Relation Between Toxic Leadership and Job Embeddedness

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Abstract

Background: Toxic leadership is defined as a persistent pattern of destructive behaviors by individuals in leadership positions that harm employees and organizational culture. In nursing, toxic leadership undermines morale, increases stress and contributes to burnout and turnover. It is characterized by manipulation, hostility and disregard for staff well-being, making it a serious threat to healthcare quality and safety. **Aim:** To investigate relation between nurse managers' toxic leadership behaviors and Job Embeddedness..

Subjects and methods: **Research design**: A descriptive correlational design was used. **Setting:** This study was conducted at Zagazig University Hospitals in Zagazig city, AL-Sharqia governorate **Participants:** Sample Simple random sample of 375 nursing staff. **Tools of data collection:** two tools were used for data collection; Toxic Leadership Scale, and Job Embeddedness scale.

Results: The study revealed that 56% of studied nurses perceived their mangers as toxic leaders in low level and 63.2% of nurses had high level of job embeddedness . A significant negative correlation was found between toxic leadership and job embeddedness (p = .000**).

Conclusion: more than half of the nurses perceived their managers as exhibiting toxic leadership behaviors at a low level. the majority of nurses demonstrated high level of job embeddedness. Toxic leadership was a significant predictor of Nursing of job embeddedness.

Recommendations: Promote positive leadership practices by replacing toxic leadership behaviors with supportive and empowering approaches that foster respect, collaboration and trust among nursing teams.

Keywords: *toxic Leadership, Nurses, Job Embeddedness*

Introduction

Toxic leadership is a growing concern in modern organizations, affecting not only individual employees but also the overall health and effectiveness of teams and institutions. Unlike effective leadership that inspires, motivates and nurtures growth, toxic leadership is marked by behaviors that are abusive, controlling and self-serving. This type of leadership undermines trust, creates fear and often leads to a hostile work environment where innovation, collaboration and morale suffer greatly **(Costas, 2021).**

Toxic leadership is a style of leadership characterized by abusive, manipulative, or self-centered behaviors that harm individuals, teams and the overall organizational culture. Toxic leaders often prioritize personal gain over team success, engage in bullying, micromanagement, or favoritism and create environments marked by fear, low morale and high stress. Their behavior not only undermines employee well-being and productivity but can also lead to long-term damage to an organization's performance, reputation and retention of talent **(Semedo et al., 2022).**

Understanding toxic leadership is essential for both employees and management, as its consequences are far-reaching and often difficult to reverse. By recognizing the signs early and implementing strategies to counteract or prevent such behavior, organizations can protect their work environments and ensure that leadership serves as a source of support and inspiration, not stress and dysfunction. Addressing toxic leadership is not only a matter of improving workplace culture—it is a critical step toward sustainable success and employee well-being **(Cushman, 2022).**

Narcissistic leaders prioritize personal recognition over team success, while self-promoting leaders exaggerate achievements and undermine others. Unpredictable leaders create instability through inconsistent decisions and erratic behavior. These traits contribute to emotional exhaustion, reduced engagement and increased turnover among nurses **(Zbuchea et al., 2022)**

Job embeddedness refers to the extent to which employees feel connected to their job and organization. It includes links (relationships), fit (alignment with values and skills) and sacrifice (cost of leaving). In nursing, high embeddedness is associated with lower turnover, stronger commitment and improved patient care **(Bass et al., 2022)**

Several factors influence job embeddedness, including supportive leadership, professional development opportunities and alignment with organizational values. Toxic leadership undermines these factors, while ethical climates and recognition programs enhance embeddedness. Understanding these dynamics helps healthcare institutions retain skilled nurses **(Lindström, 2022)** .

Job embeddedness can mediate the relationship between toxic leadership and nurse outcomes. Nurses who feel embedded are more likely to withstand negative leadership behaviors and remain committed to their roles. Enhancing embeddedness through ethical leadership and value-based practices is key to improving retention and well-being **(Zbuchea et al., 2022)**

Significance of the study

toxic leadership undermines job embeddedness by disrupting the relational and cultural ties that bind nurses to their organizations. Understanding this triadic relationship is essential for healthcare institutions aiming to foster ethical resilience, improve retention and enhance the overall quality of care. By examining how toxic leadership affects nurses' professional values and job embeddedness, this study contributes to the development of healthier work environments and more sustainable leadership models. **(Alavi & Karami, 2022)**

Therefore, it is vitally important to determine the effects of nurse managers' toxic leadership behaviors on job embeddedness.

This study aims to investigate effect of toxic leadership on job embeddedness. The results will provide insights to help better understand and improve the situation of nurses, who are at the heart of hospital services, and make the hospitals manage them efficiently.

Aim of the study

The current study aimed to investigate relation between nurse managers' toxic leadership behaviors and job embeddedness **This aim was fulfilled through the following objectives:**

- Identify nurse managers' toxic leadership behaviors that nurses are exposed.
- Measure job embeddedness level among nurses.
- Identify the relation between nurse managers' toxic leadership behaviors and the level of nurses' job embeddedness..

Research Questions:

- What are the nurse managers' toxic leadership behaviors that nurses are exposed?
- What is the job embeddedness level of nurses?
- What is the relation between nurse managers' toxic leadership behaviors and level of nurses' job embeddedness?

Subject and Methods

Research design:

A descriptive correlational design was used to achieve the aim of this study.

Study setting:

This study was conducted at Zagazig University Hospitals in Zagazig city, AL-Sharqia governorate

C-Study Subjects:

a. **Population**:
Nurses who are working at Zagazig University Hospitals, the number of total population is 2770 nurses.

inclusion criteria:

- Had at least one year of experience working in the current unit.
- Provide direct patient care.
- Agree to participate in the study.

b. **Sampling design:**
In this study, simple random sample was used. Simple random sample is a method used when the whole population is accessible and the investigator has a list of all subjects in this target population. The list of all subjects in this population is called the "sampling frame". From this list, researcher draw a random sample using lottery method or using a computer-generated random list (**Choices & Oaks, 2012**).

c. **Sample size:**
The total population size of 2770 nurses, so sample size was calculated by Steven K. Thompson Equation from the next formula (Thompson, 1987).

$$n = \frac{N \times p(1-p)}{[[N-1 \times (d^2 \div z^2)] + p(1-p)]}$$

Where: n: Sample size, N: Population size, z: Confidence level at 95% (1.96), d: Error proportion (0.05), p: Probability (50%).
The ideal sample size was estimated at a confidence level at 95% (1.96), error proportion (0.05) and the required sample size was 337 nurses. After adjust of a dropout rate of 10 % the sample size required was 375. A total of 375 questionnaire forms were returned, giving a response rate of 100%. So the definitive sample of the result was 375. Then the required number of staff nurses from each department was calculated with the following formula.

$$\frac{\text{Number of nurses in each department x required sample size}}{\textit{Total number of nurses in the hospital}}$$

Tools of data collection:
Two tools were used for collecting data in this study

Tool I: Toxic Leadership Scale: it consists of two parts:
Part I: Socio demographic and work-related characteristics of nurses and head nurses, to collect data about; age, gender, years of experience, marital status, level of education and department type.
Part II: The Toxic Leadership Scale was developed by Leodoro et al., (2020) to assess perception of toxic leadership among nurses. The scale consists of 30 items categorized into four factors that reflect the behaviors or actions of nurse managers that are intemperate, narcissistic, self-promoting, and humiliating behaviors. The responses of nurses to the items related to toxic leadership were measured on a five-point Likert scale ranging from strongly disagree (1 point) and strongly agree (5 points).

Scoring system:
The responses were measured by using 5point-scale ranging from strongly disagree (5) to strongly agree (1). For each item, the scores were summed up and giving a mean score for the item these scores were converted into percent score, total toxic Leadership scale of the studied nurses'

Tool III: Job Embeddedness scale:
Job embeddedness will be assessed by part of the on-job dimension of Job Embeddedness Scale, developed by Mitchell et al., (2001). A total of 25 items selected from the 40-item scale to evaluate the extent to which nurses' are connected, attached, or tied to their job. The scale comprised of three subscales, namely organizational links, organizational fit and organizational sacrifice. The responses of nurses to the scale will be measured on a five-point Likert scale ranging from strongly disagree (1 point) and strongly agree (5 points).
The total level of job embeddedness among nurses considered:

- Low < 50%.
- Moderate 50 < 75 %.
- High ≥ 75 % (Pimentel,2010)

Content validity and reliability:
The tools of data collection were translated into Arabic and then content and face validity were established by a jury of five experts specialized in nursing administration (two professors and three assistant professors) from Faculty of Nursing at Zagazig University. The validity sheet involved two parts face and content validity: the first part included the opinions of the experts for each item that were recorded on a two-point scale: relevant and not relevant and the second part covered general or overall opinions about the form, which express their comments on the tools for clarity, applicability, comprehensiveness, understanding any suggestions for any additional or omissions of items and ease for implementation. According to their opinions, all recommended modifications were performed by the researcher.

Pilot Study
A pilot study was conducted on 38 nurses (representing 10% of the total sample size) to assess the clarity, feasibility, and applicability of the tool as well as the time required for completion. The average time taken to complete the questionnaire was 30–45 minutes. Since no modifications were required, the pilot sample was included in the main study sample.

Field work:
The researcher introduced herself to nurses then explained the aim of the study to nurses and invited them to participate. Those who gave their verbal consent to participate were handed the tool form. The researcher was present during the data collection period (from June 2024 to

October 2024) to explain how to filling the questionnaires, clarify any ambiguity and answer any questions. The researcher personally collected the completed questionnaire from each participant and checked it to ensure its completion.

The study targeted staff nurses who fulfilled the inclusion criteria. Data were gathered using a structured self-administered questionnaire designed to assess self-leadership and holistic nursing competence to maximize response rates and ensure representativeness, questionnaires were distributed personally by the researcher across different shifts (morning, evening, and night). This ensured that all nurses, regardless of work schedule, had an equal opportunity to participate.

Before distribution, the researcher explained the aim of the study and reassured participants about the voluntary nature of their participation, anonymity, and confidentiality of responses. On average, completing the questionnaire required 30–45 minutes. The researcher remained present during data collection to provide clarification if needed and collected the questionnaires immediately after completion to minimize data loss.

Administrative and Ethical Considerations

This study received ethical approval from the Research Ethics Committee (REC), Faculty of Nursing, Zagazig University (approval code: M.D.ZU.NUR172, dated 12/3/2023).

- Oral consent was obtained from nursing staff that were included in the study sample after verbal explanation with each subject of the nature and the aim of the study. They were given an opportunity to refuse or to participate; the study couldn't pursue any negative consequences for the subjects. They were reassured that any collected information will be used exclusively for research purpose only.

Statistical Design

Collected data were organized, tabulated, and analyzed using the Statistical Package for the Social Sciences (SPSS), version 21. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize data. Inferential statistics, such as the Chi-square test (χ^2), linear correlation coefficient (r), and correlation matrix, were applied to examine associations between variables. Additionally, regression analysis was performed to explore the relationship between dependent and independent variables, thereby determining the extent to which changes in independent variables influenced dependent outcomes (**Polit & Beck, 2010).**

Table (1) indicates that more than half (53.3%) were younger than 30 years, with a mean age of 28.33 ± 4.97 years. Regarding gender distribution, females constituted 60.0% of the sample, while males accounted for 40.0%. Work experience varied among participants, with 44.6% having 5–10 years of experience, 29.3% with less than five years, and 26.1% with more than ten years. The marital status distribution shows that nearly half of the sample (48.0%) were married, while 37.3% were single. In terms of educational qualifications, the largest proportion of participants (52.8%) held a Technical institute of nursing, followed by 23.5% with a Nursing Diploma, and 18.7% with a Bachelor's degree in Nursing. Finally, department distribution indicates that a significant proportion of nurses (60.8%) worked in critical care units, while 39.2% were in non-critical care units.

Figure (1) The figure reveals that 56% of nurses perceived their mangers as toxic leaders in low level, while, 17% of them perceived their mangers as toxic leaders in high level. Moreover 27% in moderate level.

Table (2) reveals that most nurses had high levels of job embeddedness in sacrifice (64%), links (63.2%), and fit (59.5%) dimensions. Low levels remained below 12%, indicating relatively stable organizational commitment.

Figure (2) reveals that 63.2% of nurses had high level of job embeddedness, while, 9.8% of nurses had low job embeddedness levels.

Table (3) reveals that toxic leadership is negatively associated with job embeddedness (r = -0.601), These findings validate the negative impact of toxic leadership and the protective role of job embeddedness

Table (4) indicates that gender, marital status, and workplace experience significantly affected job embeddedness. Notably, critical unit nurses and those with 5–10 years' experience showed higher embeddedness levels at $P < 0.05$.

Discussion

Toxic leadership in healthcare has gained attention as a critical factor affecting nurse well-being and organizational outcomes. Recent studies have shown that such leadership behaviors are significantly linked to emotional exhaustion, increased turnover intentions, and reduced job satisfaction among nurses. In environments led by toxic leaders, nurses may experience a breakdown in trust and communication, impairing their capacity to work effectively and ethically **(Ofei et al., 2023; Özkan et al., 2022).**

Professional values form the ethical core of nursing. These values guide clinical judgment and shape nurses' identities and commitment to their roles. When undermined by toxic leadership, these values may weaken, resulting in moral distress and disengagement Therefore, the aim of this study was to investigate relation between nurse managers' toxic leadership behaviors and nurses' professional values.

Personal and Job characteristics of the studied nurses.

In the current study, the sample consisted of 375 staff nurses employed in Zagazig University Hospitals; more than half of the studied nurses were younger than 30 years, with a mean age of 28.33 ± 4.97 years. From the research investigator point of view, this could be due to the fact that this age range lies within the productive age in the

workforce of the. Females constituted three fifths of the nurses, which can be interpreted as nursing is a female dominated profession in Egypt. Work experience varied among participants, with more than two fifths of nurses having 5–10 years of experience. The marital status distribution shows that nearly half of the nurses were married. In terms of educational qualifications, more than half of nurses held a High Average Diploma. Finally, department distribution indicated that about three fifths of nurses worked in critical care units.

Nurses' perception of toxic leadership:

Regarding the studied nurses' total perception level related to toxic leadership, the current study revealed that more than half of nurses experience toxic leadership in low level. While , about one fifth of them experience high perception level about toxic leadership. This means that a significant portion of the staff nurses assessed in the study perceived a prevalent presence of toxic leadership behaviors within their workplace environment.

This may be due to lack of effective communication channels within the health care facility, leading to misunderstandings and frustrations among staff members. Additionally, insufficient training or support for managerial roles might contribute to behaviors perceived as toxic by front-line nurses. Moreover, the prevalence of high-stress environments in health care settings could exacerbate negative leadership tendencies, as leaders may inadvertently resort to authoritarian or micromanagement styles under pressure. Furthermore, organizational structures that prioritize productivity over employee well-being may inadvertently foster toxic behaviors among leadership ranks **(Guo et al., 2023).**

This result was supported by **Ghazy et al. (2025)** whose study in Egypt, aimed to investigate the relationship between staff nurses' perception of toxic leadership behaviors and their job satisfaction, and found that more than half of the studied staff nurses perceived low levels of total toxic leadership behavior. In the same scene, a study in Oman conducted by **Labrague (2021)** about influence of nurse managers' toxic leadership behaviors on nurse-reported adverse events and quality of care, whose study revealed that nursing staff rated their leader's as toxic leadership behaviors to a small extent.

Aligned with this result, **Hossny et al. (2023)** who conducted a study in Egypt to assess nurses' perception of the effects of organizational climate and toxic leadership behaviors on their intention to stay and the differences in these domains between the two hospitals studied, and reported that a significant proportion of staff nurses perceived low levels of toxic leadership behaviors. The study emphasized that a positive organizational climate and supportive systems played a significant role in reducing the perception of toxic leadership.

Likewise, a study conducted by **Mahgob et al. (2024)** in Egypt, to identifying staff nurses' perception regarding toxic leadership behavior of head nurses and its relation to their work engagement, and stated that approximately two-thirds of staff nurses had a low perception level toward total toxic leadership. The study highlighted that positive leadership practices and supportive work environments may contribute to lower perceptions of toxic leadership among nurses.

Conversely, **Türkmen and Özduyan (2024)** who conducted a study in Turkey to investigate the relationship between nurses' perception of toxic leadership and their organizational trust levels and turnover intentions, determined that almost half of the nurses were exposed to toxic behaviors from their managers within the last year. The study revealed that nurses' perceptions of toxic leadership had a negative effect on organizational trust levels and a positive significant effect on turnover intentions.

Nurses' job embeddedness:

Considering the studied nurses' total level of job embeddedness, the current study demonstrated that more than three fifths of nurses had high perception of job embeddedness. While, minority of them had low perception about job embeddedness. This finding may be referred to trust, mutual respect, peer support, quality of work life, and honest communication between nurses, leading to a positive work environment that increased job embeddedness. As well, this may be stem from the majority of nurses had high awareness about their responsibility, but they not identify how to apply effectively.

This result was compatible with a study in Egypt performed by **Fathy et al. (2024)** to assess perceived supervisor support and its influence on job embeddedness among staff nurses, and noticed that more than half of the studied staff nurses had high level of job embeddedness. Consistently, a study in Iran conducted by **Goliroshan et al., (2021)** about the protective role of professional self-concept and job embeddedness on nurses' burnout. They reported high levels of job embeddedness among nurses.

In the same context, a study in Egypt performed by **El Sayed and Khaled (2024)** to assess authentic leadership and its influence on job embeddedness among staff nurses, and found that half of the studied nurses had a high total level of job embeddedness. Also, this result was consistent with a study in Egypt carried out by **Nomany et al.'s (2022)** study, which aimed to evaluate perceived nursing supervisor support and its influence on job embeddedness among staff nurses. The study revealed that most staff nurses demonstrated high job embeddedness

Regarding the studied nurses' level of job embeddedness dimensions, the present study displayed that more than three fifths of nurses reported a high level of job embeddedness in the sacrifice organization dimension, followed by links organization dimension, respectively. Also, more than half of nurses reported a high level of fit organization dimension. While, less than one fifth and minority of them had low fit

organization and sacrifice organization dimensions. This may be due to the strong emotional and professional bonds that nurses develop within their organizations.

This result reflected a combination of strong interpersonal relationships, alignment with organizational culture, and perceived personal and professional losses associated with leaving. These factors collectively contribute to greater job retention and organizational commitment, emphasizing the importance of fostering a supportive and value-driven work environment in healthcare settings. Parallel with this result, a study in China conducted by **Wang et al. (2024)** on nurses' job embeddedness and turnover intention, reported that more than half of nurses perceived high sacrifice organization dimension and found that the sacrifice dimension had the strongest negative correlation with turnover intention among the three job embeddedness dimensions.

Correlation between toxic leadership, job embeddedness

the present study highlighted that there was highly significant negative correlation was found between toxic leadership and job embeddedness. This can be interpreted as nurses greater exposure to toxic leadership is linked to weaker job embeddedness, nurses feel less connected to their organization and are more likely to consider leaving. In practical terms, reducing toxic leadership behaviors may strengthen nurses' attachment to their jobs and improve retention **(Abo El Magd & Ali, 2025)**. In the same scene, a study conducted by **Fan et al. (2024)** who studied the role of the nursing work environment, head nurse leadership and presenteeism in job embeddedness among new nurses, in China highlighted that when nurses uphold values like integrity and patient-centered care, they develop deeper social ties with colleagues and the organization, which translated to higher job embeddedness scores.

Conclusion:

The study findings indicated that more than half of the nurses perceived their managers as exhibiting toxic leadership behaviors at a low level, whereas less than one-fifth viewed their managers as highly toxic leaders. Similarly, most nurses exhibited a high level of job embeddedness, whereas a few of them had low levels.

Recommendations: -

Based on the study finding, the current study recommended the following:

For Nurse Managers

- Promote positive leadership practices by replacing toxic leadership behaviors with supportive and empowering approaches that foster respect, collaboration and trust among nursing teams

For Nurses

- • Promote peer support and mentorship by encouraging nurses to engage in mentorship and peer-collaboration initiatives that strengthen solidarity, shared learning and moral resilience against workplace toxicity.
- **For Nursing Administrators and Policy Makers**
- Implement anti-toxic leadership policies by integrating clear policies and reporting mechanisms to identify, address and prevent toxic managerial behaviors..
- Support organizational well-being by developing interventions such as recognition programs, wellness initiatives and transparent promotion systems to enhance job embeddedness and retention.

Future Research

- Examine longitudinal effects by conducting studies that explore how toxic leadership influences nurses' retention, performance and mental health over time.

• Conduct intervention studies assessing the effectiveness of specific leadership training or mitigating the negative impact of toxic leadership and improving job embeddedness.

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Author's contribution

A..E.E and S G. A; conceived of .the presented idea. S.G.A; collected the data. F.H and A..E.A verified the analytical methods, encouraged to investigate the relationship between nursing staff awareness about hospital accreditation, organizational development and supervised the findings of this work.

Declaration of Conflicting Interests

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Table (1): Personal and Job characteristics of the studied nurses (n=375).

Characteristics of Personal data	No.	%
Age(years)		
< 30	200	53.3
30-40	110	29.3
More than 40	65	17.4
Mean± SD 8.33± 4.97		
Gender		
Male	150	40
Female	225	60
Years of experiences		
Less than 5 years	110	29.3
5-10 years	167	44.6
More than 10 years	98	26.1
Marital Status		
Single	140	37.3
Married	180	48
Divorced	25	6.7
Widow	30	8
Level of education		
Nursing Diploma	88	23.5
Technical institute of nursing	198	52.8
Bachelor Degree in Nursing	70	18.7
Other(Master& Doctorate)	19	5
Department type		
Critical unit	228	60.8
Non critical unit	147	39.2

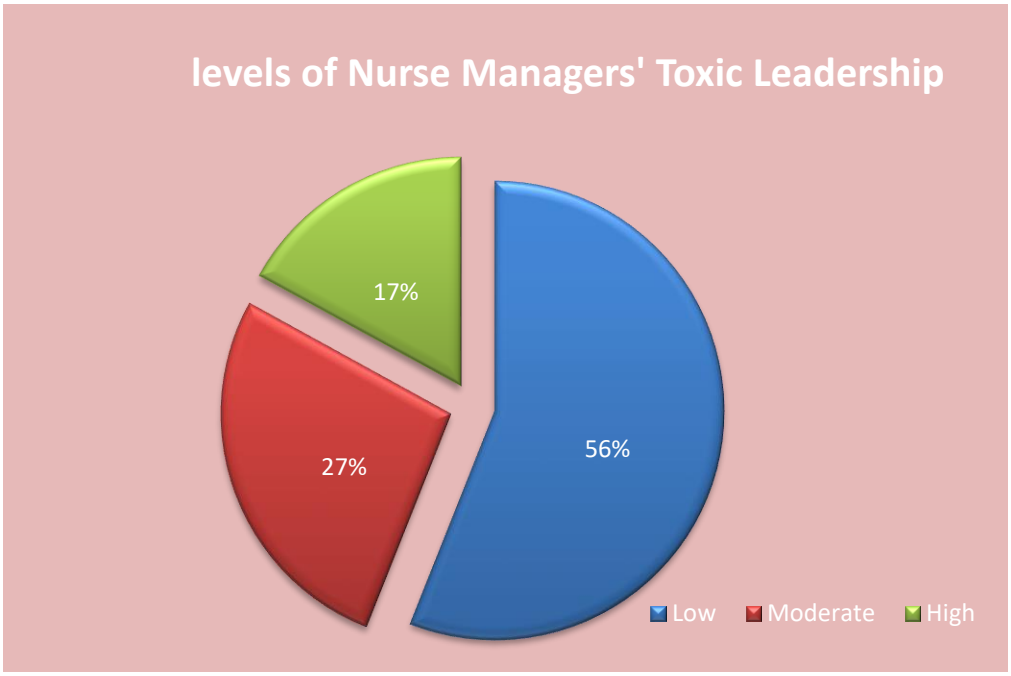

Figure (1): Total level of toxic leadership as reported by studied nurse (n = 375).

Table (2): Frequency distribution of nurses' level of job embeddedness subscales (n=375)

Job embeddedness subscales	High <60%		Moderate 40%-60%		Low >40%	
	No.	%	No.	%	No.	%
Fit organization	223	59.5	108	28.8	44	11.7
Links organization	237	63.2	103	27.5	35	9.3
Sacrifice organization	240	64	104	27.7	31	8.3

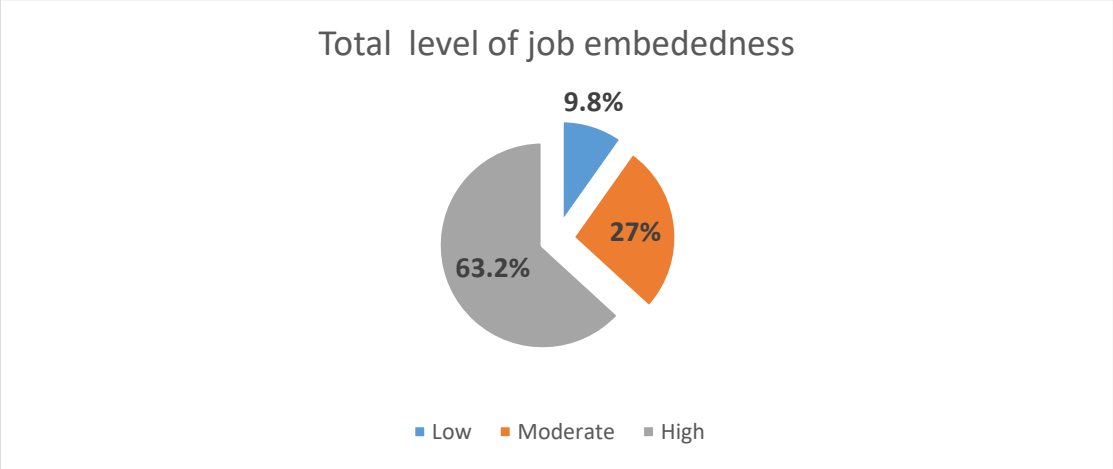

Figure (2): levels of nurses' job embeddedness (n=375).

Table 3): Pearson correlation between the studied variables

Variables	Person correlation	Job embeddedness
Toxic leadership	P	-.601**
	R	.000

Statistically significant at p<0.01. r Pearson correlation

Table (4): Relationship between nurses' personal data and total perception level regarding job embeddedness (n = 375)

Personal data	Total nurse Level						Chi square test	
	High		Moderate		Low			
	NO,	%	NO,	%	NO,	%	χ2	p
Age								
< 30 years	100	26.7	50	13.3	50	13.3	0.790	.160
30-40 years	70	18.7	20	5.3	20	5.3		
More than 40 years	5	1.3	55	14.7	5	1.3		
Gender								
Male	90	24	30	8	30	8	6.225	.014*
Female	100	26.7	85	22.7	40	10.7		
Years of experiences								
Less Than 5 Years	30	8	50	13.3	30	8	.129	.38
5 Years To 10 Years	100	26.7	67	17.9	0	0		
More Than 10 Years	40	10.7	20	5.3	38	10.1		
Marital status								
Single	50	13.3	70	18.7	20	5.3	5.103	.041*
Married	120	32	30	8	30	8		
Divorced	0	0	10	2.7	15	4		
Widow	10	2.7	2	0.6	8	2.1		
Level of education								
Nursing diploma	70	18.7	8	2.	10	2.7	.029	.70
High average diploma	80	21.3	10	2.7	10	2.7		
Bachelor degree in nursing	100	26.7	68	18.1	0	0		
Other	10	2.7	5	1.3	4	1		
Years of Experience in current workplace								
Critical unit	110	29.3	50	13.3	68	18.1	2.530	.023
Noncritical unit	65	17.3	37	9.9	45	12		

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