

## Relationship between Staff Nurses' Performance Appraisal and their Work Engagement

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### Abstract

**Background:** Performance Appraisal (PA) is a vital key in achieving future developments through establishing future goals of organizations. Furthermore accurate, fair, effective and efficient performance appraisal plays a significant role in creating the aptitudes of staff nurses; making them feel that their work is appreciated ; and increasing their level of motivation and commitment toward the organization and the nursing profession. **Aim:** To determine the relationship between staff nurses' performance appraisal and their work engagement at Housh Eissa Central Hospital. **Design:** A descriptive correlational research design was utilized to conduct this study. **Setting:** This study was conducted at Housh Eissa central hospital. **Subjects:** staff nurses who were working in the previously mentioned setting(n=220). **Tools:** two tools were used. Tool one: "Performance Appraisal Questionnaire ". Tool two: "Job Engagement Scale ". **Results:** The results of this study revealed that overall mean percent score of total performance appraisal was high . Also, overall mean percent score of work engagement was high. Regarding relationship between performance appraisal and work engagement there was intermediate statistical significant differences between all levels of performance appraisal and all levels of work engagement (p=0.000). **Conclusion:** The finding of this study concluded that, there was a significant positive intermediate correlation between staff nurses' total performance appraisal and their work engagement, where  $p = 0.000$  and  $r = 0.477$ . **Recommendations:** The outcome of appraising staff nurses' performance should be utilized to develop the aims, plans and future development .

**Keywords:** Performance appraisal , Work engagement, Healthcare, .

### Introduction

The demand for healthcare services is rising rapidly as a result of increasing the number of population; higher percentage of older patients; increasing the cost of new machines; and shortages of equipment, supplies and skilled labor in many medical professions, which in turn make healthcare services less affordable. Consequently, healthcare systems have been under tremendous pressure to significantly improve efficiency, experiences and the quality of their services by managing staff behaviors and skills; updating their knowledge to deal with new developments; and demonstrating a high level of accountability, initiative and engagement at work with a strong focus predominantly on financial outcomes. Moreover, human resource management focuses on personnel related areas such as job design, resource planning, recruitment, selection, compensations, staff ' relations and Performance

Appraisal (PA)( (National Academies of Sciences & Medicine Division, 2018; Flaubert, Le Menestrel & Williams 2020 ; and Salehzadeh & Ziaieian, 2024 ).

According to Kahya & Oral (2018), PA is defined as: " a procedure to evaluate how staff nurses perform, how they can improve their performance and how to improve the overall organizational performance". In addition, Mohamed & Hussien (2023) specified it as the process by which a group of staff nurses' behaviors, results and work characteristics are evaluated individually over a period of time, typically utilizing a yearly evaluation by their supervisors. Furthermore, Abdikheir (2023) identified it as: "the systematic process of assessing and evaluating staff nurses' job performance based on predefined criteria, such as: job knowledge, quality of work, communication skills and teamwork". Moreover, (Agmadige, Kirimi &

**Njeru,2023**) PA is mentioned that PA is a vital tool used by organizations to evaluate the performance of their working force that assists managers in identifying the strengths and weaknesses in their performance as well as providing feedback to update and develop their competences.

According to (**Sualihu, 2014**), PA has five dimensions namely: appraisal systems and procedures that are determined based on performance criteria; appraisal process, it is the series of steps which are undertaken in an organization to evaluate staff nurses on a set of pre-defined performance goals; staff nurses' perception of performance appraisal, which refers to staff nurses' feeling with PA systems as some of them believe it carry some biases and fail to meet its objectives and others find it a means to justify their performance; challenges of performance appraisal ,which means obstacles that facing appraisal process ;and finally effectiveness of appraisal systems, it is an external standard of how well the system is meeting the demands of the various groups and organizations that are concerned with its activities.

Managing performance of staff nurses is a vital key in achieving future developments through establishing future goals, setting predetermined standards, evaluating their level of competency and creating suitable training program based on the weaknesses that have been recognized (**Rubel & Kee, 2015** ). Moreover, accurate, fair, effective and efficient PA plays a significant role in creating the aptitudes of staff nurses; making them feel that their work is appreciated ; increasing their level of motivation and commitment toward the organization and the nursing profession; and reinforcing effective interpersonal communication between staff nurses and their evaluators (**Gunawan, Aunguroch & Fisher, 2019** ).

Performance appraisal improve quality of healthcare facilities; and ensure the provision of safe and high-quality care for the patients(**Ojokuku & Effect,2013**). Furthermore, PA system encourages staff nurses to take initiative and be actively involved in hospital

system; and provides staff nurses with constructive feedback about their performance which help them to identify their learning needs. These lead to intrinsic motivation, higher job satisfaction, better mood at work, positive work attitudes and high performance outcomes, which in turn increase staff nurses' Work Engagement ( WE) (**Jaber, Alshodukhi & Bindahmsh, 2024** ).

Work engagement was identified by (**Hanaysha, 2016**) as: " a positive attitude that held by the staff nurses towards the organization and its values". Also, (**Mohamed, Sharaf & Sleem, 2021**) specified WE as: " an active and satisfying concept that reflects the simultaneous expression of the multidimensional context: physical, emotional and cognitive". Moreover, WE is defined by (**Slåtten, Lien & Mutonyi, 2022**) as "a positive, fulfilling, work-related state of mind, which embraces three interconnected types of feelings, namely: absorption, vigor and dedication". Furthermore, (**Al-Ahmari & Kattan, 2024**) defined it as: "a satisfying state of mind characterized by vigor, dedication and absorption elements, which are essential for staff nurses to view their work as meaningful and inspiring."

Up to the researcher's knowledge, few attempts have been made nationally to examine the Relationship between Staff Nurses' Performance Appraisal and Their Work Engagement. It is hoped that this study will provide more focus on PA to encourages staff nurses to take initiative and be actively involved in hospital system; and provides staff nurses with constructive feedback about their performance which help them to identify their learning needs .

### **Significance of the study**

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Performance appraisal is essential component of healthcare organizations to ensure that the high quality of care is met. It helps for identifying the staff nurses' weaknesses and strengths, making new plans for improving weaknesses, motivating by appreciating their positive points and concerning with giving staff nurses a sense of belongingness and being valued by their hospital. Performance appraisal

is enhanced by staff nurses' participation and their commitment to the hospital and the clarity of organizational goals. (Moradi, Mehraban & Moeini, 2017; and Nikpeyma, Saeedi & Azargashb, 2024)

### **Aim of the Study**

This study aimed to determine the relationship between staff nurses' performance appraisal and their work engagement at Housh Eissa Central Hospital.

### **Research question**

What is the relationship between staff nurses' performance appraisal and their work engagement at Housh Eissa Central Hospital.

### **Materials and Methods**

**Design:** A descriptive, correlation research design was used to conduct this study.

**Setting:** This study was conducted at Housh Eissa Central Hospital at El-Beheira Governorate. This hospital is affiliated to the Ministry of Health and Population with bed capacity 163 beds. It includes all patient care units (N=23), namely: Intensive Care Units (ICU) (n=3); out-patient care units (n=10); in-patient care units (n=8); emergency unit (n=1); and finally dialysis unit (n=1).

**Subjects:** The subject of this study included.

The subject of this study included staff nurses who were working in the previously mentioned setting with experience more than six months (n = 220) and who were available during the time of data collection and willing to participate in this study. According to the Epi Info 7 sample size estimation program, they were divided as follows: staff nurses with Bachelor Nursing Science degree (n = 23); staff nurses with Technical Nursing Institute diploma (n = 152); and staff nurses with Secondary Nursing School diploma (n = 45) based on the following parameters:

- Total population size = 415.
- Prevalence sample size = 50%.
- Margin of error = 5%.
- Confidence level = 95%.
- Minimum sample size = 199 staff nurses
- The final sample size was 220 staff nurses for possible non-response.

**Tools:** The study used two tools for data collection:

**Tool (I): Performance Appraisal Questionnaire.** It was developed by Sualihu (2014) and was adapted by the researcher based on review of related literature to assess staff nurses' PA. It consists of five main dimensions with 30 items, as follows: appraisal systems and procedures (6 items), such as: the hospital has got an appraisal system in place; appraisal process (8 items), such as: The appraisal process is fair; staff nurses' perception of performance appraisal (5 items), such as: I do not show cooperation in the appraisal process; challenges of performance appraisal (6 items), such as: the cost of financing the process is a challenge; and finally, effectiveness of appraisal systems (5 items), such as : It aids the development of reward systems . Responses were measured using a five- point Likert, ranging from 1 (strongly disagree) to 5 (strongly agree). The overall score level ranges from 30 to 150. The scoring system was categorized as follows: low level of performance appraisal 0.0% < 33.3% (30-69); moderate level of performance appraisal 33.4% < 66.6% (70-109); and high level of performance appraisal >100.0 % (110-150).

**Tool (II): Job Engagement Scale.** It was developed by Rich, Lepine, and Crawford (2010) and was adopted by the researcher to assess staff nurses' W.E. It consists of three main dimensions with 18 items as follows: physical engagement (6 items), such as: I work with intensity on my job; emotional engagement (6 items), such as: At work, I devote a lot of attention to my job; and finally cognitive engagement (6 items), such as: I am proud of my job. Responses were measured using a five - point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The overall score level ranged from 18 to 90. The scoring

system was categorized as low level of work engagement 0.0% < 33.3% (18-41) ; moderate level of work engagement 33.4% < 66.6% (42-65); and high level of work engagement 33.4% < 66.6% (66-90).

### Methods

1-An official permission was obtained from the Dean of the Faculty of Nursing at Damanhour University and the responsible authorities of the study setting after an explanation of the purpose of the study.

2-The two tools of the study were translated into Arabic and were submitted into both Arabic and English languages to a jury consisting of five experts in the field of the study from the Faculties of Nursing, Damanhour and Alexandria University to test its content validity and translation. They were: one professor, one assistant professor and two lecturers of nursing administration, Faculty of Nursing, Damanhour University; and one lecturer of nursing administration, Faculty of Nursing, Alexandria University. Accordingly, the necessary modifications were done based on their opinions.

3-A pilot study was carried out on 10% of the total sample size rather than study subjects (n = 22) in order to check and ensure the clarity, feasibility and applicability of the tools and identify obstacles and problems that may be encountered during data collection; and the necessary modifications were done.

4-The two tools of the study were tested for their reliability using Cronbach's alpha coefficient test. The two tools proved to be reliable: alpha =.887 for tool I (performance appraisal questionnaire) and alpha =.948 for tool II (job engagement scale).

5-Data collection: Data were collected from the staff nurses at their work setting by the researcher through self-administered questionnaires after an explanation of the aim of the study using the previously mentioned tools. Instructions were given before the distribution of the questionnaires.

○ The questionnaires were completed in the presence of the researcher to ensure the objectivity of staff nurses' responses, the non-contamination of their opinions and to check that all items were answered.

○ Answering the questionnaires took approximately 15-20 minutes. Data collection took a period of three months, starting from the first of August 2023 to the end of October 2023. All questions were answered and explanations were given accordingly.

### Ethical Considerations

○ The research approval was obtained from the ethical committee at the Faculty of Nursing-Damanhour University, prior to the start of the study.

○ An informed written consent was obtained from the study subjects after an explanation of the aim of the study.

○ Privacy and confidentiality regarding data collected was maintained and assured.

○ The rights to refuse to participate or withdraw from the study at any time were ensured during the study.

○ Anonymity of the study subjects was considered.

### Statistical analysis:

The collected data was revised , categorized , coded , computerized , tabulated and analyzed using Statistical Package for Social Sciences (SPSS) version 25.0. Reliability of the tools was determined by Cronbach 's alpha and presented in descriptive and association forms .The necessary tables were then developed .

### The following statistical analysis measures were used:

a. **Descriptive statistics** : It included frequency ,percent and Mean with standard Deviation (Mean  $\pm$ SD) , Min –Max and mean percent score to describe and summarize the scale and categorical data p value  $\leq 0.05$  was considered statistically significant and p value  $\leq 0.01$  was considered highly statistically significant.

$$\text{Mean} = \frac{\sum x_i}{n}$$

$$\text{SD} = \sqrt{\frac{\sum x^2 - \frac{(\sum x)^2}{n}}{n-1}}$$

Where

$\sum x$  = sum of observation .

$\sum x^2$  = sum of the squared observation

n=Number of observation .

**b. Analytic statistics:** Deferential analysis was done for quantitative variables using chi square test in cases of two independent variables with parametric data .

- **chi square test** was used to examine relationship between variables

$$X^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Where

$X^2$  = chi- square .

O= the frequencies observed .

E=the frequencies expected .

• **The pearson correlation coefficient test** was used to explore relationship between staff nurses' performance appraisal and their work engagement.

• **A correlation matrix** is a square matrix that shows the correlation coefficients between two variables . Correlation coefficients measure how strong and in which direction two variables are linked in straight line .

• **Multivariate regression** is a technique that estimates a single regression model with more than one outcome variable. When there is more than one predictor variable in a multivariate regression model.

• **Monte Carlo simulation** is a model used to predict the probability of a variety of outcomes when the potential for random variables is present.

• **Graphical presentation:** Bar graphs were done for data visualization using Microsoft Excel.

## Results

**Table 1** shows that the age of study subjects interviewed ranged from 22 to 52 years with a mean of  $29.4 \pm 7.521$  years; the highest percentage (34%) of the study subjects were in the age group ranged from 25 to less than 30 years

old, followed by those in the age group ranged from 30 to less than 35 years old (29.1%). Moreover, it reveals that all study subjects (100%) were female. In relation to marital status, the majority of them (91.4%) were married. Furthermore, this table illustrates that about two-thirds (69.1%) of the study subjects had a Technical Nursing Institute diploma, while less than one-quarter (20.5%) of them had a Secondary Nursing School diploma.

Moreover, this table reveals that years of nursing experience ranged from 1 to 23 years with a mean of  $8.210 \pm 5.341$  years; and about one third of study subjects (35%) had from 15 to less than 20 years of the same experience, while one quarter (25.0%) of them had years of nursing experience ranging from 10 to less than 15 years of experience. Furthermore, this table illustrates that years of unit experience ranged from 1 to 18 years with a mean of  $6.480 \pm 4.315$  years; and the highest percentage of them (38.2%) had from 5 to less than 10 years of unit experience, while about one quarter of them (25.9%) had from 10 to less than 15 years of the same experience. In addition, this table indicates that near third of study subjects (30.5%) were working at surgical units.

**Table 2** illustrates that the overall mean percent score of total performance appraisal was high (74.99%) with a total mean score of  $112.49 \pm 13.94$ . In addition, the highest mean percent score was related to the appraisal systems and procedures dimension (84.07%), with a mean score of  $25.22 \pm 3.502$ . On the other hand, the lowest mean percent score was related to the effectiveness of the appraisal systems dimension (70.88%), with a mean score of  $17.72 \pm 3.669$ .

**Table 3** illustrates that the overall mean percent score of work engagement was high (80.31%) with a total mean score of  $72.28 \pm 10.75$ . In addition, the highest mean percent score was related to the emotional engagement dimension (82.20%) with a mean score of  $24.72 \pm 3.862$ . On the other hand, the lowest mean percent score was related to the cognitive engagement dimension (78.97%) with a mean score of  $23.69 \pm 4.667$ . Furthermore, the range is descending as follows: emotional engagement, physical engagement, and cognitive engagement, respectively.

**Figure 1** displays that about two-thirds of study subjects (71.8%) had high level of total performance appraisal, while about more than one

quarter (28.2%) had moderate level of total performance appraisal; and no study subjects had low level of total performance appraisal. Moreover, the highest percentage of them (89.5%) had high level of performance appraisal systems and procedures dimension; and 46.8% of them had moderate level of performance appraisal process dimension .

of total work engagement, while less than one-quarter (19.5%) had a moderate level of total work engagement; and no study subject had low level of total work engagement. Furthermore, the highest percentage of them (83.2%) had a high level of emotional engagement dimension, while about one-quarter of them (25.5%) had a moderate level of cognitive engagement dimension.

Figure 2 displays that more than two-thirds of study subjects (80.5%) had a high level

**Table (1): Distribution of the study subjects, working at Housh Eissa Central Hospital according to their demographic characteristics (n=220) .**

Demographic Characteristics of study subjects .	Study subjects (n=220)	
	No.	%
<b>Age (years)</b>		
• <25	19	8.6
• 25-<30	75	34
• 30-<35	64	29.1
• 35-<40	27	12.3
• 40-<45	14	6.4
• 45-<50	18	8.2
• ≥50	3	1.4
<b>Min – Max 22-52 Years</b>	<b>Mean ±SD 29.4± 7.521</b>	
<b>Gender</b>		
• Male	0	0
• Female	220	100
<b>Marital status</b>		
• Single	6	2.7
• Married	201	91.4
• Widow	6	2.7
• Divorced	7	3.2
<b>Educational qualification</b>		
• Secondary Nursing School Diploma	45	20.5
• Technical Nursing Institute Diploma	152	69.1
• Bachelor Nursing Sciences Degree	23	10.4
<b>Years of nursing experience</b>		
• <5	14	6.4
• 5-	42	19.1
• 10-	55	25.0
• 15-	77	35.0
• ≥20	32	14.5
<b>Min – Max 1.0-23 Years</b>	<b>Mean ±SD 8.210 ± 5.341</b>	
<b>Years of unit experience</b>		
• <5	52	23.6
• 5-	84	38.2
• 10-	57	25.9
• 15-	24	10.9
• ≥20	3	1.4
<b>Min- Max 1.0- 18.0</b>	<b>Mean ± SD 6.480 ± 4.315</b>	
<b>Working unit</b>		
• Emergency and dialysis units	17	7.7
• Outpatient units	20	9.1
• Medical units	55	25
• Surgical units	67	30.5
• ICUs	61	27.7

**Table (2): Mean percent scores of performance appraisal among study subjects, working at Housh Eissa Central Hospital (n= 220).**

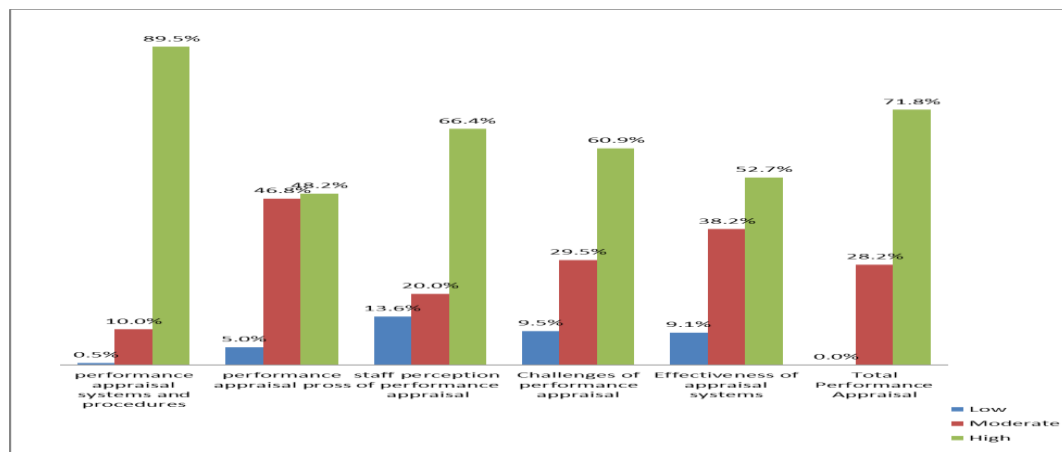
Dimensions of performance appraisal	Min –Max	Mean ± SD	Mean Percent Score	Rank
• Performance appraisal systems and procedures.	12.0-30.0	25.22±3.502	84.07%	1
• Performance appraisal process.	8.0-40.0	28.42±6.239	71.05%	4
• Staff perception of performance appraisal.	5.0-25.0	19.41±5.177	77.64%	2
• Challenges of performance appraisal .	6.0-30.0	21.72±5.412	72.40%	3
• Effectiveness of performance appraisal systems.	7.0-25.0	17.72±3.669	70.88%	5
• Total Performance Appraisal.	<b>74.0-137.0</b>	<b>112.49±13.94</b>	<b>74.99%</b>	

- Low = mean score less than 33.3%
- Moderate = mean score from 33.3% to less than 66.7%
- High = from 66.7% till 100.0%

**Table (3): Mean percent scores of work engagement among study subjects, working at Housh Eissa Central Hospital.**

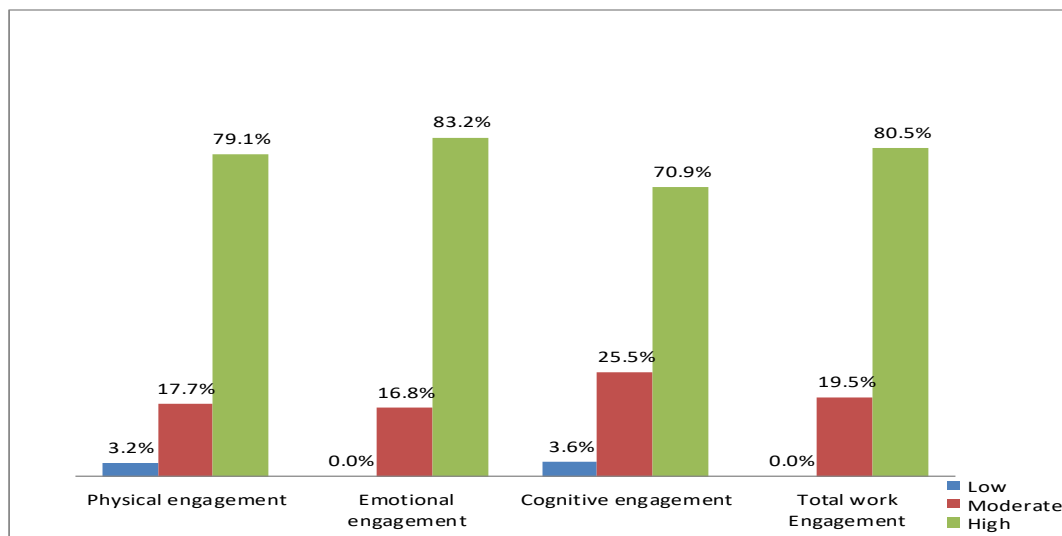
Dimensions of work engagement	Min –Max	Mean ± SD	Mean Percent Score	Rank
• Physical engagement	12.0-30.0	23.87±4.341	79.57%	2
• Emotional engagement	16.0-30.0	24.72±3.862	82.20%	1
• Cognitive engagement	10.0-30.0	23.69±4.667	78.97%	3
<b>Total Work Engagement</b>	<b>45.0-90.0</b>	<b>72.28±10.75</b>	<b>80.31%</b>	

- Low = mean score less than 33.3%
- Moderate = mean score from 33.3% to less than 66.7%
- High = from 66.7% till 100.0%



- Low level of performance appraisal (30-69) (0-<33.3%)
- Moderate level of performance appraisal (70-109) (33.3-<66.7%)
- High level of performance appraisal (110-150) (66.7-100%).

Figure 1: Levels of performance appraisal among study subjects, working at H o u s h Eissa Central Hospital (n=220).



- Low level of work engagement (18-41) (0-<33.3%)
- Moderate level of work engagement (42-65) (33.3-<66.7%)
- High level of work engagement (66-90) (66.7-100%)

Figure 2: Levels of work engagement among study subjects, working at H o u s h Eissa Central Hospital (n=220) .

**Discussion**

Healthcare systems are fast-developing systems that require staff nurses to update their knowledge and manage their behaviors and skills effectively. Performance appraisal system is an essential tool of managing behaviors through assessing the level of staff nurses’

competency as well as developing appropriate training programs based on the weaknesses that have been identified to close the gaps in performance and achieve the ultimate goal of improving patient care outcomes. PA system is the right instrument that plays a vital role directly or indirectly in achieving hospital targets through improving the interpersonal relationship among staff nurses; and modifying



their practices. When PA characterized by effectiveness, efficiency, clearness and fairness; and the result of it is communicated to staff nurses during the PA process, staff nurses become more interest and have enthusiasm in their work which in turn increase their level of performance and enhance their engagement at work. (Welch & Carter, 2018; Memon , Salleh & Mirza , et al, 2020; Dubey & Verma, 2022; and Ndlovu, 2023 )

The result of this study revealed that the overall mean percent score of PA was high as perceived by staff nurses. From the researcher point of view, this may be due to assumption that the hospital has a good PA system which is an important element for hospital as the potential performance implications for staff nurses as well as hospital follows a regular structured formal communication process typically between the head nurses, supervisors and director of nursing service concerning the staff nurses' performance. Moreover, staff nurses believe that the appraisal system has a positive impact on their career advancement and opportunities for professional development. This perception can be influenced by factors such as promotion opportunities, availability of training programs and recognition for effective performance.

In this respect, in Egypt a study had been made by (Ibrahim & Abdelaziz, 2019) about nurses' perception of performance appraisal and its effect on their work outcomes. ; in South Africa a study had been made by (Jawahar, 2019) about relationship between perceived performance appraisal justice on employee engagement outcome variables ; and a study had been done in Egypt about relationship between work design characteristics and work engagement among staff nurses ,by (Fahmy, Shazly & Soliman, 2021) revealed that perception of the staff nurses regarding to their PA was high and concluded that PA systems, process and procedure applied in objective manner and the PA system help staff nurses to identify their areas of improvement. This result also supported by a study that had been made in Egypt about staff nurse's perception about performance-appraisal fairness and its relation to their work engagement.by (Hamdeen, Elewa

& Mohamed 2022), who found that staff nurses highly perceived all domains of PA as a result of head nurses understand PA process, apply standards effectively, provide constructive feedback, perform regular assessment of needs for development and maintain good relationships with staff nurses . On the other hand, this study finding contradicted with a study in Korea about Problems of clinical nurse performance appraisal system .It had been made in by ( Nikpeyma et al., 2014) ; and a study in Egypt about the influence of performance appraisal satisfaction on nurses' motivation and their work outcomes in critical care and toxicology units. That had been done by ( Aly & El-Shanawany 2016), who concluded that staff nurses perceive PA at low level and there were resistance forces that obstacle their satisfaction with PA process. Moreover, a study in

Indonesia about influence of performance appraisal fairness and job satisfaction through commitment on job performance. That had been done by (Setiawati & Ariani, 2020) ; and a study in Egypt about relationship between fairness of performance appraisal and nurses' work motivation, which made by (Sarhan, Abd El-Rahman & Elzohairy, 2023) revealed that study subjects moderately perceived all domains of PA.

In addition, the result of this study concluded that the highest mean percent scores of PA as perceived by staff nurses was related to appraisal systems and procedures dimension. This could be rationalized by the assumption that the studied hospital has got performance appraisal system in the place; the assessment tools are structured with clear explanations about the criteria to be assessed; and key performance criteria (competencies, behaviors and results /outcomes) have been clearly identified in the appraisal system. Additionally, the performance appraisal system is supported from the various stakeholders on the hospital and the appraisal tool has been extracted from an up-to-date job description. As well as, staff nurses view PA as fair and unbiased; and provide them with feedback about weakness and strength area regarding their performance.

This finding goes in the same line with the study in Iran about the correlation between quality of performance appraisal and job satisfaction of nurses that had been done by (**Ghamari et al., 2013**), who reported that studied nurses were satisfied about PA system and procedures, as they perceived it as a learning tool. Furthermore, a study in Ghana about effectiveness of performance appraisal systems, that had been made by (**Sualihu, 2014**) and (**Dangol 2021**) revealed that study subjects have high perception levels of the PA systems and procedures due to the assessment tools are structured; and there are clear explanations about performance standards and the criteria to be assessed. On the other hand, this result is antagonized by (**Nikpeyma et al., 2014**); and a study in Czech about Performance management and performance appraisal made by (**Špalková, Špaček & Nemeč, 2015**), who found perceiving PA systems and procedures at the lowest score and revealed that the hospital does not consider PA to be necessary.

Regarding, staff nurses' perception of work engagement, the result of this study revealed that the overall mean percent score of WE was high. From the researcher point of view, this may be attributed to the hospital administration and head nurses support and motivate staff nurses to be more engaged at work through providing supportive work environment that encourage perceptions of fairness within their work; providing policies, procedures and practices for the protection of staff nurses' psychological health; and the availability of motivators, incentives, freedom to make decisions (autonomy) and opportunities for improvement. Moreover, this may be because of staff nurses are intensely aware of their mission and responsibility in their work environment.

This result agrees with a study in Egypt by (**Mousa, EldinFekry & Elewa, 2019**) relationship between nurse manager leadership style and staff nurses' work engagement; and study in Egypt about organizational support and work engagement among head nurses. By (**Radwan, 2019**), who revealed that the highest percentage of studied nurses had a high perception of WE at their hospital as they receive support from their supervisors and

experience a psychologically safe work environment. Furthermore, a study that had been made in Egypt about staff nurse's perception about performance-appraisal fairness and its relation to their work engagement. It had been made by (**Hamdeen, Elewa & Mohamed, 2022**); and a study in Egypt about relationship between work design characteristics and work engagement among staff nurses, which done by (**Ahmed , Shazly & Abdrabou, 2024**) showed that staff nurses had high mean percent score of WE and stated that hospital supports and motivates staff nurses to be more engaged at work through providing supportive work environment that encourage perceptions of fairness within their work. On the other hand, this study finding inconsistent with a study in England about effects of work environment and job characteristics on the turnover intention of experienced nurses, which made by (**Wan et al., 2018**); and a study in United States by the associations among nurse work engagement, job satisfaction, quality of care, and intent to leave, which done by (**Wei et al., (2023)**), who found that studied nurses had low level of WE as a result of difficult working conditions and perceived physical and psychological risks, which significantly decreased work engagement and retention while worsening staff shortages .

Concerning WE dimensions, the result of this study concluded that the highest mean percent score was related to emotional engagement dimension followed by physical then cognitive dimension as perceived by the staff nurses. This may be due to the staff nurses feel energetic, interested, excited and proud about their job. Additionally, they feel positive about their job, have a profound connection to their hospital and are engaged with its vision and mission; and they get a sense of joy and non-monetary reward from their job.

This study finding is consistent with a study Brazil about Work engagement among participants of residency and professional development programs in nursing made by (**Lourenção, 2018**); a study in Egypt about staff nurse's perception about performance-appraisal fairness and its relation to their work engagement that had been done by (**Hamdeen, Elewa & Mohamed, 2022**); a study in Saudi

Arabia personal and job-related factors influencing the work engagement of hospital nurses, which made by (Alkorashy & Alanazi, 2023); and a study in Egypt about relationship between work design characteristics and work engagement among staff nurses, which done by (Ahmed , Shazly & Abdrabou, 2024), who showed that the highest mean percent score of WE were found for the emotional dimension while, the lowest was recorded for the cognitive dimension and stated that staff nurses feel positive and interested about their job; and adhere to hospital mission and vision. From different point of view's this study finding is contradicted with a study in India about head nurses' transformational leadership, collaboration and its relation to staff nurses' work engagement, which done by (Aldeeb and El-Demerdash 2016), who stated that over half of staff nurses had high levels of physical dimension of WE due to staff nurses have high levels of energy and readiness to develop one's work. Also, a study in USA about measuring work engagement in a multigenerational nursing workforce, that made by (Hisel ,2020) concluded that physical (vigor) character of WE had the highest mean score followed by emotional (deduction) and then cognitive (absorption) dimension.

### Conclusion

There was a significant positive intermediate correlation between staff nurses' total performance appraisal and their work engagement, where  $p = 0.000$  and  $r = 0.477$ .

### Recommendations

Based on the findings of the current study, the following recommendations are suggested:

#### A. The hospital administrators should:

- Develop a well-structured courses and educational programs regularly for nurses who had low level perception regarding performance appraisal system to raise their knowledge about it.
- Introduce formal orientation program related to performance appraisal system to

newly graduated nurses before starting their real work at hospital.

- Provide interpersonal communication that make a more flexible atmosphere in the hospital
- Encourage staff nurses to be creative and participate in performance appraisal

#### B. Head nurses should:

- Encourage nurses to share in performance appraisal system.
- should be objective during appraisal exercise .
- Provide rewards for nurses who contribute to participate in performance appraisal .
- Create an hospital culture and environment that supports nurses to participate in performance appraisal.
- Provide their direct reports with ongoing performance feedback. That's because feedback is a very important step within the performance appraisal process.

#### C. Nurses should:

- Regularity improves nurses' awareness about performance appraisal system and how it affects their commitment level.
- Communicate openly with their supervisors about any concern regarding their profession and performance appraisal system that could keep level of commitment high.
- participate in appraisal interviews at least once a week to talk about how they are performing on the job and to promote their empowerment and job satisfaction.

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