

## Effect of working Condition and Fatigue on Performance of Staff Nurses at Mansoura University Hospital.

Maysa Fekry Ahmed<sup>1</sup>, Wafaa Fathi Sleem<sup>2</sup>, Awatef Hassan Kassem<sup>3</sup>

<sup>1,2,3</sup>(Nursing Administration Department, Faculty Of Nursing, Mansoura University, Egypt)

**Background:** Staff nurses' working condition is changing dramatically and rapidly causing fundamental transformations that have an impact on staff nurses fatigue and performance. **Aim:** The study aimed to investigate the effect of working condition and fatigue on performance of staff nurses at Mansoura University Hospital. **Methods:** A descriptive co relational design was used and the study was conducted on 110 staff nurses working at all general medical and surgical units, using three tools: working condition questionnaire, occupational fatigue exhaustion recovery scale and observation checklist of nurses performance. **Results:** There were a statistically significant differences between working condition, fatigue, and performance among staff nurses ( $p=0.0001$ ). **Conclusion:** Staff nurses' performance was affected by degree of working condition and level of fatigue. So, there is a possibility of improving the performance of staff nurses and decreasing their fatigue through improving their working condition

**Keywords:** Working condition, Fatigue, Performance, Staff nurses

### I. Introduction

Today's, nurses face a variety of highly stressful working condition while meeting the physical and psychological needs of patients. The working condition is very important in any organization. So, hospitals should not be viewed only as medical organizations, but also as social organizations (Grebner, et al, 2005).

Working condition is shaped by the interaction of nurses with their organizational climate and it includes psychological as well as physical working condition (Bhaga, 2010). working condition is the condition under which a job is perform, and it different from that completely good and easy, to that very bad and dangerous to staff nurses' life and health (James, 2010).

Good working condition is a productive, rewarding, enjoyable, and healthy for managers, staff nurses and patients. It causes satisfaction in life in general, which is necessary for contentment, happiness and improve attendance (Warren, et al, 2007). Good working condition is not only beneficial for the nurse, but also increase the efficiency and productivity of the organization as a whole (Lizer, et al, 2009).

Bad working condition is a place where staff nurses unhappy, unrest, tardiness, and not able to provide quality care to the patients. It affects every aspect of our lives and ultimately it affects our ability to do our jobs. Staff nurses will have difficulty in meeting the needs of their patients, if their own needs are not meet. Therefore, hospital managers have responsibility towards both staff nurses and patients (Johnstone, 2002).

According to Beurskens, et al (2000) working condition was strongly associated with levels of fatigue. Fatigue can come directly from bad working condition. Nurses have many critical responsibilities in regard to patients, when these responsibilities are carried out in condition of limited resources whether in staffing or supplies and equipment, inflexibility in working hours and shifts, potential conflicts and bad relationships between staff, management and patients, and insufficient recovery time, all of these make nurses exposed to a variety of stressors resulting in relatively high level of fatigue.

Fatigue is defined as a state characterized by a lessened ability for work and reduced efficiency of accomplishment, usually accompany by a feeling of weariness and tiredness, and it is a protective reaction, universal complaint, and an indicator of an individual's response to physical and psychological demands (Dittner, et al, 2004).

A cute fatigue is a more impermanent situation which is commonly experienced by healthy people during the course of work or daily life activities. It occurs in response to work demands and/or stress that diminish available energy (Winwood, et al, 2006). Chronic fatigue is a common tiredness and lack of energy irrespective of whether an individual has not had adequate sleep or has been working hard, which persist even on rest days and holidays. It is a global mind – body sensation, that has a slow, insidious onset and a long duration that persists a month or more (Barker, 2009).

It is difficult to concern a broad based approach to fatigue management in the work place. There is require to take into account the character of the work performed, the skills and capacities required to perform the work,

the effects of fatigue on performance and the possible consequences of performance decrements (Roxanne, 2012)

Pasupathy & Barker (2012) declared that fatigue as a factor can lead to performance decreases in healthcare workers, particularly nurses. The effects of fatigue on performance are manifested in decreased alertness, attention, concentration, judgment, mood, and performance.

Improving the performance of nurses has been a topic of large interest and it is of high relevance for hospitals and nurses alike (Haddadi, et al, 2015). Performance is the extent to which nurses complete tasks, the way they utilize their available resources, and the time and energy they spend on their tasks (Rothmann & Coetzer, 2003). It is a multidimensional construct, and a dynamic concept that includes many factors affecting it (Neely, et al, 2005). Performance is about how effective nurses are in accomplishing their tasks and responsibilities related to patient care. It can provide information on which to base management decision regarding such as pay allocation, promotion, transfer, or layoffs. And it can also be used to provide feedback to nurses by identifying their strengths and weaknesses (Gruman & Saks, 2011).

Both working condition and fatigue are strongly associated with performance (Barker & Nussbaum, 2011). So, the aim of this study is to investigate effect of working condition and fatigue on staff nurses performance at Main Mansoura University hospital.

**Research aim :** The objective of this study was to investigate the effect of working condition and fatigue on performance of staff nurses at Main Mansoura University Hospital.

### Research questions:-

- 1: What is the level of staff nurses' working condition ?
- 2: What is the degree of staff nurses' fatigue ?
- 3: What is the level of staff nurses' performance ?
- 4: Is there a relation between working condition, fatigue and performance of staff nurses ?

## II. Material and Methods

**2.1 Design:** The design of this study was a descriptive correlational design

**2.2 Setting:** This study was conducted at all general medical and surgical units at Main Mansoura University Hospital. The study was carried out in four medical units (with bed capacity 80 beds) and 10 surgical units (with bed capacity 249 beds).

**2.3 Subjects:** The subjects of this study included all available staff nurses and consider convenience sample (110 staff nurse), which represent staff nurses responsible for providing nursing care to patients. Studied staff nurses included 65 staff nurses working in all general surgical units, and 45 staff nurses working in all general medical units with 95% confidence level and 5% confidence interval after reviewing the tools .

### 2.4 Tools of data collection:

Data for the present study was collected by using three main tools namely: Working Condition Questionnaire, Occupational Fatigue Exhaustion Recovery Scale and Observation Checklist of Nurses Performance.

**Tool 1 : Working Condition Questionnaire (WCQ),** consists of two parts

A-**The first part** was Personal characteristics of staff nurses as age, unit, educational qualifications, years of experience and marital status.

B-**The second part** of (WCQ), It was developed by (Chandler, 1986), based on Kanter's organizational behavioral theory (Sarmiento, et al, 2004 ). It was used to measure nurses' working condition, and it consists of 34 items categorized under 5 groups which are : Opportunities (10 items), supplies ( 4 items ), job activities (4 items ), information ( 8 items ), coaching and support ( 8 items ). Each statement response measured on five point likert scales ranged from 1 = never to 5 = always.

Scoring system (Chandler, 1986)

50% bad working condition

50 % - 75% moderate

75 % - 100% good working condition.

**Tool 2 : Occupational Fatigue Exhaustion Recovery Scale (OFERS):** It be developed by (Winwood, et al, 2005), and it was used to determine nurses fatigue, it included 15 items, divided into two groups, the first was

acute fatigue (7 items), and the second was chronic fatigue (8 items). Likert scales was modified according to opinion of expert during validity from 7 point likert scales that ranged from 1 = strongly disagree to 7 = strongly agree, to 4 point likert scales that ranged from 1 = strongly disagree to 4 = strongly agree, and accordingly, the scoring system was modified from:

Scoring system (Winwood, et al, 2005):

|                         |                         |
|-------------------------|-------------------------|
| 0 – 25 low fatigue,     | 15-25 low fatigue,      |
| 26 – 50 low / moderate, | 26- 36 low / moderate,  |
| 37- 47 moderate/ high,  | 51 – 75 moderate/ high, |
| 76 – 105 high.          | 48- 60 high.            |

**Tool 3 : Observation Checklist of Nurses Performance (OCNP):** It was developed by the researchers based on literature review ( Schwirian's, 1978., Abdrabou, 2002., & Ayyash & Aljeesh, 2011). It was used to assess performance of staff nurses. It included (71) items categories under 9 main dimensions which are: leadership (7 items), Psychosocial individual (14 items), communication (11 items), general patient care (13 items), vital signs (3 items), medication (7 items), patient status (5 items), planning and evaluation (4 items) and dressing (7 items). Observation checklist scored on the basis of yes, no and not applicable for each activity. "Yes" scored (one point), "no" scored (zero), and "not applicable" omitted from the calculation.

Scoring system (Ayyash & Aljeesh, 2011 ), was used:

50% poor performance  
50% - 65% moderate  
65% - 75% good  
75% - 85% very good  
85% - 100% excellent performance.

## 2.5 Methods

Ethical approval was obtained from the Research ethical Committee of Faculty of Nursing, Mansoura University, participation in the research was voluntary, and confidentiality of the collected data was maintained. Privacy of the study sample was assured, and the results were used as a component of necessary research, as well as for future publications and education.

The rationale of this study was explain to the administrative personnel, the written authorization was obtained from the faculty of nursing, Mansoura University to the hospital administrators, heads of surgical and medical units and the directors of nursing service department to carry out this study.

The tools were translated by the researchers into Arabic, and tested for its content validity and relevance by five experts in nursing administration from faculties of nursing, and accordingly the necessary modification was done. The reliability for the tools were done using cronbach's alpha test. It was (0.92) for occupational fatigue exhaustion recovery scale, (0.87) for observation checklist of nurses performance, and (0.83) for working condition questionnaire.

A pilot study was conduct on (11) of staff nurses from medical and surgical units that randomly selected. The actual field work started from May 2014 to September 2014. The questionnaire sheets of working condition and fatigue were distributed to respondents individually in their work settings, and the time needed to complete the sheets ranged from 25-30 minutes. As regard to the third tool (observation checklist) which used to assess staff nurses' performance, the researchers completes it by observing each staff nurse at different days in morning and afternoon shifts.

## 2.6 Statistical design:

The collected data were prepared tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 13, SPSS Inc. Chicago, IL, USA).

For quantitative data, the range, mean and standard deviation were calculated. For qualitative data, comparison between two groups and more was done using Chi-square test (2). For comparison between means of two groups of parametric data of independent samples, student t-test was used.

For similarity between means of two groups of non-parametric data of independent samples, Z value of Mann-Whitney test was used. relationship between variables was evaluated using Pearson's correlation coefficient (r). Significance was adopted at  $p < 0.05$  for explanation of results of tests of significance.

## 111.Results

**Table (1): Personal characteristics of studied subjects (n=110).**

| Variables                          | The study nurses<br>(n=110)        |      |                                     |      |                  |      | 2<br>P |
|------------------------------------|------------------------------------|------|-------------------------------------|------|------------------|------|--------|
|                                    | General medical<br>units<br>(n=45) |      | General<br>surgical units<br>(n=65) |      | Total<br>(n=110) |      |        |
|                                    | n                                  | %    | N                                   | %    | n                | %    |        |
| <b>*Marital status:</b>            |                                    |      |                                     |      |                  |      |        |
| Single                             | 12                                 | 26.7 | 7                                   | 10.8 | 19               | 17.3 | 4.703  |
| Married                            | 33                                 | 73.3 | 58                                  | 89.2 | 91               | 82.7 | 0.030* |
| <b>*Age (years):</b>               |                                    |      |                                     |      |                  |      |        |
| <26                                | 20                                 | 44.4 | 17                                  | 26.2 | 37               | 33.6 | 9.805  |
| 26-<36                             | 16                                 | 35.6 | 40                                  | 61.5 | 56               | 50.9 | 0.044* |
| ≥ 36                               | 9                                  | 20.0 | 8                                   | 12.3 | 17               | 15.5 |        |
| <b>*Educational qualification:</b> |                                    |      |                                     |      |                  |      |        |
| -Technical institute diploma       | 18                                 | 40.0 | 11                                  | 16.9 | 29               | 26.4 | 9.012  |
| -Nursing school diploma            | 27                                 | 60.0 | 54                                  | 83.1 | 81               | 73.6 | 0.029* |
| <b>*Experience years:</b>          |                                    |      |                                     |      |                  |      |        |
| <11                                | 30                                 | 66.7 | 31                                  | 47.6 | 61               | 55.4 | 8.360  |
| 11-<20                             | 11                                 | 24.4 | 28                                  | 43.1 | 39               | 35.4 | 0.079  |
| ≥ 20                               | 4                                  | 8.9  | 6                                   | 9.2  | 10               | 9.2  |        |

\*Significant (P < 0.05)

Table (1): Describes the personal characteristics of studied subjects. The majority of staff nurses are married (82.7%). Nearly half of them (50.9%) belonged to the age group from 26 until less than 36 years. Also (73.6%) of them had nursing school diploma degree, and more than half of them (55.4%) had experiences less than 11 years of experience. There were a statistically significant difference regarding staff nurses' marital status, age, and educational qualification (P= 0.030; 0.044; and 0.029) respectively.

**Table (2): Levels of working condition of studied subjects (n=110).**

| Working condition subgroups | Levels of working condition of the studied nurses<br>(n=110) |             |           |             |          |            |
|-----------------------------|--|-------------|-----------|-------------|----------|------------|
|                             | Bad  |             | Moderate  |             | Good     |            |
|                             | n  | %           | n         | %           | n        | %          |
| Opportunities               | 32   | 29.1        | 68        | 61.8        | 10       | 9.1        |
| Supplies                    | 54   | 49.1        | 49        | 44.5        | 7        | 6.4        |
| Job activities              | 34   | 30.9        | 61        | 55.5        | 15       | 13.6       |
| Information                 | 33   | 30.0        | 61        | 55.5        | 16       | 14.5       |
| Coaching & support          | 27   | 2.5         | 64        | 58.2        | 19       | 17.3       |
| <b>Total</b>                | <b>38</b>  | <b>34.5</b> | <b>65</b> | <b>59.1</b> | <b>7</b> | <b>6.4</b> |

Table (2): Shows the levels of working condition of studied subjects. Nearly two thirds (59.1%) of them showed moderate level of working condition. Opportunities were the highest percent of moderate level of working condition subgroups (61.8%), while the lowest percent presented in coaching & support in bad level (2.5%) .

**Table (3): Degrees of fatigue scores of studied subjects (n=110).**

| Fatigue items   | Degrees of fatigue scores among the studied nurses (n=110) |          |               |             |                |             |           |             |
|-----------------|--|----------|---------------|-------------|----------------|-------------|-----------|-------------|
|                 | Low  |          | Low/ moderate |             | Moderate/ high |             | High      |             |
|                 | N  | %        | N             | %           | n              | %           | n         | %           |
| Acute fatigue   | 1  | 0.9      | 19            | 17.3        | 28             | 25.5        | 62        | 56.4        |
| Chronic fatigue | 2  | 1.8      | 17            | 15.5        | 49             | 44.5        | 42        | 38.2        |
| <b>Total</b>    | <b>0</b>   | <b>0</b> | <b>14</b>     | <b>12.7</b> | <b>43</b>      | <b>39.1</b> | <b>53</b> | <b>48.2</b> |

Table (3): Determines the degrees of fatigue scores of the studied subjects. Nearly half of staff nurses had high level of total fatigue (48.2%). The highest percent of acute fatigue showed in high level (56.4%), while the highest percent of chronic fatigue showed in moderate/ high level (44.5%).

**Table (4): Levels of performance of studied subjects (n=110).**

| Nurses' performance items | Levels of performance of the studied nurses (n=110) |             |           |             |           |             |           |            |
|---------------------------|---|-------------|-----------|-------------|-----------|-------------|-----------|------------|
|                           | Poor  |             | Moderate  |             | Good      |             | Very good |            |
|                           | n   | %           | n         | %           | n         | %           | n         | %          |
| Leadership                | 92  | 83.7        | 4         | 3.6         | 14        | 12.7        | 0         | 0          |
| Psychosocial individual   | 26  | 23.6        | 76        | 69.1        | 8         | 7.3         | 0         | 0          |
| Communication             | 27  | 24.5        | 2         | 1.8         | 81        | 73.6        | 0         | 0          |
| General patient care      | 2   | 1.8         | 30        | 27.3        | 78        | 70.9        | 0         | 0          |
| Vital signs               | 28  | 25.5        | 5         | 4.5         | 77        | 70.0        | 0         | 0          |
| Medication                | 0   | 0           | 6         | 5.5         | 90        | 81.8        | 14        | 12.7       |
| Patient status            | 18  | 16.4        | 69        | 62.7        | 23        | 20.9        | 0         | 0          |
| Planning & evaluation     | 44  | 40.0        | 0         | 0           | 66        | 60.0        | 0         | 0          |
| Dressing                  | 32  | 29.1        | 4         | 3.6         | 61        | 55.4        | 13        | 11.8       |
| <b>Total</b>              | <b>15</b>   | <b>13.6</b> | <b>40</b> | <b>36.4</b> | <b>49</b> | <b>44.5</b> | <b>6</b>  | <b>5.5</b> |

**Table (4):** Describes the levels of performance of studied subjects. About half percent of staff nurses' performance presented in good level (44.5%). Leadership is the highest percent of poor level of performance (83.7%), while the lowest percent presented in general patient care in poor level, and communication in moderate level (1.8%).

**Figure(1): Correlation between scores of working condition and both fatigue and performance of studied subjects (n=110).**

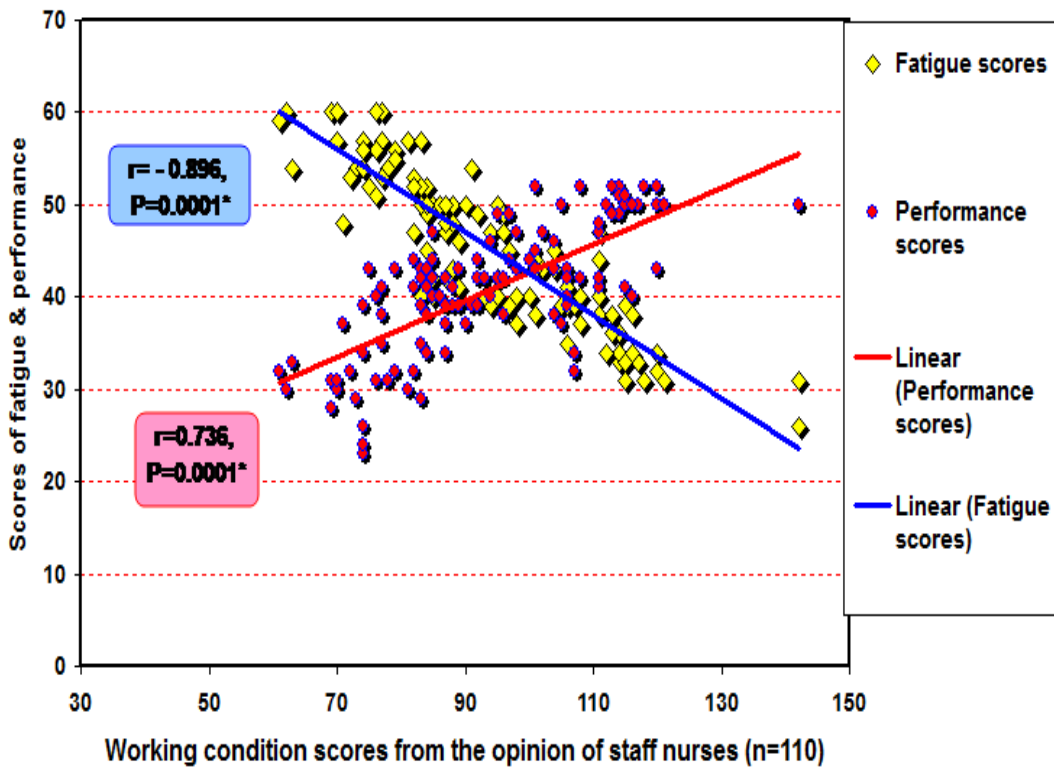


Figure (1): Shows that there was a strongly significant negative correlation between levels of working condition and degree of total fatigue, a strongly significant negative correlation between performance levels and degrees of total fatigue, and a strongly significant positive correlation between working condition and performance levels.

#### 1V. Discussion:

To carry out effectively, nurses must practice in a state that reinforces their professional role and autonomy, provides adequate resources, demonstrates consistent and high-quality managerial support and leadership, decreases stress and overload, and include nursing in institutional decision making (**Bakotic & Babic, 2013**).

Finding of the present study indicated that nearly two thirds of staff nurses showed moderate level of working condition. This may due to access to education and advancement, guidance and feedback and assistance when needed. This finding was consistent with **Trinkoff et al (2010)** who conduct a study on nurses working in American Center and found that working condition was in a moderate level.

This also was consistent with **Rotter et al (2014)** who conduct a study on nurses working at medical, surgical and psychiatric words in the West Pomerania Province and reported that more than half of them rated working condition as moderate. In agreement of the present study, **Kamati et al (2014)** conduct a study on nurses working at the referral and training hospital in Namibia and stated that the majority of nurses rated their working condition as a moderate level.

In the same line, **Lu et al (2007)** manner a study on nurses working in medical and surgical departments in two teaching hospitals in Mainland China and reported that more than half of nurses were satisfied with their working condition. On the contrast, **Shang et al (2013)** who conduct a study on nurses working at medical, surgical and oncology units and mentioned that nurses rated their working condition as bad.

Opportunities were the highest percent of moderate level of working condition subgroups. This was consistent with **Barden et al (2011)** who reported that nurses rated opportunities as the highest subscale. While, **Johnstone (2002)** mentioned that nurses opportunities for training and advancement were poor.

Concerning coaching & support, the finding of the present study indicated that it was in moderate level, and it was the second highest subgroup of working condition. This was agreed with **Barden et al (2011)** who found that nurses rated support as the second highest subscale. This was confirmed by **Hayes et al (2014)** who stated that nurses' support is one of the most important factors that improve working condition, decrease emotional exhaustion and motivate nurses to improve quality of care. On the contrast, **Hughes & Clancy (2005)** reported that nurses lack adequate support in their units.

The finding of the present study indicated that nearly half of staff nurses had high level of total fatigue. This may due to chronic shortages of staff nurses resulting in long working hours with sever acuity of patients and inadequate equipments and supplies. In agreement of the present study, **Rogers et al (2004)** mention that nurses crossways the world have report high level of fatigue, and have listed fatigue as one of the major factors causal to a decision to leave the profession. Accordingly, **Kara (2008)** conduct a study in the research hospital of Dicle University, Diyarbakir, Turkey and found that nearly two thirds of nurses had high level of total fatigue.

This was in the same line with **Batak et al (2013)** who do a study on nurses working in the clinical centre of Vojvodind, Serbia, and report that the total level of fatigue among nurses was at high level, confirmed that nurses during their work are excessively exposed to stressful situations. This also consistent with **Smith-Miller et al (2014)** who conduct a study on nurses working in acute care settings and stated that nurses experience high level of total fatigue. Also, **Han et al (2014)** conduct a study on nurses working in medical- surgical and critical care units in a large teaching hospital and mentioned that nurses had high level of total fatigue.

Regarding acute fatigue, the finding of the present study indicated that the highest percent of acute fatigue showed in high level. This was in the same line with **Chen et al (2014)** who reported that nurses experienced high level of acute fatigue. Also, **Han et al (2014)** mentioned that nurses had high level of acute fatigue.

Concerning chronic fatigue, the finding of the present study indicated that the highest percent of chronic fatigue presented in moderate/ high level. This finding was supported by **Sharma (2010)** who mentioned that chronic fatigue among nurses was in moderate/high level. In the same line, **Haddadi et al (2015)** found that chronic fatigue was moderate.

Finding of the present study indicated that about half percent of staff nurses' performance presented in good level. This may due to presence of training programs and continuous education, adequate supervision and support from their head nurses. In agreement of the present study, **Al-Makhaita et al (2014)** who perform a study on nurses who work at primary health care centers and secondary care level hospital at Eastern Saudi Arabia report that almost half of the studied staff nurses' performance was in good level. In the same line, **Qteat & Sayej (2014)** who conduct a study on nurses spread among five governmental and nongovernmental hospitals in Hebron and concluded that nurses performance was good.

This finding also, was supported by **Mohamed (2006)** who reported that the greatest percentage of nurses at Alexandria Main University Hospital valued dimensions of their performance as well performed in their units. In the same respect, **Al-Homayan et al (2013)** conduct a study on nurses in public sector hospitals in Saudi Arabia and stated that nurses performance was moderate. While, this finding contradicted with **Sleem & El-Sayed (2011)** who reported that staff nurses working in surgical units at Mansoura University Hospital had inadequate performance. That might be related to shortage of staff nurses numbers and lack of coworkers increase workload on staff nurses and decrease productivity of them.

Leadership had the lowest performance dimensions score. This finding was consistent with **Yuxiu et al (2011)** who mentioned that leadership was the lowest score. While, this finding contradicted with Al-Makhaita et al (2014) who reported that there was advancement in leadership.

Regarding communication, the present finding indicated good performance in this dimension. In agreement of the present study, **Jahanbin et al (2012)** stated that communication was the highest score in nurses performance. On the contrast, **Ahmed (2007)** concluded that communication among nurses was poor.

Concerning general patient care, the present finding indicated good performance in this dimension. This finding was congruent with **Hussien (2002)** who rated better performance score in relation to general patient care. While, this finding contradicted with **Abdrabou (2002)** who reported that nurses didn't meet patient physical needs as expected from them and there is role confusion that nurses carry out tasks and leave other shouldn't be carried.

Finding of the present study indicated that there was a highly significant negative correlation between performance levels and degrees of fatigue, which is indicated by increasing performance level correlating with decreasing fatigue degree. This result agrees with that found by **Barker & Nussbaum (2011)** who found that fatigue levels were negatively correlated with nurses performance. confirming that fatigue had consequences that affect nurses' performance as it diminish memory, slow reaction time, increase irritability, compromise problem solving and critical thinking, and decrease concentration and judgment. Accordingly, **Pasupathy & Barker (2012)** stated that there was a negative correlation between levels of fatigue and performance, confirmed that as fatigue levels increase, performance levels continue to decrease.

This finding also supported by **Dorrian et al (2006)** who stated that prevalence of fatigue among nurses was a significant predictor of the occurrence of errors in their work and impaired their performance. In the same line, **Haddadi et al (2015)** conduct a study on nurses working in different parts of Roozbeh psychotherapy center and found that there was a statistically significant negative correlation between nurses' fatigue and their overall performance, confirming that nurses with fatigue had lower job performance.

In harmony of the present study, **Sharma (2010)** perform a study on nurses in India and mentioned that nurses with fatigue were the deprived performer. confirm that fatigue had hazardous impact on the job performance in nurses. On the contrast, **Macdonald (2006)** stated that increasing fatigue doesn't necessarily result in deteriorating performance, since it is often possible for staff nurses to invest additional resources such as more effort or to agree a special strategies as lowering their target level of performance quality, to compensate for reducing performance capacities. Or staff nurses may resort to chemical stimulants in an attempt to sustain the abilities they need to maintain satisfactory work performance.

Finding of the present study indicated that there was a very significant negative correlation between levels of working condition and degrees of fatigue, which is indicated by increasing working condition level correlating with decreasing fatigue degree. This result agrees with that found by **Beurskens, et al, (2000)** who found that working condition was negatively associated with seeming levels of fatigue. Thus, by altering the working condition it may be possible to reduce fatigue level.

In the same line, **Batak et al (2013)** reported that two thirds of nurses estimated to have inadequate salary, shortage of nurses and needed resources, that expose nurses to excessively stressful situations and hard working condition that increase incidence of fatigue among them.

Finding of the present study indicate that there was a highly significant positive association between working condition and performance, which is indicated by increasing working condition level correlating with increasing performance level. This result agrees with that found by **Kahya (2007)** found that working condition was strongly correlated with performance. Bad working condition had both direct and indirect effects on nurses performance. Accordingly, **Bhaga (2010)** declared that there was a positive correlation between nurses' performance and their working condition, confirming that improvement in nurses' performance require improvement in working condition.

## V .Conclusion

Staff nurses' performance was affected by degree of working condition and level of fatigue. So, there is a possibility of improving the performance of staff nurses and decreasing their fatigue through improving their working condition.

## V1.Recommendations:

founded on the results of the study the follow recommendations are suggested:

1-Hospitals shouldn't be viewed only as medical organization but also as social organization. Thus, in addition to meeting the needs of the patients, the hospital must also develop a social condition in which staff nurses can satisfy their needs and desires while working together to serve the organization and the patient.

2-Efforts must be complete to resolve the problem of understaffing and provided that sufficient economic and needed resources within the work condition in order to retain qualified nurses, improve working condition and prevent fatigue in hospitals.

3-The administrative personnel should create policies intended to prevent nurses who provide direct patient care from working longer than 12 hours in a 24-hour period and more than 60 hours per seven-day period.

4-Nurse managers shouldn't schedule nurses for 12 hour shifts and nurses shouldn't request 12 hour shifts. Both staff nurses and nurse managers want to recognize the undesirable effects of overtime, whether it is mandatory or voluntary. As well as, provide flexibility of scheduling and availability of part time, and educate staff on personal responsibility to not work when too fatigued.

5--Regular evaluation of nursing staff performance, using a motivation action as rewarding good performance and giving them feedback.

6-The administrative personnel provide a periodic review to the job description of nursing staff to determine if it is reflect the reality of position, and make updates as necessary.

#### V11.References

- Abdrabou, F., (2002): Relationship between nurses' job satisfaction and quality of their performance, Master Degree, Faculty of Nursing, Ain Shams University.
- Ahmed, S.,(2007): Assessment of organizational performance in ICUs at Alexandria University Hospital. Unpublished Master Thesis. Faculty of Nursing, Alexandria University. Pp:68.
- Al-Homayan, A., M., Shamsudin, F.,M., Subramaniam,C., &Islam, R.,(2013): Impacts of job performance level on nurses in public sector hospitals. *American Journal of Applied Science*. 10(9)1115-1123.
- Al-Makhaita, H.,M., Sabra, A., A., & Hafez, A., (2014): Job performance among nurses working in two different health care levels, Eastern Saudi Arabia: a comparative study. *International Journal of Medical Science and Public Health*. 3 (7) 832-837.
- Ayyash, H., & Aljeesh, Y., (2011): Nurses' motivation and their performance at European Gaza Hospital in Gaza Strip, *Journal of Al Azhar University-Gaza (Natural Sciences)*, 13, Pp. 55 – 68.
- Bakotic, D., & Babic, T., (2013): Relationship between working conditions and job satisfaction: The case of creation shipbuilding company, *International Journal of Business and Social Science*, 4(2) 206-213.
- Barden,A., M.,Griffin, M.,T., Donabue, M., &Fitzpatrik, J.,J., (2011): Shared governance and empowerment in registered nurses working in a hospital setting. *Nursing Administration Quarterly*. 35(3) Pp. 212-218.
- Barker, L., M., & Nussbaum, M., A., ( 2011 ): Fatigue, performance and the work environment: a survey of registered nurses, *Journal of Advanced Nursing*, 67 (6), 1370 – 1382.
- Barker, L., M., (2009): Measuring and modeling the effect of fatigue on performance: specific application to the nursing profession, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, p8-12.
- Batak, T., Gvozdenovic, L., & Bokan, D., (2013): The impact of nurses' shift work on the fatigue level, *South Eastern Europe Health Sciences Journal*, 3 (2), 120 – 127.
- Beurskens, A., M., Bultmann, U., Kant, I., J., & Vercoulen,J., M.,(2000): Fatigue among working people: validity of a questionnaire measures, *Journal of Occupational Environment Medicine*, 57(1) 353-357.
- Bhaga, T., (2010): The impact of working condition on the productivity of nursing staff in the midwife obstetrical unit of Pretoria West hospital. Published Doctorate Thesis. Faculty of Humanities. University of Pretoria. Pp 85-87.
- Chandler, G., E., (1986): The relationship of nursing work condition to empowerment and powerlessness, Published Doctorate Thesis, College of nursing, University of Utah Graduate school, pp 49 - 56.
- Chen, J., Davis, K., G., & Daraiseh, N.,M.,(2014): Fatigue and recovery in 12 hour day shift hospital nurses. *Journal of Nursing Management*. 22(5) 593-603.
- Dittner, A., J., Wessely, S., C., &Brown, R., G., (2004): The assessment of fatigue: A practical guide for clinicians and researchers, *Journal of Psychosomatic Research*, 56(1) 157-170.
- Dorrian, J., Lamond, N., Heuvel,V.,C., Pincombe, J., Rogers, A., E., & Dawson, D., (2006): Pilot study of the safety implications of Australian nurses' sleep and work hours. *Chronobiology International*. 23(6) 1149-1163.
- Grebner, S., Semmer, N., K., & Elfering, A., (2005): Working conditions and three types of well-being: A longitudinal study with self- report and rating data, *Journal of Occupational Health Psychology*, 10 (1), 31-43.
- Gruman, J., A., & Saks, A., M., (2011): Performance management and employee engagement. *Human Resource Management Review*. 21(2) Pp.123-136.
- Haddadi,M., Zakerian, S.,A., Mahmoudi,M., Saraji,G.,N., Yekta, Z.,P., & Aliyari,A.,(2015): Chronic fatigue syndrome prevalence and its relation to job performance among nurses. *Universal Journal of Public Health*. 3(1) 1-5.
- Han, K., Trinkoff, A.,M., & Brown, J., G., (2014): Factors associated with work related fatigue and recovery in hospital nurses working 12 hour shift. *Workplace Health and Safety*. 62(10) 409-414.
- Hayes, B., Douglas, C., & Bonner, A., (2014): Predicting emotional exhaustion among haemodialysis nurses: a structural equation model using Kanter's structural empowerment theory. *Journal of Advanced Nursing*. 70 (12) 2897-2909.
- Hughes, R.,G., & Clancy, C., M., (2005): Working condition that support patient safety. *Journal of Nursing Care Quality*. 20(4) 289-292.
- Hussein, H., (2002): Assessing nurses' performance at intensive care units. Master Thesis. Faculty of Nursing . Ain Shams University. Pp: 110-115.
- Jahanbin, I., Badiyepynaa, Z., Sharif, F., Ghodsbin,F., & Keshavarzi (2012): The impact of teaching professional self concept on clinical performance perception in nursing students. *Life Science Journal*. 9 (4). 653-659.
- James, S., M., (2010): Working conditions at magnet hospitals, *American Journal of Nursing*, 110 (11) 16-17.
- Johnstone, M., J., (2002): Poor working condition and the capacity of nurses to provide moral care. *Contemporary Nurse*. 12(1) 7-15.
- Johnstone, M., J., (2002): Poor working conditions and the capacity of nurses to provide moral care, *Contemporary Nurse Journal*, 12(1) 7-15.
- Kahya, E., (2007): The effects of job characteristics and working condition on job performance. *International Journal of Industrial Ergonomics*.37. Pp. 515-523.



- Kamati, S., K., Cassim, N., & Korodia, A., M., (2014): An evaluation of the factors influencing the performance of registered nurses at the national referral hospital in Namibia. *Australian Journal of Business and Management Research*. 4(2) 47-62.
- Kara, I., H., (2008): Chronic fatigue syndrome among nurses and health care workers in a research hospital in Turkey. *Journal of Social Behavior and Personality*. 36(5) 585-590.
- Lizer, M., Manwell, L., B., Williams, E., S., Bobula, J., A., & Brown, R., L., (2009): Working condition in primary care: physician reactions and care quality. *Annals of Internal Medicine*. 151(1) 28-36.
- Lu, H., While, A., E., & Barriball, K., L., (2007): Job satisfaction and its related factors: A questionnaire survey of hospital nurses in Mainland China. *International Journal of Nursing Studies*. 44. 574-588.
- Macdonald, W., (2006): Work-related fatigue, summary of recent indicative research. *Australian Safety and Compensation Council*. 7-10.
- Mohamed, R., (2006): Relationship between nurses intra group conflict and their performance at Alexandria Main University hospital. Unpublished Master Thesis, Faculty of Nursing, Alexandria University. Pp:59-62.
- Neely, A., Gregory, M., & Platts, K., (2005): Performance measurement system design: a literature review and research agenda. *International Journal of Operations and Production Management*. 25(12) Pp. 1228- 1263.
- Pasupathy, K., S., & Barker, L., M., (2012): Impact of fatigue on performance in registered nurses: Data mining and implications for practice. *Journal for Healthcare Quality*. 34(5) Pp. 22-30.
- Qteat, M., & Sayej, S., (2014): Factors affecting time management and nurses' performance in Hebron Hospitals. *Journal of Education and Practice*. 5 (35) 41-59.
- Rogers, A., E., Hwang, W., T., & Scott, L., D., (2004): The effects of work breaks on staff nurse performance, *Journal of Nursing Administration*, 34(11) Pp.512-519.
- Rothmann, S., & Coetzer, E., P., (2003): The big five personality dimensions and job performance. *Journal of Industrial Psychology*. 29(1) Pp.68- 47.
- Rotter, L., Chmielewska, E., K., Lipa, P., Kotwas, A., & Jurczak, A., (2014): Assessment of psychosocial working condition of nurses at selected hospital wards. *Medycyna Pracy*. 65 (2) 173-179.
- Roxanne, N., (2012): Long work hours for nurses, *American Journal of Nursing*, 112(5) 19-20.
- Sarmiento, T., P., Laschinger, H., K., & Iwasiw, C., (2004): Testing Kanter's Theory, Issues and innovations in nursing educations, *Journal of Advanced Nursing*, 46 (2 ), 134 – 143.
- Schwirian's, P., M., (1978): Six Dimension Scale of Nursing Performance, Evaluating the performance of nurses, A multidimensional approach, *Nursing Research*, 27, 347 – 351.
- Shange, J., Friese, C., R., & Aiken, L., H., (2013): Nursing practice environment and outcomes for oncology nursing. *Cancer Nursing*. Wlters Kluwer Health. Lippincott Williams Wilkins. Pp.1-7.
- 45-Sharma, A., (2010): Job performance and chronic fatigue syndrome in nurses, *Asian social Science*, 6 (12), 167 - 171.
- Sleem, W., F., & El-sayed, N., M., (2011): The effect of job conscientiousness on job performance. *Nature and Science*. 9(1) 130-136. Retrieved at May, 9, 2015, from: [http:// www.sciencepub.net/nature](http://www.sciencepub.net/nature).
- Smith-Miller, C., A., Shaw-Kokot, J., Curro, B., & Jones, C., B., (2014): An integrative review: fatigue among nurses in acute care settings. *The Journal of nursing Administration*. 44(9) 487-494.
- Trinkoff, A., M., Johastgen, M., Store, C., L., Han, K., & Liang, Y., (2010): A comparison of working conditions among nurses in magnet and non magnet hospitals. *Journal of Nursing Administration*. 40(7/8), 309-315.
- Warren, N., Hodgson, M., Craig, T., Dyrenforth, S., Perlin, J., & Murphy, F., (2007): Employee working condition and health care system performance: the veterans health administration experience, *Journal of Occupational and Environmental Medicine*, 49(4) 417- 429.
- Winwood, P., Dawson, D., Lushington, K., & Winefield, A., (2005 ): Development and validation of a scale to measure work- related fatigue and recovery: The occupational fatigue exhaustion recovery scale, *Journal of Occupational and Environmental Medicine*, 47 (6), 594 – 603.
- Winwood, P., C., Winefield, A., H., & Lushington, K., (2006): Work related fatigue and recovery: The contribution of age, domestic responsibilities and shift work. *Journal of Advanced Nursing*. 56(4). 438-449.
- Yuxiu, P., Kunaviktikul, W., & Thungiaroenkul, P., (2011): Job characteristics and job performance among professional nurses in the University hospitals of People's Republic of China. *Journal of National Science*. 10(2)171-180.