Factors Affecting Performance of Nurses at Prince Sultan Military Medical City (PSMMC) Riyadh, Saudi Arabia

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Abstract: The aim of this study is to assess the factors affecting performance of nurses in Prince Sultan Military Medical City (PSMMC) Riyadh, Saudi Arabia. The objectives were to evaluate self-reported performance and determine whether differences in nurses demographics, organizational and environmental factors, affected performance that finally lead to the development of the necessary recommendations that may improve performance. A sample of 2863 nurses working in PSMMC was selected and questionnaires were sent to them. Statistical analysis included Pearson correlation, t-test and one-way Anova test. It was found that differences in certain demographic variables influenced the performance positively including; gender, experience and nationality. Education had no effect on performance. Work safety and work relationships had a positive correlation with performance, whereas materials and supplies availability had a negative impact on performance. There were some limitations in this research due to the fact that all measures used are based on self-reports. Future research may be directed to other objective measures of performance. According to this study, it is recommended that effective human resources strategies should be implied to improve commitment, recruitment and retention of qualified workers, to inaugurate high working performance and safe environmental and organizational culture.

Key words: Performance ⋅ Nurses ⋅ Organizational Factors ⋅ Health-Care ⋅ Professionals

INTRODUCTION

Health-care organizations depend highly on health professionals. Nurses are considered one of the most important elements in these organizations that provide high quality, efficient services, added to the indispensable availability of skilled and competent health professionals [1]. Training of nurses according to set standards is essentially required as long as there is a shortage of personnel all over the world, is one of the main obstacles that is facing health care managers [2]. It is essential to keep nurses on their jobs, motivated and skilled to provide effective and high quality of care to patients [1, 3].

Definitions of the word "theory" by Burns and Grove [4] and modeling of motivation by Bennett and Franco [5] were postulated for factors that influence levels of performance of workers in the health field. Other studies were found in the literature that agreed with Bennett and Franco [5] findings whilst, Zurn *et al*. [6] also identified

some factors playing important roles in performance of health workers. Sharpley [7], suggested that individual experience of work outcomes or achievements were important for work motivation and performance. Zahargier [8] and Fort and Voltero [9] suggested factors that are closely related and affected performance, which include clear goals and job expectations. Rafferty *et al*. [10] and Griffith *et al*. [11] showed that the effect of environmental and organizational factors could be either negative or positive on performance of health workers. Environmental factors include political pressure and health-care reforms, financial pressure, decentralization of health-care systems, client/user pressure and quality assurance and changes in health professional education. Few studies were found that specifically dealt with factors affecting the nurses' performance. A specific study from Saudi Arabia on nurse's performance was done by Al-Ahmadi [12] which, aimed at identifying factors influencing performance of hospital nurses in Riyadh Region, Saudi Arabia. Specific objectives were to estimate self-reported performance and

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determine whether differences in employee demographics, job satisfaction and organizational commitment, influenced performance.

Mrayyan [13] comparatively, studied job satisfaction and retention with respect to Jordanian nurses in public and private hospitals, in addition to another study [14] on nurses' job satisfaction, patients' satisfaction and quality of nursing care in a Jordanian educational hospital. It was found out that nurses were 'neither satisfied nor dissatisfied' in their jobs, nurses who work in wards reported a slightly better job satisfaction than nurses who work in critical care units whilst, patients were 'moderately' satisfied. AbuAlrub [15] investigated the effect of job related stress on job performance and the effect of social support from co-workers on the stress-performance of hospital nurses in Jordan. He found that perceived social support from co-workers enhanced job performance and decreased the level of reported job stress. AbuRuz [16] did a comparative study about the impact of stress on job satisfaction between Jordanian and Saudi nurses and found out that stress negatively affected health care providers, but this was more enhanced in case of nurses, due to the changing nature of the profession. Stress, resulting from internal and external sources indicate that it decreases job satisfaction in nursing, resulting in numerous undesirable consequences. Haag-Heitman [17] examined nurse experts' perceptions of personal and environmental influences on their attainment of expert performance finding out that organizational incentives, such as financial support, satisfied them as employees but were not pivotal to their expert development and better using sponsored learning activities to enhance learning and their practice development. Mitchell [18] who explored the relationship between demographic and work environment factors among foreign-trained nurses living and working in Saudi Arabia and found that when the work environment was improved, job satisfaction would increase, burnout may decrease and tenure may improve whilst the leaders in all sectors have to be empowered to effect change in the professional nursing work environment. Similar studies were done by Krugman [19] described a 5-year study at a western university teaching hospital. and Sammad [20] presented the findings of the organizational relationship commitment and job satisfaction with job performance.

The majority of previous studies were carried out in Western contexts and there is a growing concern over whether Western business practices and management theories are appropriate for non-Western settings.

This study is concerned with finding out the factors that affect the performances of nurses that were neither specifically nor intensively investigated, due to lack of enough studies in literature. Whilst, several studies were found on factors affecting performance of employees in general, specific ones identifying factors influencing performance of hospital nurses in Riyadh armed forces hospital are demanding, to determine whether differences in nurses demographic, environmental and organizational factors, do influence performance, specifically reflecting working conditions, organizational support, quality of work and managerial support.

MATERIALS AND METHODS

Research Design: The design used in this study is a non-experimental quantitative descriptive and exploratory survey method.

This non-experimental survey method is an approach whereby a group of nurses is investigated. This descriptive study measures the rates, led by the problem statements which guided and directed the exploration of the subject areas, especially where there is a gap in the knowledge to problem statements that articulate the nature, context and significance of the study problem.

Population and Sampling: The target population for this study constituted nurses in Riyadh PSMMC which, included 2863 nurses. A random sample was not possible in this study due to administration obstacles that did not allow the researcher to get a list of all 2863 nurses in PSMMC. Therefore a convenient sample was collected by distributing 400 questionnaires to all different wards through the head of nursing department.

Sampling Design: Of the two types of sampling, the non-probability or non-random selection of subjects was chosen. Of the four types of samples (convenient, snowball, quota and purposive or judgmental) and due to administrative obstacles that did not provide a list of nurses, a convenient sample was collected by distributing 400 questionnaires to all different wards through the head of nursing department.

Instrumentation: Data collection (gathering information for this research purposes) was done through an appropriate instruments, a structured self-administered questionnaire (a collection of questions based on the subject of interest to be completed by respondents).

Table 1: Criterion for the scales

		Weight	Mean
Strongly disagree	Very poor	1	1 to <1.80
Disagree	Poor	2	1.80 to < 2.60
Uncertain	Average	3	2.60 to < 3.40
Agree	Good	4	3.40 to 4.20
Strongly agree	Very good	5	4.20 to 5.00

It consisted of three sections (Table 1). Section A, included demographic information items, section B included 12 items in regard to self-reported performance and section C consisted of 26 items reflecting dimensions of environmental and organizational factors.

The questionnaire was used in this study because it was the simplest and least expensive method of obtaining information from large numbers of subjects. Though, the disadvantage is that questionnaires depend on personal reporting and therefore may be biased or inaccurate.

Questionnaire Design: After completion of the literature review, the questionnaire was developed for the study. The general aim of questionnaire was to identify perceptions of nurses on factors that affect their performance. The design of the structured questionnaire was guided by the objectives and the literature review.

Section A: Asked the respondent for personal data with regard to age, gender nursing qualification, years being registered nurse and nationality.

Section B: Required participants to grade their performance based on response alternatives of very poor, poor, average, good and very good.

Section C: Questions 1 to 26 required participants to indicate their agreement with stated items based on Likert-scale (strongly disagree, disagree, uncertain, agree and strongly agree), with the significance levels:.

** Significant at level 0.01   * significant at level 0.05

The item-total correlation coefficients of the scale items were statistically significant at the same previous levels, indicating an internal consistency between the items in each scale and the total items included and reliability of the tool scale was confirmed by using the Table of Cronbach's Alpha coefficients (0.771 and 0.930) for the scales (Performance appraisal and Environmental and organizational factors) respectively, which are values that were statically accepted.

Data Collection: 400 questionnaires were distributed on 12 Jan 2010 through the head of nursing department. 219 were received, with a response rate is 54.5%. 201 were considered complete and 7 questionnaires were excluded from the study and considered incomplete.

Data Analysis: Of the 400 questionnaires distributed, 219 were returned by the respondents. 18 were excluded from the study as respondents responded wrongly to question number 13. The final valid questionnaires were 201 questionnaires. The data gathered were coded and entered into the computer through the statistical package (Version SPSS 17). To achieve the study objectives, the researcher used frequencies, percentages, means and standard deviations for the participants' responses and the results was represented by tables and figures.

Criterion for the Scales: The items on all scales were given an equal weights according to Likert scale of the five degrees as follows: the highest grade given 5 degrees, the lowest grade given one degree, the degrees sorted in descending order (1,2,3,4,5). The range was calculated for the scale where the range = 5-1= 4, by dividing the range by number of categories (5) resulted 4/5= 0.80 which the length of each category of the five scales, then the length of the category is added to the lowest grade of the scale which is the number (1). So the first category is produced to be (1- <1.80). by adding the length of the highest limit for the category to produce the second category. So on for the rest of the categories and so we get the following criterion for purposes of analyzing the results:

So we can specify the agreeing degree to any item through computing the arithmetic mean as follow:

If the mean value range between 4.20 -5.00 represent (Strongly agree)

If the mean value range between   3.40 - < 4.20 represent (Agree)

If the mean value range between   2.61 – 3.40 represent (Uncertain)

If the mean value range between 1.80 – <2.60 represent (Disagree,

If the mean value range between 1.00 – <1.80 represent (Strongly disagree)

According to the objectives and questions of the study the following statistical procedures were used:

- Frequencies and percentages for description of study sample characteristic and to define their responses towards the scale's items included in the study tool.
- Cronbach's alpha for reliability of the tool
- Mean and standard deviation to specify the study sample responses towards the items of the scales and for ranking the items in the point of view of the sample.
- T - test for difference in variables with two levels
- Analysis of Variance (ANOVA) for the significant differences in the study sample response towards the scales according to demographic data with more than two levels.
- LSD test in case if differences occur.
- Person correlation for factors correlation with performance.

RESULTS

Demographic Information: Personal characteristics of the respondents were provided from Section A in the questionnaire, as shown in Table 2.

It showed the age frequency distribution of respondents indicated that 76 (37.8%) of the nurses aged 30 years or lower, 70 (34.8%) lies in the age group 31 to 40 years, while 55 (27.4%) of them aged 41 years or more. Thus almost more than three quarters of the registered nurses 146 (72.6%) were between the ages of 31 and 40 years.

With respect to gender, it exposed that the nurse population is dominantly female as 156 (77.6%) registered nurse respondents and 45 (22.4%) are male.

Qualifications in nurses reflected that nearly more than half of registered nurses 127 (63.2%) had the BSc of nursing or midwifery as their highest qualification, 51 (25.4%) had a diploma in nursing or midwifery, 17 (8.5%) holding postgraduate/ diploma in nursing or midwifery, while 6 (3.0%) having master's degree.

Nurses length of time they spent as registered nurses indicated their experience at work. The results revealed that less than half of the nurses 91 (45.3%) exceeded 10 years of experience, 58 (28.9%) had 5 to 10 years of experience, while 52 (25.9%) had 5 years or less of experience.

Table 2: Frequency distribution of the study sample according to age, gender, qualification, experience and nationality

Age group	No	Percent
30 years or lower	76	37.8
31- 40 years	70	34.8
41 years or over	55	27.4
Total	201	100.0
Gender	No	Percent
Female	156	77.6
Male	45	22.4
Total	201	100.0
Qualification	No	Percent
Diploma in nursing or midwifery.	51	25.4
BSc nursing or midwifery.	127	63.2
Postgraduate/ diploma in nursing or midwifery	17	8.5
Master's degree	6	3.0
Total	201	100.0
Experience (years of being a registered)	No	Percent
5 years or less	52	25.9
5 - 10 years	58	28.9
More than 10 years	91	45.3
Total	201	100.0
Nationality	No	Percent
Saudi	19	9.5
Non-Saudi	182	90.5
Total	201	100.0

Table 3: Nurses responses on items related to appraisal performance

Statements		Very poor No	%	Poor No	%	Average No	%	Good No	%	Very good No	%	Mean	SD	Rank
1	Attendance and punctuality	6	3.0	2	1.0	10	5.0	55	27.4	128	63.7	4.48	0.88	1
2	Improving your personal skills	1	.5	4	2.0	11	5.5	101	50.2	84	41.8	4.31	0.71	5
3	Relationship with patients	1	.5	2	1.0	12	6.0	86	42.8	100	49.8	4.40	0.69	3
4	Relationship with superiors	1	.5	3	1.5	15	7.5	87	43.3	95	47.3	4.35	0.73	4
5	Relationship with colleagues	1	.5	2	1.0	6	3.0	90	44.8	102	50.7	4.44	0.65	2
6	Improving work methods	-	-	4	2.0	15	7.5	105	52.2	77	38.3	4.27	0.68	8
7	Quality of work	1	.5	3	1.5	16	8.0	100	49.8	81	40.3	4.28	0.72	7
8	Your overall performance as compared to your coworkers	-	-	5	2.5	22	10.9	101	50.2	73	36.3	4.20	0.73	1
9	Clinical competencies	-	-	3	1.5	23	11.4	105	52.2	70	34.8	4.20	0.70	10
10	Planning of nursing care	-	-	5	2.5	17	8.5	106	52.7	73	36.3	4.23	0.71	9
11	Assessment of patient.	2	1.0	1	.5	14	7.0	101	50.2	83	41.3	4.30	0.71	6
	Total mean											4.32	0.55	

Table 4: Nurses responses on items related to environmental and organizational factors

Statements	Strongly disagree No	%	Disagree No	%	Uncertain No	%	Agree No	%	Strongly agree No	%	Mean	SD	Rank
1 My work environment is not safe and free from hazards.	11	5.5	39	19.4	32	15.9	103	51.2	16	8.0	3.37	1.06	20
2 There is Good workplace layout.	3	1.5	33	16.4	46	22.9	100	49.8	19	9.5	3.49	0.93	13
3 Comfortable temperature.	8	4.0	28	13.9	44	21.9	109	54.2	12	6.0	3.44	0.94	17
4 Necessary instruments are available.	11	5.5	39	19.4	48	23.9	88	43.8	15	7.5	3.28	1.04	22
5 Overtime work is acceptable	2	1.0	27	13.4	44	21.9	100	49.8	28	13.9	3.62	0.92	10
6 Materials and supplies are sufficient	19	9.5	69	34.3	43	21.4	62	30.8	13	6.5	2.93	1.12	25
7 Antiseptic hand solution for protection of staff and patients are available.	4	2.0	17	8.5	29	14.4	116	57.7	35	17.4	3.80	0.89	4
8 Infection control strategy guidelines available.	1	0.5	14	7.0	36	17.9	115	57.2	35	17.4	3.84	0.81	3
9 Opportunities exist for a flexible work schedule	1	0.5	13	6.5	56	27.9	109	54.2	22	10.9	3.69	0.77	6
10 The work environment is pleasant, attractive and comfortable	10	5.0	23	11.4	49	24.4	98	48.8	21	10.4	3.48	1.00	14
11 Care and support of staff in the form of counseling at the workplace is available	0	0.0	26	12.9	45	22.4	114	56.7	16	8.0	3.60	0.81	11
12 Praise and recognition is available	8	4.0	27	13.4	53	26.4	96	47.8	17	8.5	3.43	0.96	18
13 Good relationships with other departments Such as housekeeping and dietary.	1	0.5	8	4.0	28	13.9	132	65.7	32	15.9	3.93	0.71	2
14 Not being placed in a position of having to do things that are against my nursing judgment	2	1.0	15	7.5	53	26.4	118	58.7	13	6.5	3.62	0.76	8
15 Please tick box number 3	3	1.5	11	5.5	149	74.1	35	17.4	3	1.5	3.12	0.58	24
16 Opportunities for advancement exist	7	3.5	12	6.0	74	36.8	97	48.3	1	0.5	3.46	0.83	15
17 The administration listens and responds to employee concerns	12	6.0	23	11.4	71	35.3	87	43.3	8	4.0	3.28	0.93	21
18 Staff nurses have the opportunity to serve on Hospital and nursing committees.	4	2.0	12	6.0	55	27.4	116	57.7	14	7.0	3.62	0.79	9
19 Opportunity to work on a highly specialized unit	5	2.5	18	9.0	47	23.4	106	52.7	25	12.4	3.64	0.90	7
20 There are clear Standardized policies, procedures and ways to do things of doing	1	0.5	9	4.5	29	14.4	123	61.2	39	19.4	3.95	0.75	1
21 Supervisors use mistakes as learning opportunities, not criticism	8	4.0	18	9.0	46	22.9	114	56.7	15	7.5	3.55	0.90	12
22 Enough staff to get the work done	12	6.0	43	21.4	54	26.9	83	41.3	9	4.5	3.17	1.01	23
23 The chief nursing officer equal in power and authority to other top-level hospital executives	11	5.5	20	10.0	64	31.8	90	44.8	16	8.0	3.40	0.96	19
24 Enough time and opportunity to discuss with other nurses	4	2.0	25	12.4	62	30.8	94	46.8	16	8.0	3.46	0.88	16
25 Active TQM program exist	2	1.0	17	8.5	46	22.9	110	54.7	26	12.9	3.70	0.84	5
Total mean											3.53	0.44	

Table 5: One-Way ANOVA showing the differences of performance level according to age group, means and standard deviations and multiple comparisons (LSD)

Performance					
Source	DF	Mean Square	F		Sig.
Between Groups	2	5.816	23.227		0.000**
Within Groups	198	0.250			
Total	200				
Means and standard deviations					
Age group	N	Mean	SD		
1	30 years or lower	76	4.065		0.545
2	31-40years	70	4.309		0.528
3	41years or over	55	4.669		0.383
Multiple comparisons (LSD)					
Age groups	Mean Difference	Sig.			
1	31-40years	30 years or lower	0.24		0.004**
2	41years or over	30 years or lower	0.60		0.000**
		31-40years	0.36		0.000**

Nurses nationality revealed that most of the registered nurses, 182 (90.5%) were non-Saudi, while 19 (9.5%) were Saudi.

Results Related to the Nurses Response Towards Their Performance: Table 3 showed the statements of (**appraisal performance**) which were sorted as descending according to the mean, the results showed that the statement which is saying (**attendance and punctuality**) comes at first class with average (4.48 from 5), while the statement that is saying (**Your overall performance as compared to your coworkers**) comes at the end class with average (4.20 from 5). As a whole all of aspects related to appraisal performance lies in the range of very good performance according likert scale and the overall performance is (4.32) which indicate a very good performance.

Table 4 shows the statements of (**environmental and organizational factors**) which were sorted descending according to the mean, the results showed that the statement that is saying (**There are clear Standardized policies, procedures and ways to do things of doing**) comes at first class with average (3.95 from 5) which represent agree, while the statement that is saying (**Materials and supplies are sufficient**) comes at the end class with average (2.93 from 5) which stand for "uncertain". As a whole all nurses "agreed" to the aspects of environmental and organizational factors (mean =3.53 which stand for "agree")

Relation Between Age Group and Performance or Differences in Performance Level Based on Age: One way analysis of variance (ANOVA) was conducted to test the differences in performance level based on age, the following results were obtained in Table 5.

The results revealed that there is a significant difference on nurses responses according to age groups with regard to performance level, where (F) value reached (23.227) and it was statistically significant at level 0.01. When Post-Hoc Multiple comparison LSD (Least significant difference) were conducted, showing the differences between:

- Nurses aged 31 to 40 years and (30 years or lower), the difference trend is in favor of (nurses aged 31 to 40 years) due to the highest mean (4.309).
- Nurses aged 41 year and more and (30 years or lower, 31 to 40 years) on the hand, the difference trend is in favor of older ones due to the highest mean (4.669).

Relation Between Gender and Performance or Differences in Performance Level Based on Gender: Independent samples t- test were done to see the differences in performance according to gender as shown in Table 6.

This table revealed that there was a significant difference in performance level between male and female nurses, where the (*t*) value reached (5.179) at the significance level of 0.01,

Relation Between Nurses Qualifications And Performance Or Differences In Performance Level Based On Qualifications: One way analysis of variance (ANOVA) was conducted to test the differences in performance level based on qualifications, as shown in Table 7.

Table 6: Independent samples t- test to know the differences in performance according to gender

Performance	N	Mean	SD	T-value	Sig.
Female	156	4.417	0.475	5.179	0.000**
Male	45	3.961	0.655		

Table 7: One-Way ANOVA showing the differences of performance level according to qualifications with means and standard deviations

Performance				
Source	DF	Mean	F	Sig.
Between Groups	3	5.816	2.353	0.073
Within Groups	197	0.250		
Total	200			
Means and standard deviations				
Qualifications	N		Mean	SD
1	Diploma in nursing or midwifery.	51	4.237	0.545
2	BSc nursing or midwifery.	127	4.361	0.517
3	Postgraduate/ diploma in nursing or midwifery	17	4.090	0.782
4	Master's degree	6	4.651	0.351

Table 8: One-Way ANOVA showing the differences of performance level according to years of experience with means and standard deviations and multiple comparisons (LSD)

Performance				
Source	DF	Mean	F Sig.	
Between Groups	2	05.475	21.568	0.000**
Within Groups	198	0.254		
Total	200			
Means and standard deviations				
Years of experience	N	Mean	SD	
1	5 years or less	52	4.049	0.562
2	5 - 10 years	58	4.158	0.523
3	More than 10 years	91	4.568	0.452
Multiple comparisons (LSD)				
Years of experience	Mean Difference	Sig.		
1	More than 10 years	5 years or less	0.519	0.000**
		5 - 10 years	0.410	0.000**

Table 9: Independent samples t- test to know the differences in performance according to nationality

Performance	N	Mean	SD	T-value	Sig.
Saudi	19	3.928	0.629	-2.859	0.000**
Non-Saudi	182	4.356	0.530		

Table 10: Pearson correlation: between factors and overall performance

	Performance
My work environment is not safe and free from hazards.	-.210-**
There is Good workplace layout.	-.077-
Comfortable temperature.	-.020-
Necessary instruments are available.	-.052-
Overtime work is acceptable	0.112
Materials and supplies are sufficient	-.233-**
Antiseptic hand solution for protection of staff and patients are available.	-.037-
Infection control strategy guidelines available.	0.091
Opportunities exist for a flexible work schedule	0.027
The work environment is pleasant, attractive and comfortable	-0.077-
Care and support of staff in the form of counseling at the workplace is available	-0.026-
Praise and recognition is available	-0.023-
Good relationships with other departments Such as housekeeping and dietary.	0.236**
Not being placed in a position of having to do things that are against my nursing	0.024
Opportunities for advancement exist	0.073
The administration listens and responds to employee concerns	-0.115-
Staff nurses have the opportunity to serve on Hospital and nursing committees.	-0.054-
Opportunity to work on a highly specialized unit	0.053
There are clear Standardized policies, procedures and ways to do things	0.090
Supervisors use mistakes as learning	-0.016-
Enough staff to get the work done	-0.008-
The chief nursing officer equal in power and authority to other top-level hospital executives	-0.041-
Enough time and opportunity to discuss	0.000
Active TQM program exist	0.063

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

The results revealed that there was no significant difference on nurse responses according to their qualifications with regard to performance level, where (F) value reached (2.353) and it was not statistically significant (P>0.05).

Relation Between Years Of Being Registered Nurses And Performance Or Differences In Performance Level Based On Experience: One way analysis of variance (ANOVA) was conducted to test the differences in performance level based on years of being a registered nurse, as shown in Table 8.

The results revealed that there was a significant difference on nurses responses according to years of being a registered nurse, with regard to performance level, where (F) value reached (21.568) and it was statistically significant at level 0.01. When Post-Hoc Multiple comparison LSD (Least significant difference) was conducted, showing the differences between:

- Nurses with more than 10 years as registered nurses and (5 years or less, 5 to 10 years) on the other hand, the difference trend is in favor of (nurse with more than 10 years as registered nurses) due to the highest mean (4.568)

Relation Between Nationality and Performance or Differences in Performance Level Based on Nationality: Independent samples t- test to see the differences in performance according to nationality as shown in Table 9.

The results revealed that there is a significant difference in performance level between Saudi and Non-Saudi nurses, where the (*t*) value reached (-2.859) at significant level 0.01, the difference trend is in favor of non-Saudi nurses due to the highest mean (Non-Saudi = 4.356).

Relation Between the Environmental Factors and Performance: Pearson correlation coefficients were produced to test the relation between environmental and organizational factors and overall performance:

The results revealed that there is negative statistical relation between (My work environment is not safe and free from hazards), this means that the more my work is safe the more my performance will be. Another correlation was found between (Materials and supplies are sufficient) and performance where the correlation coefficient reached (-0.233) at significant level 0.01 which is negative and reverse which means that when materials and supplies are sufficient lead to low performance.

The results also revealed that there is no statistical relation between all the organizational factors and performance, except the relation revealed with the following statement is of (good relationships with other departments such as housekeeping and dietary) and performance, the results revealed that there is positive statistical relation between (good relationships with other departments such as housekeeping and dietary) and performance at significant level 0.01 where the correlation coefficient reached (0.236) which is positive and direct which means that when there is a good relationships with other departments such as housekeeping and dietary lead to high performance.

Summary of Results: Findings of the study revealed that (37.8%) of the nurses aged 30 years or lower, (77.6%) were females, (63.2%) reported having the BSc of nursing or midwifery as their highest certificate, while (3.0%) having master's degree, less than half of the nurses (45.3%) exceeded 10 years of experience, most of the registered nurses (90.5%) are non-Saudi. In regard to the performance level results show an overall performance of very good (4.32). 'Attendance and punctuality' came first in grading with 4.48 whereas nurses 'performance compared to co-workers' was the least in the list with 4.20. In regard to the agreement to the stated environmental and organizational factors, results showed that the overall response was in agreement with "agreed" to the statements with an average of (3.53 out of 5.0). The statement (There are clear Standardized policies, procedures and ways to do things) "came with the best agreement with average mean of (3.95 out of 5.0) ", in the meantime, responses to the statement (Materials and supplies are sufficient) came with the least agreement with the average mean (2.93 out of 5.0) which means "uncertain".

Significant differences emerged within the study sample.

- With regards to gender differences,, the difference trend is in favor of males nurses.
- Levels of performance were significantly increased in older (nurses aged 31 to 40 years and nurses aged 41 year and more) (P<0.01).
- There is no significant difference on nurses responses according to their qualifications.
- With regards to years of being a registered nurse, differences trend is in favor of nurses with long years as registered nurses.

- There is a significant difference in performance level between Saudi and Non-Saudi nurses, in favor of non-Saudi nurses.
- There is a negative statistical correlation between the statement of (My work environment is not safe and free from hazards) and performance (-0.233) (P<0.05).
- There is a negative statistical relation between (materials and supplies are sufficient) and performance (-0.233) (P<0.05).
- There is no statistical correlation between all the organizational factors and performance, except the factor of good relationships with other departments such as housekeeping and dietary (0.236) P<0.05.

There is no significant correlation between (environmental factors as a whole, organizational factors as a whole, environmental and organizational factors together) and performance, where the correlation coefficients were (-0.10.7, -0.040, -0.073) respectively.

DISCUSSION

Factors that affected nurse's performance in PSMMC reflected some aspects that emerged from the study, including ranges of the demographic variables, environmental and organizational factors. Female staff represented most of the sample with a high percentage and this is consistent with previous research and the real world where female's nurses constituted most of the nursing population all over the world [21]. With regard to performance there has been significant differences in level of performance in favor of males. This finding is consistent with other research such as the study of Fitzroy [22] who studied the influence of gender on nurses ability, with male nurses more readily gaining respect. They found out that men, delivering high standards of care and compassion, often attracted greater recognition for their efforts, as they were seen to be acting against gender type. Performance was also increased with a significant difference on nurse's responses according to age groups with regard to performance level. The results showed that levels of performance were significantly increased in older group. This result is consistent with earlier studies, that years of experience were found to be strong predictors of job performance, indicating that work experience influences performance [23-25].

With regard to qualification and education, there were no significant differences on nurse performance responses.

With regard to nationality there is a significant difference in performance level between Saudi and Non-Saudi nurses, in favor of non-Saudi nurses. This result is contrary with previous research, nationality was found to be a strong predictor of job performance, indicating that national culture has a strong impact on work attitudes [23-25].

Nurses' responses agreed in overall to the existence of all stated environmental and organizational factors, however uncertainty was identified with one factor which is related to materials and supplies sufficiency. Worth mentioning here, that more than two thirds of the respondents actually disagreed to this statement. This reflects nurse's un-satisfaction with supplies and equipment availability in the hospital. Another moderate agreement was seen with (administration listens and responds to employee concerns) with also average response. This is an indication of the leadership style used in the nursing department and in the hospital as a whole. Previous studies have reported similar moderate responses, such as the one by Al-Homayan *et al.* [29] who found that nurses in public hospitals in the Kingdom of Saudi Arabia demonstrated moderate levels of job performance.

Results of this study show that (work environment is not safe and free from hazards) the safety of work environment is negatively correlated with nurses performance, indicating that the higher the level of work safety, the higher job performance of nurses. This is consistent to findings by prior researchers that working conditions have a positive influence on job performance [30]. Another finding was in regard to the availability of materials and supplies where it showed negative correlation with nurse's performance, indicating that the less available materials and supplies, the higher the job performance of nurses and this had been reported before [31]. This is contrary to findings by prior researchers that availability of materials and supplies has a positive influence on job performance [30]. We may attempt to explain this negative relationship between availability of materials and supplies and nurses performance due to the fact that shortage of supplies reduce the workload and pressure on nurses, hence will be reflected on their performance level. This is just a speculation that needs further research to investigate causes of the negative correlation between availability of materials and level of performance.

Finally Results of this study show that the good relationships with other departments such as

housekeeping and dietary has a positive correlation with nurses performance. This is consistent with other research [12, 15, 32] where it was found that performance is influenced by relationships at work, including patient appreciation of nurses, cooperation among staff, as well as physicians' respect towards nurses.

This study results can be used by health organizations who seek improvement of their nursing. It is important to know that nurses performance improvement depends on proper human resources management. When recruiting the work force, managers should take in account all personnel characteristics that proved to be positively correlated to performance such as years of experience and other environmental and organizational factors. Organizations need to focus on factors that contribute to job performance.

The study results can be implied in health organizations who look forward to improve their nurse performance. It should be noted by health organizations managers that performance can be increased by elements other than usual management functions (planning, organizing, control), it can be increased also by improving human resources aspects such as recruitment and focusing on motivation and relationships among different departments. Hospital management should also be committed to improve work environment safety. Health organizations need to focus on factors that contribute to better working conditions and organizational commitment of nurses as they constitute the largest group of professionals in directing the hospital. Creating a positive organizational culture and better work environment would eventually enhance motivation and performance. Making sure that enough staff is available not only will enhance the performance but also will benefit the quality of care of patients. Although the results of this study is important and add essential input into the literature, health managers should note that there are some limitations to this research because all the measures used here were based on self-reports, which might have the problem of common method variance and social desirability effects. However these limitations should be taken in consideration in future research.

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