

Influence of the Head Nurses Managerial Intelligence on Intensive Care Nurses Thriving and Job Embeddedness: Comparative Study

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Abstract

Background: Managerial intelligence has gained momentum where developing head nurses' competency as professionals, preventing nurses from departing their current positions and can impact on nurses thriving. **Aim:** To compare between Tanta Main University and EL-Salam Hospitals regarding the influence of the head nurses' managerial intelligence on intensive care nurses thriving and job embeddedness. **Method:** Descriptive correlational comparative study design was applied. **Setting:** The study was done in all ICUs in Tanta Main University and EL-Salam Hospitals. **Subjects:** A convenience sample of intensive care nurses working in both studied hospitals. **Study tools:** Three tools were utilized to collect study data; (1): Head Nurse' Managerial Intelligence, (2): Nurses' Thriving Questionnaire, and (3) Job Embeddedness Questionnaire. **Results:** At El Salam Hospital around two-thirds of s nurses had high perception level regarding their head nurses' managerial intelligence, and more over a half of nurses experienced high perception level in Tanta Main University Hospital. At El Salam Hospital the majority of nurses also experienced had high level of work place thriving while, at Tanta Main University Hospital more than half of nurses had high level of thriving in work place. The highest percent of nurses had a high level of job embeddedness at El Salam and Tanta Main University Hospitals, respectively. **Conclusion:** it was concluded from the study statistically significant positive correlations between head nurse managerial intelligence, nurses' job embeddedness and nurses' thriving at work place at El-Salam and Tanta Main University hospitals. **Recommendations:** Periodic attendance of training programs to refresh head nurses' knowledge and skills related to managerial intelligence.

Keywords: *Head Nurses, Intensive Care Nurses, Job Embeddedness, Managerial Intelligence & Thriving.*

Introduction

Head nurses responsibilities include planning, management resources, establishing nursing care, as well as, supervising, assessing and evaluating nurses' performance and contributing to an optimal outcome for patients and the hospital. Intensive care nurses (ICU) nurses are skilled, qualified, competent and trained staff who gives care to patients with serious illness, diseases or conditions (Gunawan & Aunguroch 2017). Also, ICU nurses are responsible for giving patient specialized experience, information, and skills that patients required to live. The head nurses are required to be equipped with managerial intelligence to face complex, unstable, and unpredictable change in healthcare environment. Particularly at intensive care units (ICUs), the success of head nurses largely depends on their managerial intelligence (Mosadeghrad & Abbasi 2020).

Head nurse managerial intelligence is the capability, capacity, knowledge, practice, and experience to examine and analyze, define and solve hospital problems. In addition, develop good communication, generate effective nets and relations, and increase the influence and control for successful and effective adjusting and coping to manage environmental

change or produce appropriate environment to accomplish the goal of hospital. Managerial intelligence of head nurse has three dimensions; cognitive, emotional, and social intelligence (Dargahi & Vaysi 2021). Cognitive Intelligence is the capacity of head nurse to think critically and theoretically, reason, plan, solve problems in novel situations, understand complex ideas and thoughts, learn rapidly, learn from involvement and experience and autonomously get and acquire knowledge (Imran, et al., 2016). Emotional intelligence is the capacity of a head nurse to recognize his or her own emotions and the emotions of others, as well as use the information to regulate emotions (Albuqami et al., 2020) and (Banjar & El Seesy 2019). Head nurse emotional intelligence includes their ability to easily not be affected by external events, suppress negative emotions when worried and angry, deal calmly, sensitively, and proactively with the emotional displays of others and reach a successful agreement (Abozied 2021) and (Chen & Phillips 2019). Social intelligence refers to the head nurses' abilities to interact, maintain and build relationships with other nurses; as well as influence others and help nurses when needed (El-shaer & Gaber 2018). So

managerial intelligence is expected to help head nurses to maintain a state of equilibrium to be more comfortable overcoming the challenges at ICU units and lead to nurses becoming more engaged, job embedded and thriving at work place (Moghddam, et al., 2019).

Nurses' thriving refers to the nurses' ability to develop, prosper, flourish and grow enthusiastically and expand actively on move forwards instead of just remaining static and keeping the current quo (Ali & Obied 2022). Intensive care nurses with perceived thriving at work behaviors routinely seek out information and education to achieve and accomplish their higher and greater potential (Iqbal, et al., 2021). Intensive care nurses become prepared to learn and acquire innovative and new things by seeking new approach or techniques to grow their capabilities and potential. Nurses thriving at work have two aspects includes: vitality and learning (Zhao, et al., 2017). Vitality is the mood and emotional sense that motivate and encourage nurses to become active and enthusiastic in their workplace, while learning is an accumulation of information and practical skills to build self-confidence and increase competences. When nurses are thriving at work place, they have a sense of growth and development that is changed through learning (Afsar & Umrani 2020). Thriving in work place is a path to organizational sustainability, success and efficiency through healthy, productive and creative nurses. Nurses who thrive have desirable and appropriate workplace performance and activities like creativity, innovation, and embeddedness (Abou Ramadan, 2020, & Walt, 2018).

Job embeddedness is the degree to which nurses are involved, joined, attached and committed to their work, which keeps them from leaving their present organization (Elsabahy et al., 2019). It is a combination and mix of emotional, personal, and qualified features that retain nurses from leaving their job (Alsayed & Abdel ghani 2022). Job embeddedness contains three facets as: fit, link and sacrifice. Fit refer to the extent of a nurse's loyalty to their career and tight association with the organization. Also, It emphasizes how well nurses integrate into the organization's norms, culture, ethos, values, principles, career objectives, and job wants and requirements (Ratnawati, et al., 2020). Link means the nurses' ability to build a good network of hospital relationships (Ferreira, Martinez, et al., 2017). Sacrifice reveals the associated and allied perceived cost of resources or psychological advantages that may be sacrificed by departing a job. These sacrifices can be recognized as losses in income and salary, pension finances, compensated time, absence for illness, and other welfare and advantages (Orie & Semeijn 2021).

Significance of the study

Intensive care nurses composed of largest group of staff in health care organization, who dealing with seriously ill patients, heavy workload, little pay, and low recognition. As well as, patients believe good-quality and better nursing care; so, head nurse should have adequate managerial intelligence to cope with these changes. Managerial intelligence plays a dynamic role at ICUs, it enhances head nurses' professional competency, organizational strategic objectives and nurses become connected, attached, retained and embedded in their jobs. Head nurse managerial intelligence preserve nurses from leaving their current job as well as elevated level of effectiveness in the health care manufacturing and effect on nursing surviving, prosperity and thriving at workplace. So, we need to assess the influence of head nurses' managerial intelligence on intensive care nurses' thriving and job embeddedness at both Tanta Main University Hospitals and EL-Salam International Private Hospital.

The study aim

The study aimed to compare between Tanta Main University and EL-Salam private Hospitals regarding the influence of the head nurses' managerial intelligence on intensive care nurses thriving and job embeddedness.

Research questions

- What are the levels of head nurses' managerial intelligence in Tanta Main University and EL-Salam International Private Hospitals as perceived by nurses?
- What are the levels of nurses' thriving and job embeddedness in Tanta Main University and EL-Salam International Private Hospitals?
- What is the relation between head nurses' managerial intelligence and nurses' thriving and job embeddedness?
- Is there a difference between Tanta Main University Hospital and EL-Salam International Private Hospital regarding head nurses' managerial intelligence, nurses' thriving and job embeddedness?

Subject & Methods

A descriptive, comparative and correlational design was utilized to accomplish the aim of the current study

Research Settings:

This study was carried out in two different settings:

- All Intensive Care Units at Tanta Main University Hospitals affiliated to Ministry of High Education and Scientific Research; (neuropsychiatric, oncology and cardiac ICU)
- All Intensive Care Units at EL-Salam International Private Hospital affiliated to Ministry of Health and

Population; (cardiac thoracic, kidney transplantation, zone (A & B), surgical, stroke, and cardiac ICU)

Research Subjects:

The study subject composed of a convenience sample of intensive care nurses working in both studied hospitals. The study subject includes; 117 nurses at Tanta Main University Hospitals: Neuropsychiatric (50), Oncology (18) and Cardiac ICU (49). As well as 170 nurses at EL-Salam Hospital: Cardiac thoracic (15), kidney transplantation (16), zone A (36), zone B (37), surgical (17), stroke (16), and cardiac ICU (33).

Data collection tools:

The current study utilized three tools as follow;

Tool (1): Nurses' Perception Regarding the Head Nurse' Managerial Intelligence

This tool included two parts.

Part one; encompassed personal characteristics of nurses such as their sex, age, marital status, educational level, years of experience.

Part two; Head Nurse' Managerial Intelligence structured Questionnaire was developed by the researchers guided by (Mosadeghrad & Abbasi) (2020) and related literatures (Gunawan & Aunguroch 2017 & Dargahi & Vaysi 2021). It was used to assess head nurses' managerial intelligence from nurses' perspectives. It included three dimensions; cognitive intelligence (6 items), emotional intelligence (6 items), and social intelligence (6 items).

Scoring system:

Response of nurses measured as follow = 1 strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Levels of head nurse 'managerial intelligence represented based on statistical criteria that classify levels of >75% as high, 60%-75% as moderate, and 60% as low.

Tool (2): Staff Nurses' Thriving Questionnaire

This tool created by Porath et al (2012) and modified by the researchers to evaluate nurses' thriving at their work place. It was classified into two parts with 10 items: named vitality (4 items), and learning (6 items).

Scoring system:

Nurses response were measured using a five-point Likert Scale, that ranged from 5 = strongly agree to 1 = strongly disagree. Levels of ICU nurses' thriving statistically based on the cut off points into high level >75%, Moderate level 60%-75% and low level <60% level.

Tool (3): Job Embeddedness Questionnaire

This tool was established and developed by Mitchell et al (2001), which was modified by the researchers based on related literatures (Ghaffar & Khan 2018) and (Orie & Semeijn 2021). The adapted version integrated 17 items to assess the job embeddedness as

perceived by nurses. It categorized into three dimensions, organization fit dimension (7 items), and organizational sacrifice dimension (6 items) and organizational links dimension (4 items).

Scoring system:

The response of nurses ranged along a five-point Likert Scale, which ranged from 5 = strongly agree to 1 = strongly disagree. Levels of ICNs job embeddedness statistically based on the cut-off points into high level >75%, moderate level 60%-75% and low level <60%.

Method

Validity and reliability:

The tools of this study were submitted to a panel of seven specialists in the field of nursing administration to judge and evaluate its content, clarity, and face validity. They were asked to perform the modifications essential for items that are vague or distinct. The value of Cronbach's coefficient alpha was used to judge and evaluate the study tools internal consistency, that revealed 0.76 for head nurse' managerial intelligence, 0.89 for nurses thriving, and 0.91 for nurses' job embeddedness. Revealing worthy internal consistency of reliability.

Pilot study:

The pilot study was applied on 29 nurses, representing 10% of study sample and they excluded from the main study subjects because it collected from another place but with the same characteristics of study sample. Pilot study aim to check items sequence and applicability, relevance of questions, consistency, clarity, understandable language, and fitness of the tools, beside, control any obstacles faced during data collection. Essential modifications were done. The expected time required for filling the questionnaire sheet approximately taken 20-30 minutes for each subject.

Data Collection technique:

This phase lasted for about three months, commencing in January 2023 and ending in March 2023. The data was gathered via a self-administered questionnaire. It was back-translated to guarantee correctness and translated into Arabic so that it was understandable to nurses of different educational levels. In small groups, the questionnaire was given to the nurses in their respective units.

Ethical Considerations:

Tanta Faculty of Nursing Research Ethical Committee code number (194-1-2023) was received. Before to data collection, Tanta Main University and EL-Salam International Private Hospitals' Chief Executive Officers received authorization to conduct the study, which was sent to department supervisors before to the research's execution. The purpose of the study was explained to the participants. And consented to participate. They were assured that all

data acquired would be utilized only for research, that the study was risk-free, and that their permission to share was required in order to be a part of the research. Every participant was promised that they might leave at any time.

Statistical analysis:

The data was entered into the computer and analyzed with the IBM SPSS software program version 20.0. IBM Corporation, Armonk, New York Numbers and percentages were used to describe qualitative data. The Kolmogorov-Smirnov test was employed to confirm the distribution's normality. Range

(minimum and maximum), mean, standard deviation, and median were used to characterize quantitative data. The significance of the acquired results was determined at a 5% level. The tests that were utilized were as follows: To compare various groups, use the Chi-square test for categorical data. To compare two examined groups, use the Student t-test for normally distributed quantitative variables. Pearson coefficient for determining the relationship between two normally distributed quantitative variables. To compare more than two groups, use the F-test (ANOVA) for normally distributed quantitative variables.

Results

Table (1): Nurses' personal data at Tanta Main University and El-Salam International Private Hospitals (n = 287)

Personal data	Tanta (n = 117)		El salam (n = 170)	
	No.	%	No.	%
Sex				
Male	21	17.9	90	52.9
Female	96	82.1	80	47.1
Age				
<30	11	9.4	145	85.3
30 – 40	70	59.8	25	14.7
≥40	36	30.8	0	0.0
Min. – Max.	26.0 – 46.0		22.0 – 34.0	
Mean ± SD.	36.16 ± 4.90		26.59 ± 2.69	
Median	35.0		26.0	
Marital Status				
Married	99	84.6	81	47.6
Unmarried	18	15.4	89	52.4
Level of education				
Technical Institute of Nursing	3	2.6	32	18.8
Bachelor degree	75	64.1	113	66.5
Master degree	36	30.8	17	10.0
Doctoral degree	3	2.6	8	4.7
Year of experience				
<5	0	00.0	120	70.6
5-<10	14	12.0	33	19.4
10-<15	55	47.0	17	10.0
≥15	48	41.0	0	0.0
Min. – Max.	5.0 – 20.0		1.00 – 13.0	
Mean ± SD.	13.21 ± 3.49		4.48 ± 3.23	
Median	13.0		4.0	

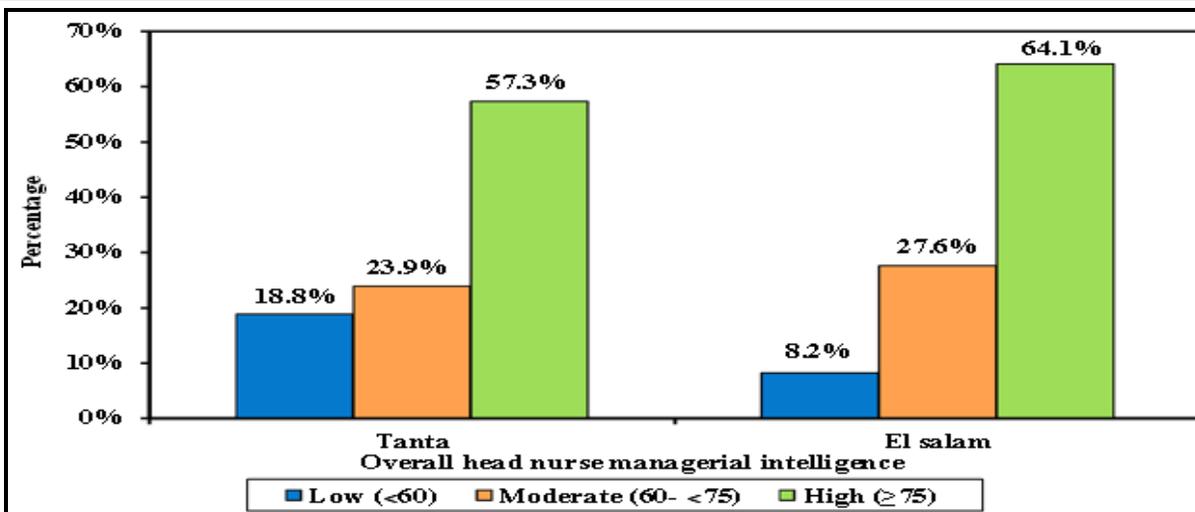


Figure (1): Total level of head nurses' managerial intelligence as perceived by nurses at Tanta Main University and EL-Salam International Private Hospitals

Table (2): Total levels of head nurses' managerial intelligence dimensions as perceived by nurses in Tanta Main University and EL-Salam International Private Hospitals (n = 287)

Head Nurse Managerial Intelligence dimensions	Tanta (n= 117)		El salam (n = 170)		χ^2	p
	No.	%	No.	%		
Cognitive intelligence						
Low (<60)	23	19.7	8	4.7	16.164*	<0.001*
Moderate (60- <75)	20	17.1	32	18.8		
High (≥75)	74	63.2	130	76.5		
Emotional intelligence						
Low (<60)	28	23.9	21	12.4	6.613*	0.037*
Moderate (60- <75)	18	15.4	32	18.8		
High (≥75)	71	60.7	117	68.8		
Social intelligence						
Low (<60)	21	17.9	39	22.9	20.392*	<0.001*
Moderate (60- <75)	26	22.2	8	4.7		
High (≥75)	70	59.8	123	72.4		

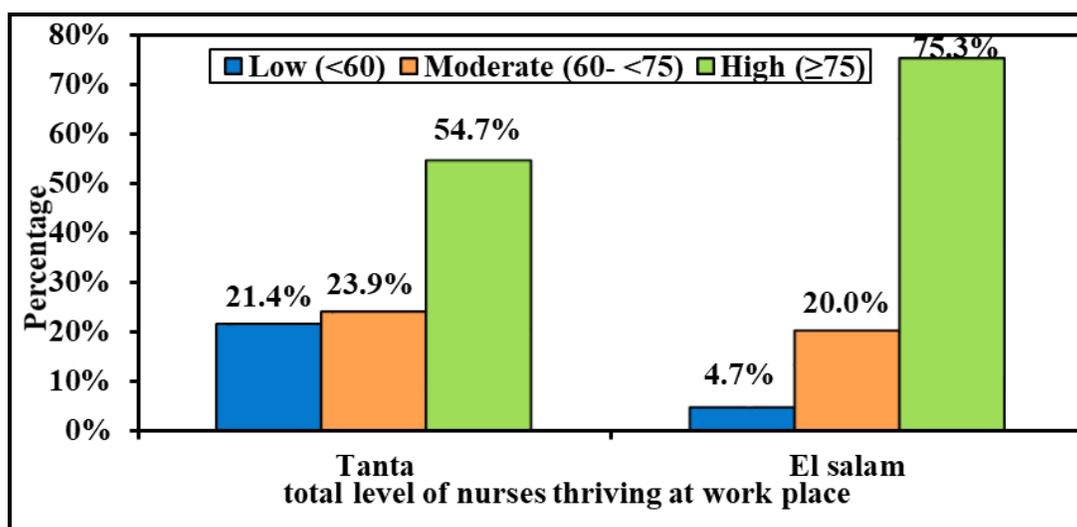


Figure (2): Total level of nurse thriving at work place at Tanta Main University and EL-Salam International Private Hospitals

Table (3): Total levels of nurses thriving at work place dimensions at Tanta Main University and EL-Salam International Private Hospitals (n = 287)

nurses thriving at work place dimensions	Tanta (n= 117)		El salam (n = 170)		χ^2	P
	No.	%	No.	%		
Vitality subscale						
Low (<60)	35	29.9	26	15.3	8.853*	0.012*
Moderate (60- <75)	18	15.4	32	18.8		
High (≥ 75)	64	54.7	112	65.9		
Learning subscale						
Low (<60)	18	15.4	8	4.7	36.475*	<0.001*
Moderate (60- <75)	30	25.6	10	5.9		
High (≥ 75)	69	59.0	152	89.4		

Statistically significant at $p \leq 0.05$

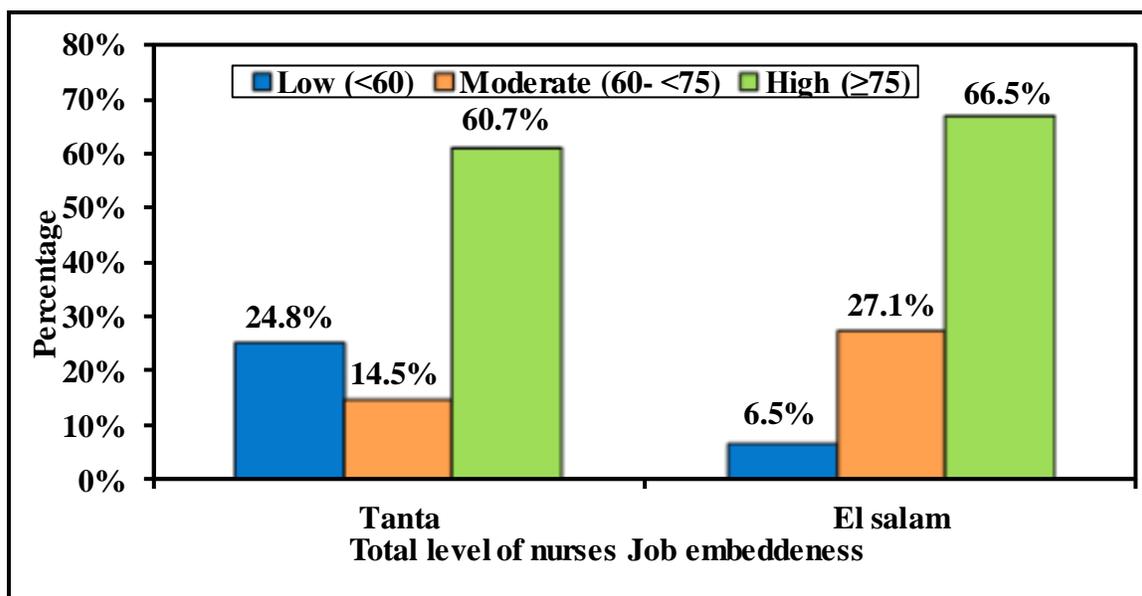


Figure (3): Total level of nurse' job embeddedness at Tanta Main University and EL-Salam International Private Hospitals

Table (4): Total levels of nurse' job embeddedness dimensions in Tanta Main University and EL-Salam International Private Hospitals (n = 287)

Job embeddedness dimensions	Tanta (n= 117)		El salam (n = 170)		χ^2	P
	No.	%	No.	%		
Organization fit						
Low (<60)	28	23.9	11	6.5	20.894*	<0.001*
Moderate (60- <75)	26	22.2	31	18.2		
High (≥ 75)	63	53.8	128	75.3		
Organizational Sacrifice						
Low (<60)	39	33.3	17	10.0	24.207*	<0.001*
Moderate (60- <75)	11	9.4	25	14.7		
High (≥ 75)	67	57.3	128	75.3		
Organizational Links						
Low (<60)	22	18.8	8	4.7	21.726*	<0.001*
Moderate (60- <75)	25	21.4	21	12.4		
High (≥ 75)	70	59.8	141	82.9		

Statistically significant at $p \leq 0.05$

Table (5): Correlation between head nurses' managerial intelligence, nurses thriving and Job embeddedness at Tanta Main University and El salam hospital (n = 287)

	Tanta (n= 117)		El salam (n = 170)	
	r	p	r	p
Head nurses managerial intelligence vs. Job embeddedness of staff nurses	0.600*	<0.001*	0.619*	<0.001*
Head nurses managerial intelligence vs. Staff nurses thriving at work place	0.289*	0.002*	0.360*	<0.001*
Job embeddedness of staff nurses vs. Staff nurses thriving at work place	0.458*	<0.001*	0.400*	<0.001*

r: Pearson coefficient

*: Statistically significant at $p \leq 0.05$

Table (1): Displays the frequency and the nurses' personal characteristics distribution at Tanta Main University and El-Salam International Private Hospitals. Regarding Tanta Main University Hospital, majority (82.1%) of nurses were females, 59.8% of them aged 30 to 40 years with a mean score (36.16 ± 4.90) and 84.6% were married. Around two-thirds (64.1%) of nurses had a bachelor's degree of nursing, 47.0% of them had 10-15 years of experience with a mean score 13.21 ± 3.49 . Concerning El Salam Hospital, more than half (52.9%) of nurses were male, 85.3% of them were aged less than 30 years with a mean score of 26.59 ± 2.69 , 52.4% of them were unmarried, 66.5% of them had a bachelor's degree in nursing, and 70.6% of them had less than five years of experience with a mean score of 4.48 ± 3.23 .

Figure (1): Shows total levels of head nurses' managerial intelligence as perceived by nurses at Tanta Main University and El Salam Hospitals. Regarding Tanta Main University Hospital more than half (57.3%) of nurses had high level of perception regarding head nurses' managerial intelligence. Concerning El Salam Hospital around two thirds (64.1%) of nurses had high level of perception regarding head nurses' managerial intelligence.

Table (2): Demonstrates total levels of head nurses' managerial intelligence dimensions as perceived by nurses in Tanta Main University and El Salam Hospitals. It was noticed that head nurses' managerial intelligence dimensions (cognitive, emotional, and social) were to be statistically significant at $p \leq 0.05$ between the two hospitals. Regarding Tanta Main University Hospital more than half (63.2%, 60.7, and 59.8%) of nurses had high level of perception regarding cognitive intelligence, emotional intelligence, and social intelligence dimensions respectively. Concerning El Salam Hospital the highest percent (76.5%, 72.4%, and 68.8%) of nurses had high level of perception regarding cognitive intelligence, social intelligence, and emotional intelligence dimensions respectively.

Figure (2): Shows total level of nurse' thriving at work place at Tanta Main University and El Salam Hospitals. Regarding Tanta Main University Hospital more than half of nurses had high level of thriving at work place while low percent had low level of thriving at work place. Concerning El Salam Hospital three quarters of nurses had high level of thriving at work place, and minority of them had low level of thriving at work place.

Table (3): Demonstrates total levels of nurses thriving at work place dimensions at Tanta Main University and El Salam Hospitals. It was noticed that nursing thriving vitality and learning dimensions were be Statistically significant at $p \leq 0.05$ in two hospitals. Regarding Tanta main University Hospital more than half (59.0%, 54.7%) of nurses had high level of perception regarding learning, vitality dimensions respectively. Concerning El Salam Hospital the majority (89.4%) of nurses had high level of perception regarding learning dimension and two thirds (65.9%) of nurses had high level of perception regarding vitality dimension.

Figure (3): Shows total level of nurse' job embeddedness perception at Tanta Main University and El Salam Hospitals. Regarding Tanta University Hospital more than half of nurses had high level of job embeddedness, while low percent had low level of job embeddedness. Concerning El Salam Hospital two thirds of nurses had high level of job embeddedness, and minority of them had low level of job embeddedness.

Table (4): Illustrates total levels of nurses' job embeddedness dimensions at Tanta Main University and El Salam Hospitals. It was noticed that nurses job embeddedness fit, sacrifice, and link dimensions were to be statistically significant at $p \leq 0.05$ between the two hospitals. Regarding Tanta main University Hospital more than half (59.8%, 57.3, and 53.8%) of nurses had high level of perception regarding organizational links, organizational sacrifice, and organization fit dimensions respectively. Concerning El Salam Hospital the majority (82.9%, 75.3%, and 75.3%) of nurses had high level of perception

regarding organizational links, organizational sacrifice, and organization fit dimensions respectively.

Table (5): Illuminates the correlation between head nurses' managerial intelligence as perceived by nurses, nurses thriving and job embeddedness at Tanta Main University and El salam hospital the results showed that there were statistical significant correlations regarding Tanta Main University and Salam nurses' perception of head nurses' managerial intelligence and their thriving at work place and job embeddedness and at $p \leq 0.05$.

Discussion

Nursing is a demanding job in which nurses are always under stress and confront a variety of problems in providing care for patients and achieve hospital objectives. Intensive care (IC) nurses, in particular, frequently face enormous loads in adding to the difficulty of care offered to critically sick patients. All of these challenges obligate the head nurse to use their managerial intelligence to achieve organization goals by creating a positive work environment for nurses' thriving that consequently increase their job embeddedness and performance (Mohamed & Ali 2020).

Head nurses' managerial intelligence as perceived by nurses

According to the study's findings, around two-thirds of nurses at El Salam Hospital and over half of nurse at Tanta Main University Hospital possessed a high level of perception regarding their head nurses' managerial intelligence. These results may be related to that both hospitals offer for head nurses more chances to obtain management education program that assist them in understanding and comprehend managerial intelligence.

In the same scene, Dargahi & Veysi (2021) results concluded that a desirable level of managerial intelligence among study's participants. As well Mosadeghrad & Abbasi (2020) found that nurse manager scored high in managerial intelligence. Haier (2017) demonstrated that head nurses who have managerial intelligence have the ability to anticipate challenges, catch opportunities, and overcome obstacles and difficulties and create nurses' thrive.

According to the findings of the current study, a large percentage of nurses at El-Salam hospital as well as about two thirds of nurses at Tanta Main University Hospital had high level of perception regarding head nurses cognitive intelligence dimension. This may be because of head nurses at El slam Hospital as well as at Tanta Main University Hospital has the ability to carry out mental processes such as reasoning, criticism, rational and judgment,

use conflict management styles to resolve conflict and takes corrective action in response to work place problems.

In this aspect, Rana (2017) stated that cognitive intelligence involves the capability to reason, plan, solve problems, think abstractly, comprehend difficult concepts, learn quickly, and learn from experience. Also, Aslam et al (2016) confirmed the current finding and disclosed cognitive intelligence of manager has positive impact on nurses.

According to recent findings high percent of nurses at El-Salam hospital and above than half of nurses at Tanta Main University Hospital had high level of perception regarding their head nurses' emotional intelligence. These results could be attributed to that nurses at the two hospitals may have head nurses attentive of nurses' emotions and maintain good mood even if something bad happen and regulating emotions to maintain the social relationships.

Along with these results were Ugoani (2019) who found that nurses scored their manager total emotional intelligence as high. Also Ikmoradi et al., (2018) revealed that, nursing managers had a high level of emotional intelligence. Conversely, Lachine et al (2020) and vahidi et al., (2016) indicated that the majority of the nurses had low emotional intelligence. The results of the current study indicated that a large percentage of nurses at El-Salam hospital and more than half of nurses at Tanta Main University Hospital had high level of perception regarding head nurses social intelligence. This is can be due to nurses in both hospitals perceive their head nurses had the ability to influence others and help each nurse within the group when she need, enhancing good communication and speak in effective manner with other, maintain good cooperation and collaboration with other, allow nurses form friendship and alliance and work together as a team.

These findings of the present study were congruent with the results of Babu et al. (2021), and Vatanasin & Thailand (2018) who discovered that nurses had high levels of social intelligence. On contrary, Saleh (2022), Uygun & Aribas (2020), Ibragimov et al. (2020), and Garg & Gera (2019) found that more over half of the head nurses have a moderate degree of social intelligence.

Nurses' thriving at workplace

The current result exposed that three quarters of nurses at El Salam hospital and more than half of nurses at Tanta Main University Hospital had high level of thriving at workplace. These may be due that nurses at both hospitals continually feel energy and sprit , looking forward at each new days, need to developed themselves, have a confidence to master

difficult tasks, and apply valuable knowledge and skills.

The current results agreement with **Abou Ramadan (2020) & Silen, et al (2019)** exposed a high level in workplace thriving among nurses. But, **Aly & Obied (2022)** not support the present findings and cleared that more than half of intensive care nurses reported a moderate level of overall workplace thriving. Also **Walt (2018) & Gao et al., (2017)** exhibited low and moderate levels of workplace thriving among nurses. Existing research findings revealed that two thirds of nurses at El Salam hospital and more than half of nurses at Tanta Main University Hospital had a high level of vitality dimension. Additionally, the majority of nurses at El Salam hospital and more than half of nurses at Tanta Main University Hospital had a high level of learning dimension. This due to that there training and continuing education units in these hospitals that work on developing nurses by attending workshops and training courses on all that is new in their field of specialization.

In agreement, **Sharaf (2021)** shown that the greatest proportion of nurses had high levels of vitality and learning thriving dimensions at work. Conversely , **Aly & Obied (2022)** discovered that around half of ICU nurses had a moderate level of the learning dimension and more than half had a low level of the vitality dimension of workplace thriving.

Nurses' job embeddness

The research findings noted that almost a third of nurses at El Salam Hospital and more than half of nurses at Tanta Main University Hospital had a high level of job embeddness. This finding evidenced by more than half of nurses at Tanta Main University Hospital and high percent of nurses at El Salam Hospital had a high level of agreement regarding organization fit, sacrifice, and links dimensions of job embeddness. Additionally, these results may be attributed to nurses at both hospitals having the head nurse encourage them to be more committed to or stay in their jobs and they see leaving their hospital a big issue. As well as building strong relationships teamwork and the special bonds that the intensive care nurses form at both hospital may consider major contributors to job embeddness.

The present findings agreed with **Karatepe & Avci (2019)** and **Dechawatanapaisal (2017)** who found high levels of job embeddness among nurses. In contrast to these results, the research of **Aly & Obied (2022)** who discovered that a high percent of intensive care nurses possessed a low level of overall job embeddness. Also, **Mohamed & Ali (2020)** who reported that the majority of staff nurses displayed low responses toward job embeddness. Similarly, **Elsababy et al. (2019)** observed that

almost half of the nurses investigated had a moderate level of job embeddness.

The current finding revealed that high percent of nurses at El Salam hospital as well as more than half of nurses at Tanta Main University Hospital had high level of organization fit dimension .These may be due to nurses their values and goals are compatible with hospital goals and values and the hospital meet nurses expectation and utilize nurses ability and skills well and nurses feel good about professional growth and advancement.

In this context **Faisel (2022)** supported the present finding and indicated that the hospital match between nurses needs and preference at work place also matches between nurses personality and organization culture and there are positive relation between person and organization fit . Also, **El-gazar (2022)** indicated that nurses had a good fit and attachment to their organization. In contrast **Aly & Obied (2022)** exposed that low levels of agreement regarding organization fit.

The current finding revealed that majority of nursing at El Salam hospital and more than half of nurses at Tanta Main University Hospital had a high level of organization sacrifice and organizational link dimensions. This might be because nurses had a lot of flexibility on the work to choose how to pursue their goals, they were respected by others, and they were rewarded for their performance.

Dechawatanapaisal (2017) stated that nurses had formal and informal connections with work seem to exhibit desirable outcomes. **Ampofo et al (2017)** supported the present finding and reported that organization sacrifice and link foster nurses life satisfaction, enhance better performance , and reduce turnover among nurses as well as, organization sacrifice mediated the linkage between motivation – enhancing human resource practice . But, **Aly & Obied (2022)** don't support the present finding and revealed the majority of nurses had low level of agreement regarding -organization sacrifice and link.

Correlation between head nurses' managerial Intelligence, nurses thriving and Job embeddness at Tanta Main University and El Salam International Private Hospital

The existing study result presented statistically significant correlations between Tanta Main University and El Salam International Private Hospital regarding nurses' perception of head nurse managerial intelligence, job embeddness and thriving at workplace. This can be related to Head nurse managerial intelligence aids in the allocation of resources within a healthcare organization, the promotion of efficiency, and the achievement of goals. It also aids in the development of new methods for sustaining, retaining, developing, and

inspiring nurses and prospering. As a result, nurses will be better prepared to deal with career changes and become more embedded in their jobs. Job embeddedness, which considers as a source for workplace thriving. The current finding go in the same line with those **El-Zaiade (2022) & Ali (2018)** who discovered that job embeddedness and workplace thriving were strongly positively and meaningfully correlated, the more embedded nurses, the more thrive at work.

The study findings showed that high percent of nurses at El Salam Hospital had a high level of perception regarding their head nurses' managerial intelligence, job embeddedness and thriving at workplace as a whole compared with nurses at Tanta Main University Hospital. This outcome may be explained by the fact that El Salam Hospital's head nurses work in a private international hospital, which has better characteristics for nurses' professional practises and best performance than a government-run public hospital and offers them more opportunities for ongoing education, high pay, and career advancement. As a result, head nurses at El Salam Hospital committed all of their attention to taking care of nurses, meeting nurses' requirements according to their own wants, and caring more about nurses' personal life than Tanta Main University Hospital. Present results in agreement with **Abdalla & Mostafa (2021)** whose found that a large percentage of nurses are content with their head nurses who encourage them to create strong relationships, give training opportunities, handle difficulties, adapt to change, and care about their needs and desires.. Also, **Oliveira (2017)** support the present finding who found that the best performance demonstrated by majority of private hospital due to the competitiveness of the market which require the constant review of the process to maintain sustainability. But, **Ullah et al (2018)** not support the present finding and found that majority of nurses work in public hospital are more satisfied than in private hospital.

Conclusion

In light of the study results, there is a probability of refining the nurses' thriving at work place and job embeddedness through improving their head nurse managerial intelligence. At El Salam Hospital high percent of nurses had a high perception level regarding their head nurse managerial intelligence, job embeddedness and thriving at work place .As well as at Tanta University Hospital above half of nurses had a high perception level to their head nurse managerial intelligence, job embeddedness and thriving at work place. Nurses at El Salam Hospital had high level of perception regarding head nurse

managerial intelligence, nurses' job embeddedness and thriving at workplace as a total compared with nurses at Tanta Main University Hospital. Statistical significant positive correlations found among head nurse managerial intelligence, nurses' job embeddedness and nurses' thriving at work place at El-Salam hospital and Tanta Main University hospital.

Recommendations

On basis of study findings, the following recommendations:

For head nurses

- Continuous attending training programs to refresh their knowledge and skills related to managerial intelligence and causes and consequences of nurses' job embeddedness and thriving at work place.
- The head nurses offer chances for nurses to grow and progress.

For hospital administration

- Assess head nurses to develop managerial intelligence
- Managerial intelligence is necessary competency required in the recruitment of competent head nurses.
- To promote nurses job embeddedness and thriving, it is necessary to improve their head nurses' managerial intelligence.
- Give continuing education program without limitations for intensive care nurses.

Further Researches

- It would be advantageous to replicate this study in other contexts to increase the generalizability of the findings.
- Conduct educational programs about managerial intelligence and it is effect on nurses performance and patient outcomes.

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