to job satisfaction and organizational commitment (Goldsby et al., 2020; Pursio et al., 2025). By explicitly linking self-regulatory processes to retention outcomes, we conceptualize self-leadership as an individual-level mechanism through which job embeddedness can translate into a greater intention to remain and reduced turnover intention among skilled nurses.

Additionally, self-leadership in nurses has been linked to higher job satisfaction and more substantial organizational commitment (Goldsby, Goldsby, & Neck, 2020) as its key dimensions enable nurses to reframe negativity, enhancing resilience in demanding situations (Goldsby et al., 2021). Therefore, self-leadership is expected to mediate the role of job embeddedness in promoting nurse retention which in turn leads to reduced turnover intentions.

Research indicates that experienced nurses who engage in professional development tend to exhibit higher organizational commitment (Fackler, 2019). Moreover, nurses with longer service durations demonstrate greater moral resilience, which correlates with reduced turnover intentions (Yi, Chen, Jimenez-Herrera, Gan, & Ren, 2024). It is assumed that as nurses accumulate years of service, their attachment to the organization collectively strengthens, positioning length of service as a pivotal variable for analyzing retention dynamics within high-stress healthcare environments. Consequently, length of service is incorporated as a mediating variable in this study to provide a more nuanced understanding of skilled nurse retention.

This study explores the relationship between job embeddedness, intention to stay, and turnover intention. Its novel contribution lies in highlighting self-leadership as a mediating variable, providing new insights into individual self-regulation capabilities that amplify the impact of job embeddedness. These findings are expected to be particularly significant for the nursing management, helping to improve staff retention and reduce high turnover rates, ultimately supporting the sustainability of healthcare services.

METHOD

Study design

This study was a quantitative, cross-sectional survey design, utilizing purposive sampling to target skilled nurses working in private hospitals.

Population and sample

The unit of analysis consisted of nursing personnel who met specific inclusion criteria: direct patient-care nurses actively employed by the hospital with a minimum of two years of service. Participants were nurses assigned to specialized units such as the operating room, ICU, ICCU, PICU, NICU, Cath lab, hemodialysis, and oncology, all of whom had undergone specialized training relevant to their roles. Additionally, these nurses worked closely operating physicians and had no history of disciplinary warnings during their employment. These criteria were established to ensure that respondents could provide relevant information pertinent to the research objectives. The selection of two leading private hospitals was based on the availability of facilities and services requiring specialized nursing skills. The infrastructure supports operating physicians, with skilled nurses assisting in the delivery of medical services.

The sample size was determined through power analysis using the G*Power® software. Based on a medium effect size (f^2) of 0.15, with 95% power, an alpha level of 0.05, and five predictor variables, the total sample size of 138 was deemed appropriate. To minimize potential bias, inclusion criteria were clearly defined, including nurses with at least two years of work experience and direct involvement in patient care. Data collection was conducted across two hospitals to enhance contextual diversity. From a total of 150 distributed questionnaires, 138 completed and eligible responses were yielding an acceptable response rate of 92%.

Instruments

This research instruments employed a structured questionnaire consisting of closed-ended questions. A 1–5 Likert scale was used to quantify variables, and the question items were adapted to reflect the following key constructs: Job Embeddedness, which measure the nurses' attachment to the organization through the dimensions of "Fit," "Link," and "Sacrifice" (Mitchell et al., 2001); Self-Leadership, assessing nurses' self-leadership processes across three strategies: Behavior-Focused Strategy, Natural Rewards Strategy, and Constructive Thought Pattern Strategy (Houghton & Neck, 2002); Intention to Stay, representing nurses' desire to remain employed at the hospital (Yahyaie et al., 2024); Turnover Intention, indicating nurses' desire to leave their current employment (Alblihed & Alzghaibi, 2022); and Length of Service, defined as the number of years a nurse has been employed in their current position (Lin et al., 2024).

The adaptation process involved translating all items into English, followed by an expert linguistic review to ensure semantic accuracy and conceptual equivalence. The instrument then underwent content and face validity testing by a five-member expert panel, which comprised two academics, two registered nurse practitioners, and one senior researcher from the National Research and Innovation Agency. Based on their feedback, several items were refined to enhance clarity and contextual relevance.

The content validity ratio (CVR) values for all indicators exceeded 0.40, and the content validity index (CVI) was greater than 0.80, meeting the recommended methodological standards. A pilot test involving 30 nurses demonstrated strong internal consistency, with Cronbach's alpha values above 0.70 and average variance extracted (AVE) scores exceeding 0.50 across all constructs. After confirming validity and reliability, the finalized instrument was used for full-scale data collection. The research model was developed accordingly, as presented in Figure 1.

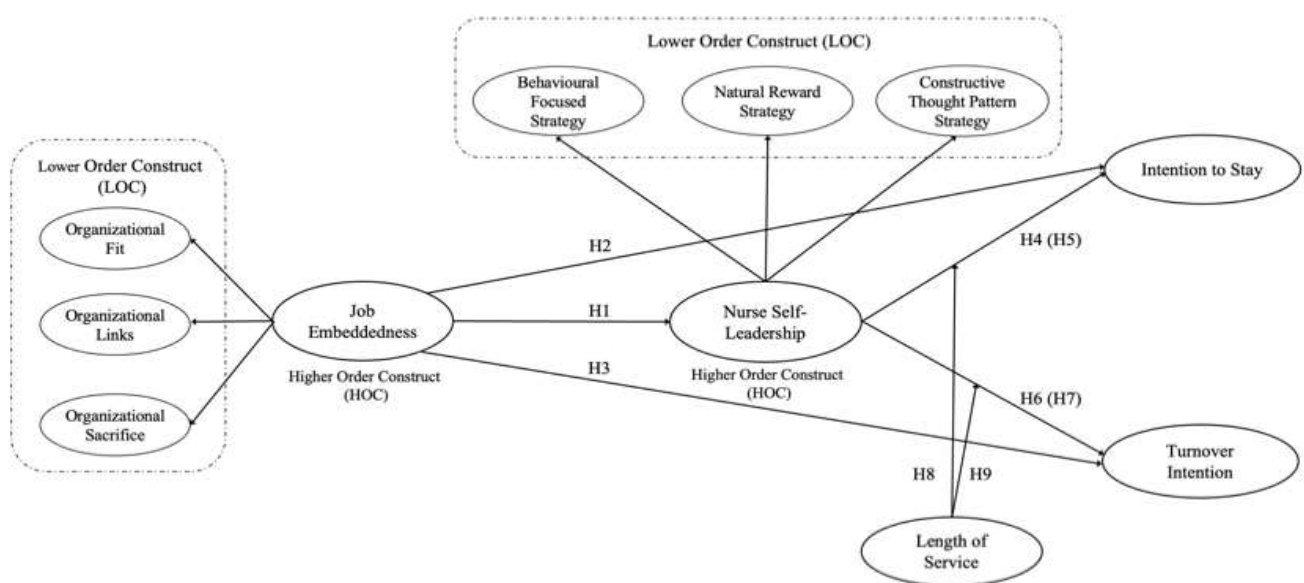


Figure 1. Research Mode

Data collection

An online questionnaire was utilized to collect data for this study in September 2024 at two branches of private hospitals located in West Jakarta and Tangerang, Banten. Both institutions are well-known in Indonesia, each with more than 200 beds and full accreditation by the Joint Commission International (JCI).

Data analysis

The PLS-SEM Disjoint Two-Stage Approach was selected for this study due to its ability to efficiently handle complex models with hierarchical constructs and multiple mediation paths (Sarstedt et al., 2019), enabling a more nuanced analysis of the relationships among job embeddedness, self-leadership, and nurse retention. The PLS-SEM approach was advised when the focus is on the model's predictive power (Hair et al., 2021). SmartPLS® version 4.1.0.8 was used for the analysis, as it offered a bootstrapping feature for significance testing.

Ethical considerations

This study was approved by the Research Ethics Committee of Pelita Harapan University (Code: 030/MARS/EC/X/2024). Participants were informed about the research objectives and assured that their information would remain confidential.

Moreover, they were entitled to withdraw from the study at any time, and the research results would be made available upon request.

RESULTS

As shown in Table 1, the demographic profile of the respondents indicates that the sample comprises 138 nurses, predominantly female (79%) and primarily married (62%). The age distribution reveals a significant concentration in the 25 to 35 years range (51%), with the majority holding professional nursing degrees (Registered Nurse, 61%) and a notable 32% possessing diplomas. The nurses are primarily assigned to the Operating Room (44%), followed by ICU/ICCU (26%) and NICU/PICU (14%). Regarding work experience, more than half (54%) have been employed for over seven years. This demographic overview provides valuable insight into the workforce composition and organizational context relevant to understanding job embeddedness, self-leadership, and retention factors among nurses in these hospitals.

The first-stage analysis assessed the reliability and validity of all constructs, including the dimensions of Job Embeddedness (Fit, Link, and Sacrifice) and Nurse Self-

Leadership (Behavioral-Focused Strategy, Constructive Thought Pattern Strategy, and Natural Rewards Strategy), referred to as Lower -Order Constructs (LOC), as well as Intention to Stay and Turnover Intention, as illustrated in Figure 2.

Table 1. Respondent Profile

Description	Categories	Sample (n)	Percentage (%)
Gender	Male	36	21
	Female	102	79
Marital Status	Married	86	62
	Single	52	38
Age	18 - < 25 years	14	10
	25 - < 35 years	70	51
	35 - < 45 years	38	27
	> 45 years	16	12
Education	Diploma (D3/D4)	44	32
	Bachelor (S1)	10	7

Description	Categories	Sample (n)	Percentage (%)
Work Unit	Registered Nurse (RN)	84	61
	Operating Room	60	44
	ICU/ICCU	36	26
	NICU/PICU	20	14
	Haemodialysis	6	4
	Cath Lab	4	3
	Oncology	5	4
	Endoscopy	7	5
Length of Service	2 - 7 years	64	46
	> 7 years	74	54
Total		138	100

The results, presented in Table 2, show that each construct exceeded the thresholds for internal consistency, with Cronbach's alpha and composite reliability values above 0.7, and Average Variance Extracted (AVE) values above 0.5, indicating convergent validity. Item loadings ranged from 0.627 to 0.933, reflecting strong construct representation. Overall, these findings confirm that the constructs reliably capture respondents' perceptions within the hospital setting.

Table 2. First Stage Reliability/ Validity

Variables	Codes	Indicators	Outer Loading
Fit	FIT 1	I like the members of my work group.	0.812
	FIT 2	I can reach my professional goals working for this hospital.	0.855
	FIT 3	I like the responsibility I have at this hospital.	0.900
	FIT 4	My values are compatible with the hospital's values.	0.847
	FIT 5	My job utilizes my talent and skills well.	0.791
	Mean 4.136; CA 0.897; Rho_a 0.900; AVE 0.709		
Link	LINK 1	I already feel at home working at this hospital.	0.760
	LINK 2	I have been working with my current team for a long time.	0.844
	LINK 3	I interact regularly with my team both inside and outside this hospital.	0.800
	LINK 4	I have a significant influence within this team.	0.862
		Mean 3.965; CA 0.835; Rho_a 0.848; AVE 0.668	
Sacrifice	SAC 1	I feel like people at work really respect me.	0.845
	SAC 2	I will sacrifice a lot if I leave this job.	0.810
	SAC 3	I am well compensated for my level of performance.	0.627
		Mean 3.546; CA 0.674; Rho_a 0.730; AVE 0.588	
Behavioral Focused Strategy	BFS 1	I am able to set personal targets (e.g., no lateness/zero absences) that I want to achieve.	0.890
	BFS 2	I am able to assess whether my work can still be improved.	0.874
	BFS 3	I am able to predict what the operator wants before it is asked.	0.815
		Mean 4.202; CA 0.823; Rho_a 0.827; AVE 0.74	
Constructive Thought Pattern Strategy	CTP 1	In difficult situations, I strengthen myself by telling myself that I can overcome it.	0.862
	CTP 2	I am open to discuss with my friends who have different opinions about the task at hand.	0.905
	CTP 3	When facing new input at work, I check its correctness first.	0.898
		Mean 4.202; CA 0.870; Rho_a 0.906; AVE 0.79	
Natural Rewards Strategy	NRS 1	If I successfully handle a difficult case, I can sleep or relax peacefully.	0.837
	NRS 2	If I succeed in a job that exceeds the operator's expectations, I will feel proud.	0.899
	NRS 3	If I get a bonus, I will consider it as a reward for my achievements.	0.772
		Mean 4.241; CA 0.786; Rho_a 0.792; AVE 0.702	
Intention to Stay	ITS 1	I feel comfortable with my current work.	0.828
	ITS 2	I will continue to work at this hospital even if there is an attractive new offer.	0.899
	ITS 3	I am committed to continue to work and develop my career at this hospital.	0.933
	ITS 4	I plan to continue working at this hospital as long as I am needed.	0.934
		Mean 3.863; CA 0.921; Rho_a 0.921; AVE 0.809	
Turnover Intention	TOI 1	I sometimes think I want to get out of this hospital.	0.877

Variables	Codes	Indicators	Outer Loading
	TOI 2	I dream of working in another, better hospital.	0.905
	TOI 3	I don't think I will survive working at this hospital if my "mental health" is disturbed.	0.827
	TOI 4	I will look for a new alternative hospital if I feel my work environment is toxic.	0.764
Mean 3.072; CA 0.867; Rho_a 0.889; AVE 0.714			
Length of Service	LOS	How long have you worked at this hospital	1.000

Note: CA: Cronbach's Alpha; Rho_a: Composite Reliability; AVE: Average Variance Extracted

The second-stage analysis confirmed the reliability and validity of the higher-order constructs (HOC), Job Embeddedness, and Nurse Self-Leadership. Outer loadings for their LOC were strong, ranging from 0.836 to 0.932. Both Cronbach's alpha and composite reliability was above 0.8, indicating internal consistency. The constructs demonstrated adequate convergent validity, with average variance extracted (AVE) values exceeding 0.7. Discriminant validity was established through the Heterotrait-Monotrait Ratio (HT/MT), which was below 0.85, as shown in Table 3, confirming that the constructs were distinct from one another.

These findings validate the robustness of the HOC within the model.

The Cross Validated Predictive Ability Test (CVPAT) presented in Table 4 further assessed the model's predictive power by comparing PLS-SEM with the Indicator Average (IA) and Linear Model (LM) benchmark (Hair et al., 2021). The results showed that PLS-SEM had significantly stronger predictive ability than IA, with an overall average loss difference of -0.282 ($p = 0.000$), while no significant difference was found when compared to LM ($p = 0.943$).

Table 3. Second Stage Discriminant Validity with HT/ MT ratio

	ITS	JE	LOS	NSL	TOI
ITS					
JE	0.843				
LOS	0.333	0.274			
NSL	0.580	0.795	0.089		
TOI	0.581	0.459	0.248	0.355	

Note: ITS: Intention to Stay, JE: Job Embeddedness, LOS: Length of Service, NSL: Nurse Self-Leadership, TOI: Turnover Intention

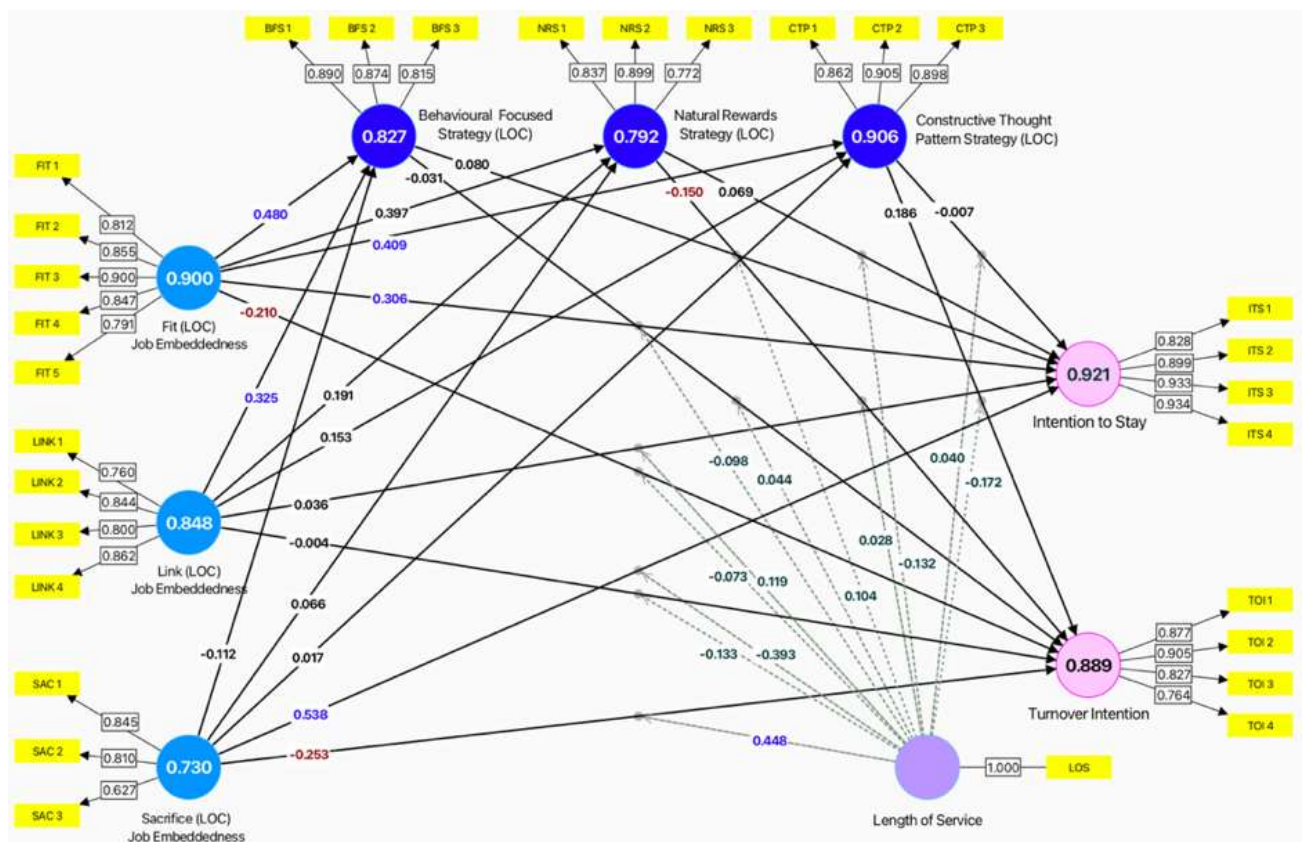


Figure 2. First Stage Outer Model

These findings indicate that PLS-SEM offers superior predictive performance relative to IA, thereby confirming its

predictive validity for the dependent variable. The next step in the analysis involves examining the second-stage inner

model, as depicted in Figure 3. This stage evaluates the relationships between latent constructs, focusing on path coefficients, significance levels, and the explanatory power of each endogenous variable. Key constructs such as job

embeddedness, nurse self-leadership, intention to stay, and turnover intention are assessed in terms of their direct and indirect effects within the model.

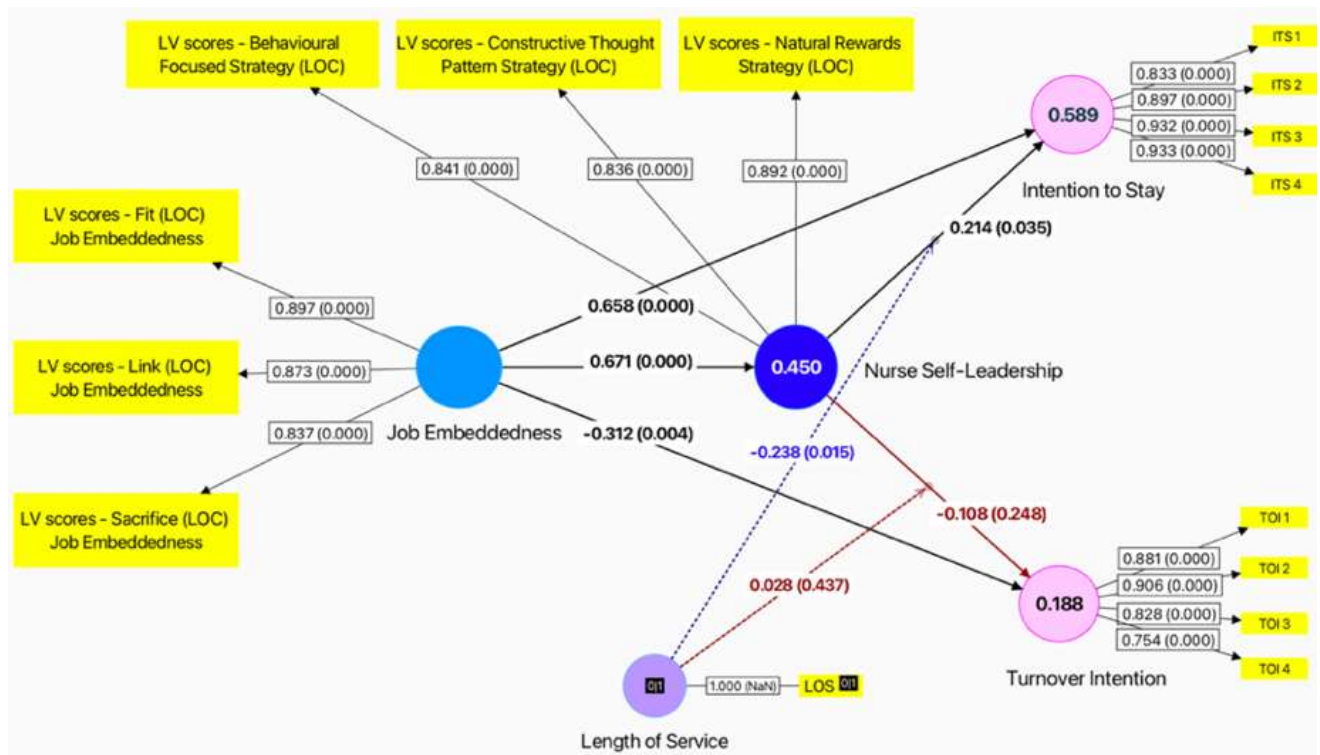


Figure 3. Second Stage Inner Model

Table 4. Cross Validated Predictive Ability Test (CVPAT)

Variable	PLS-SEM vs Indicator Average (IA)		PLS-SEM vs Linear Model (LM)	
	Average loss difference	p-value	Average loss difference	p-value
Nurse Self-Leadership	-0.322	0.000	0.010	0.632
Intention to Stay	-0.418	0.000	0.000	0.996
Turnover Intention	-0.116	0.187	-0.004	0.898
Overall	-0.282	0.000	0.001	0.943

Additionally, moderating effects—particularly those of length of service—are analyzed to determine their impact on the strength of these relationships. This analysis provides insight into how well the model explains the variance in key

outcomes, facilitating a comprehensive understanding of the interdependencies among the constructs. Based on the bootstrapping feature, the hypothesis testing findings are presented in Table 5.

Table 5. Significances & Coefficients

Hypothesis		St. Coeff	p-values	Confidence Interval		Result	f2
				5.00%	95.00%		
H1	Job Embeddedness -> Nurse Self-Leadership	0.671	0.000	0.584	0.754	Supported	0.818
H2	Job Embeddedness -> Intention to Stay	0.658	0.000	0.504	0.791	Supported	0.538
H3	Job Embeddedness -> Turnover Intention	-0.312	0.004	-0.497	-0.105	Supported	0.061
H4	Job Embeddedness -> Nurse Self-Leadership -> Intention to Stay	0.143	0.047	0.047	0.304	Supported	0.14*
H5	Nurse Self-Leadership -> Intention to Stay	0.214	0.035	0.039	0.425	Supported	0.032
H6	Nurse Self-Leadership -> Turnover Intention	-0.108	0.248	-0.390	0.132	Not Supported	0.004

	Hypothesis	St. Coeff	p-values	Confidence Interval		Result	f2
				5.00%	95.00%		
H7	Job Embeddedness -> Nurse Self-Leadership -> Turnover Intention	-0.073	-0.253	0.253	0.086	Not Supported	0.07*
H8	Length of Service x Nurse Self-Leadership -> Intention to Stay	-0.238	0.015	-0.422	-0.059	Supported	0.033
H9	Length of Service x Nurse Self-Leadership -> Turnover Intention	0.028	0.437	-0.254	0.338	Not Supported	0,000

Note: St. Coeff: Standard Coefficient; f2: Effect Size *: *upsilon statistic*

DISCUSSION

The findings reveal significant relationships among job embeddedness, nurse self-leadership, intention to stay, and turnover intention. These results align with previous studies indicating that a high level of job embeddedness increases commitment and engagement, which are crucial for retaining nursing staff (Zhou et al., 2021). Additionally, job embeddedness is negatively correlated with turnover intention, highlighting its role in reducing nurses' desire to leave their jobs (Ha & Ko, 2020).

The relationship between nurse self-leadership and intention to stay was also found to be significant, suggesting that nurses who practice self-leadership are more likely to remain committed to their organizations. This finding reinforces the view that self-regulation, motivation, and accountability play key roles in strengthening retention (Wijaya et al., 2025). Moreover, the mediating role of self-leadership in the relationship between job embeddedness and intention to stay supports the argument that self-leadership serves as a psychological mechanism through which embeddedness enhances commitment.

However, some hypotheses were not supported, specifically those involving turnover intention and moderation effects. The non-significant path between self-leadership and turnover intention indicates that, while self-leadership fosters internal motivation, it may not be sufficient to counteract external stressors such as high workload, limited career progression, or unsupportive management. Similarly, the absence of a significant mediating effect of self-leadership on turnover intention suggests that the decision to leave is influenced more by structural or environmental factors than by individual psychological traits. This finding is consistent with prior research emphasizing that turnover decisions are often driven by contextual variables, such as job satisfaction and organizational climate (Bry & Wigert, 2022).

The moderating effect of length of service indicates that the relationship between job embeddedness and self-leadership weakens as nurses gain more experience. This result contrasts with earlier studies that emphasized stronger embeddedness among long-tenured staff (Goldsby, Goldsby, & Neck, 2020). It suggests that experienced nurses, although embedded in their roles, may derive less motivational benefit from self-leadership practices due to familiarity with routines or career plateau effects.

To further investigate this relationship, a multi-group (simple slope) analysis was conducted. The results revealed that length of service significantly moderated the association between nurse self-leadership and intention to stay, with a negative direction. Practically, nurses with shorter tenure were more influenced by self-leadership behaviors than those with longer tenure. However, this moderating effect was

relatively weak. These differences may reflect contextual variations across hospital settings, where early-career nurses rely more heavily on self-leadership to adapt to challenging environments, whereas experienced nurses depend on established support systems and professional networks.

This study's results provide valuable suggestions for hospital managers and head nurses regarding the pivotal role of job embeddedness in enhancing nurses' self-leadership and intention to stay. By fostering a supportive environment that cultivates connection and belonging, healthcare leaders can improve nurse retention. Programs focused on recognition, career advancement, and work-life balance are instrumental in strengthening nurses' commitment and retention. Furthermore, self-leadership training encompassing resilience, motivation, and time management can amplify the positive effects of job embeddedness on retention, as supported by recent evidence that positive coping strategies and supportive workplace environments significantly enhance nurses' professional quality of life and well-being (Wijaya et al., 2025).

Given that length of service moderates this relationship, retention strategies should be tailored to different career stages, mentorship for newer nurses and leadership development for experienced nurses. Such targeted interventions have the potential to stabilize the nursing workforce, reduce turnover, and ultimately enhance the quality of patient care (Nakano et al., 2023).

This study has several limitations that may affect the generalizability of its findings. For instance, variation in nurse personalities could contribute to data heterogeneity. Additionally, the cultural context of Indonesia may influence these factors differently than in other countries, thereby limiting the international applicability of the findings. Future research that addresses these limitations could enhance the understanding of nurse retention strategies across diverse healthcare settings.

CONCLUSION AND RECOMMENDATION

The findings of this study reveal that job embeddedness plays a pivotal role in nurse retention by significantly enhancing both self-leadership and intention to stay. Nurses who experience strong connections within their workplace tend to demonstrate greater self-directed growth, fostering stronger commitment and reduced turnover intention. Self-leadership may serve as a mediating mechanism between job embeddedness and intention to stay, reinforcing retention among nurses already inclined to remain, while the moderating effect of length of service indicates that this relationship weakens as experience increases. These results emphasize the dual importance of structural and psychological attachment in stabilizing the nursing workforce and highlight job embeddedness as a crucial predictor of nurse retention within Indonesia's private hospital context.

Healthcare organizations should cultivate a work environment that strengthens job embeddedness through supportive leadership, recognition, and professional development. Nurse managers are encouraged to integrate self-leadership training such as reflective practice, goal setting, and self-monitoring into orientation, continuing education, and mentoring programs to enhance autonomy and adaptability. Retention strategies should also be tailored to nurses' length of service, with specific interventions to sustain engagement among mid and late career nurses. By fostering both organizational connection and personal growth, hospitals can effectively enhance workforce stability and maintain high-quality patient care.

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