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Impacts of Job Performance Level on Nurses in Public Sector Hospitals

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ABSTRACT

Job performance refers to how effective employees are in accomplishing their tasks and responsibilities related to direct patient care. Improving the performance of employees has been a topic of great interest to practitioners as well as researchers. The aim of the study is to analysis the impacts of job performance level on nurses' performance working in public hospitals. In order to achieve the study objective, a survey conducted. Questionnaires distributed to the public sector hospital's manager in Saudi Arabia. The findings of the study turn out to be true; the study will contribute to both theory and practice. Through the present study, the researcher expects the findings to shed light on the research conducted regression to analysis the impacts of job performance level on nurses' in public sector hospitals in Saudi Arabia.

Keywords: Job Performance, Nurse, Public Hospital, Interacting Effect

1. INTRODUCTION

Improving the performance of employeesa has been a topic of great interest to practitioners as well as researchers (Madsen *et al.*, 2005). But what is job performance and how it is measured so that it reflects the individual's contribution, effort and motivation into the job has been a topic of great debate amongst scholars. Indeed, there is no consensus concerning the definition of the term, job performance, among experts.

Campbell *et al.* (1970). address eight factors affecting job performance in all occupations: (1) task specific behaviour, (2) non-task specific behaviour, (3) commusnication, (4) effort, (5) personal discipline, (6) assistance to and from colleagues, (7) supervision and leadership and (8) management. Borman and Motowildo (1997) refer task specific behaviour to the activities defined by an employee's job specification and thus vary among employees with different job designations and different roles. On a contrary, non-task specific factors refer to the activities that may be carried out by

employees in various roles while at work such as the training of new employees (Campbell et al., 1970). Meanwhile, communication covers all the written and oral methods of transferring information. Besides, an employee's job performance is gauged on the content delivered (Borman and Motowildo, 1997). The effort of an employee in the course of assessing job performance may be looked at on a day to day basis or when the employee is in special circumstances and is a measure of an employee's commitment to his or her work (Campbell et al., 1970). In terms of personal discipline of an employee, it is the history and habits of the employee with certain circumstances (Shuriquie et al., 2008). In jobs where group work is required, the extent to which an employee is ready, available and actually helps out his team and his colleagues when needed is used in the assessment of his job performance (Borman and Motowildo, 1997).

In the context of nursing, job performance refers to how effective employees are in accomplishing their tasks and responsibilities related to direct patient care

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(AbuAlRub, 2004). Greenslade and Jimmieson (2007) asserted that despite the importance of effective nursing performance, only some measurements were constructed for the measurement of nurses' performance. This is compounded by the fact that the developed measurements have limitations which reduces their utility value and validation. Scales such as the six-D scale (Schwirian, 1978) and the Slater Nursing Competencies Rating scale (Wandelt and Phaneuf, 1972) created in the 1960s and 1970s (Redfern and Norman, 1990) have been found to have weaknesses and limitations. It is argued that they concentrate on a limited portion of task-specific behaviours that nurses perform within their jobs such as providing care and interpersonal support to patients (Bell and Menguc, 2002). As a result, Greenslade and Jimmieson (2007) developed a wellvalidated scale to measure job performance, based on an established job performance model. Their scale consists of 41 behaviours with eight dimensions of job performance. These include (1) task performance of dimensions: consisting four provision informational, coordination of care, provision of support and technical care, (2) contextual performance consisting of four dimensions: interpersonal support, job-task support, compliance and volunteering for additional duties. Indeed, Bakker et al. (2005) noted that nurses demonstrated nursing performance in both in-role (task) and extra-role (contextual) behaviours.

2. MATERIALS AND METHODS

2.1. Research Design

Research design spells out how the research is carried out toward the accomplishment of research objectives and answering of questions. In other word, research design constitutes the outline for the collection, measurement and analysis data (Cooper and Schindler, 2013). Zikmund *et al.* (2012) defined research design as a master plan that outlines the methods and procedures for collecting and analyzing data. Moreover, research design helps the researcher in the allocation of inadequate resources by posing vital choices in methodology (Cooper and Schindler, 2013).

The main research design employed in the present research was survey. Survey is defined as a measurement process that utilises a measurement tool called a questionnaire, measurement instrument, or interview schedule (Cooper and Schindler, 2013). Surveys attempt to describe what is happening or to study the reasons for

an exacting business activity (Zikmund *et al.*, 2012). The questionnaire is the most common information collection tool in business research (Cooper and Schindler, 2013). The questionnaire is the most extensively used information collection technique in a survey study (De Vaus, 2013). Questionnaire is an organized set of questions or measures used by respondents or interviewers to record answers data (Hair *et al.*, 2010).

2.2. Population

Population is defined by Cooper and Schindler (2013) as those people, events, or records that contain the desired information and can answer the measurement questions. As the present study is interested to investigate nurses' experience at work with regards to how they would respond to various stimuli at work and how such response will affect their job performance, the study naturally focused on nurses. In this study, the general population consists of nurses who are working in public hospitals administered under the umbrella of the Ministry of Health of Saudi Arabia. The nursing sector under the Ministry of Health makes up 57.10% of the total number of nurses in the Kingdom of Saudi Arabia. As of 2009, there were 44,719 nurses working in public hospitals in the Kingdom (MOH, 2010). **Table 1** shows the distribution of nurses employed in public hospitals in all regions in the Kingdom of Saudi Arabia.

Only nurses working in public hospitals in the Kingdom of Saudi Arabia and not those working in private hospitals were considered because the majority of nurses work in public hospitals (MOH, 2010). In addition, as of 2010, 60% of nursing care services is provided by the nurses in public hospitals while the remaining 40% is provided by nurses in private sector and other governmental sector (Al-Malki et al., 2011; MOH, 2010). Furthermore, the private sector contributes only 20% in providing health care services especially in cities and large towns (Al-Malki et al., 2011; MOH, 2010). This means that the nurses in public hospitals in Saudi Arabia are working under high job stress and job demands, especially in high populated areas. Indeed as reported by Tyson and Pongruengphant (2004), nurses working in public hospitals generally indicated to experience more stress than those in private hospitals. In the present study, nurses that were considered in the population were those employed as staff nurses in public hospitals. Only these groups of nurses were taken into consideration in the present study as they make up the bulk of nurses.



Table 1. Total number of nurses in ministry of health hospitals, in 2009

		Nurses	
	No. of		
Regi	public hospitals	Number	%
Riyadh	44	8,652	19.35
Makkah	35	9,974	22.30
Medinah	20	3,579	08.00
Qaseem	17	2,557	05.72
Eastern	33	6,253	13.98
Aseer	23	3,180	07.11
Tabouk	11	1,528	03.42
Ha'il	9	1,443	03.23
Northern	7	1,136	02.54
Jazan	16	2,234	04.99
Najran	9	1,367	03.06
Al-Bahah	10	1,238	02.77
Al-Jouf	10	1,578	03.53
Total	244	44,719	100.00

Source: Ministry of Health Saudi, 2009

2.3. Sample Size

According to Cooper and Schindler (2013), sampling is the process whereby some elements from the population are selected to represent the whole population. Sample size is the number of units that is required to get accurate findings (Fink, 2003). For the purpose of this study, the sample size was 380, based on Krejcie and Morgan (1970) formula, for a population size of 44,719 nurses. As mentioned before, in a multivariate analysis, the sample size should be several times larger than the number of variables. Because there are 19 variables in the present study, the required sample size should be at least 190 or more and hence 380 subjects are deemed an appropriate size.

2.4. Data Collection

According to Sekaran (2003), there are many methods that can be possibly used to collect data from respondents such as interviews and questionnaires. Interviews involve unstructured and structured approach. Interviews can differ from being highly unstructured to highly structured. Unstructured interviews are usually conducted by an extremely flexible approach. A questionnaire, on the other hand, is a pre-written set of questions that respondents are required to answer, which is generally within close defined alternatives (Sekaran, 2003). A questionnaire is an efficient data collection mechanism but only

when the researcher is aware of what is required and the measures of the variables involved (Sekaran, 2003). In the present study, questionnaires were used because the researcher was interested in getting specific responses on the issues at hand i.e., job demands and resources, job stress, organizational support and job performance via specific measurements.

2.5. Pilot Study

A pilot study can be described as a small-scale project that culls data from respondents that are similar to the target respondents of the study (Zikmund et al., 2012). It normally serves as a guide to the researcher for his/her actual larger study or to examine the ambiguous aspects of the research to find out whether the procedures will work as intended. In other words, pilot studies are important because they refine survey questions and reduce flaws in the study (Zikmund et al., 2012). Furthermore, the pilot study's importance lies in the fact that it improves the questionnaires (Neuman, 1997). Normally, the size of the pilot study ranges from 25-100 subjects (Cooper and Schindler, 2013). Table 2 shows the Cronbach's alpha values of the variables used in pilot study. As shown, the alpha values ranged from 0.735 to 0.964. These values were higher than the threshold value of 0.70, indicating that the instruments used to measure the main variables were reliable.



Table 2. Result of Cronbach's alphas of the main variables in pilot study

Number of Items	Variables	Alpha
5	Quantitative Demands (QD)	0.745
8	Physical Demands (PD)	0.899
4	Emotional Demands (ED)	0.735
2	Shift Work (SW)	0.846
4	Skill Variety (SV)	0.801
3	Task Significance (TS)	0.828
3	Task Identity (TI)	0.828
3	Feedback (FB)	0.773
6	Job Security (JSec)	0.882
14	Job Stress (JS)	0.964
8	Organizational Support (OS)	0.806
23	Nurses' Task Performance (NTP)	0.943
18	Nurses' Contextual Performance (NCP)	0.922

3. RESULTS

3.1. Factor Analysis

Factor analysis was performed on all items that measured the independent variables (job demands and resources), mediating variable (job stress), moderating variable (organizational support) and dependent variables (nurses' task and contextual performance). Factor analysis is an established tool that helps determine the construct adequacy of a measuring device (Cooper and Schindler, 2013). Factor analysis was conducted on the data collected from 632 nurses.

3.2. Factor Analysis for Nurses' Performance Construct

Nurses' performance construct dimensions were measured using 41 averaged items. A principle component factor analysis using varimax rotation was then conducted on the 41 items to determine which items should group to form what dimensions. The criteria developed by Igbaria *et al.* (1995) was used for cross loading, that is, a given item should load 0.50 or higher on a specific factor and have a loading no higher than .35 on other factors. Two items were deleted after applying this criterion. The Kaiser-Meyer-Olkin criterion was applied to extract the number of factors with only an eigenvalues equal or greater than one can be extracted (Kaiser, 1960). The result of factor analysis demonstrated eight factors with an eigenvalue of more than 1. The results are presenteed in **Table 3**.

The output in **Table 3** shows that the Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) for the

eight dimensions solution was 0.95, with a significant Bartlett's Test of Sphericity (Sig = 0.000). This indicates that the data were suitable for factor analysis (Coakes *et al.*, 2009). Hair *et al.* (2010) also stress that in social science research it is common to consider a solution that accounts for 60% or, in some instances, even less, of the total variance as satisfactory. In the present study, factor loading in the components met the criteria by Igbaria *et al.* (1995), that is, a given item should load 0.50 or higher on a specific factor and have a loading no higher than .35 on other factors.

3.3. Reliability Analysis

The paper discusses the results of reliability. Reliability analysis was performed on the 19 dimensions extracted (i.e., quantitative demands, physical demands, emotional demands, shift work, skill variety, task significance, task identity, feedback, job security, job stress, organizational support, provision of information, coordination of care, provision of support, technical care, interpersonal support, job-task support, compliance and volunteering for additional duties). Cronbach's alpha coefficient was computed for each variable and presented in **Table 4**.

The results of the reliability of the measurement in this study appeared acceptable. Internal consistency of the scales ranged from 0.77 (emotional demands) to .98 (job stress), which suggest the specified indicators were sufficient for use (Hair *et al.*, 2010). The result suggests that the variables were appropriate for further analysis.



Table 3. Summary of Factor Analysis for Nurses' Performance Construct (N = 632)

Tactor 1: Provision of information	Table 3. Summary of Factor Analysis for Nurses' Performance	Components							
Factor 1: Provision of information (Nurses' task performance) 1. Explaining to patients what to expect when they leave the hospital 2. Providing instructions for care at home 0.733 0.090 0.185 0.189 0.097 0.156 0.120 0.119	Items	1	2.	3	4	 5	6	 7	8
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2. Providing instructions for care at home. 3. Explaining to familities what to do if the patient's problems or symptoms continue, get worse, or return. 4. Explaining to patients when they can resume nomal activities, such as going to work or driving a car. 5. Providing appropriate information to 0.789 0.142 0.187 0.100 0.193 0.091 0.101 0.053 nativities, such as going to work or driving a car. 6. Communicating to patients when they can resume nomal activities, such as going to work or driving a car. 7. Providing appropriate information to 0.057 0.101 0.102 0.104 0.107 0.091 0.091 0.005		0.641	0.208	0.127	0.169	0.148	0.203	0.053	0.157
3. Explaining to families what to do if the patient's problems or symptoms continue, get worse, or return. 4. Explaining to patients when they can resume normal activities, such as going to work or driving a control of the standard of the patient of the patien	when they leave the hospital.								
Problems or symptoms continue, get worse, or return		0.733	0.090	0.185	0.189	0.097	0.156	0.120	0.119
4. Explaining to patients when they can resume normal activities, such as going to work or driving a characteristics, such as going to work or driving a characteristics, such as going to work or driving a characteristic such as going to work or driving a characteristic such as going to work or driving a characteristic such as going to work or driving a characteristic such as going to work or driving and a characteristic such as going to work or driving and a characteristic such as going to work or driving and a characteristic such as going to work or driving and the purpose of nursing procedures. 6. Communicating to patients the purpose of contextual performance or side-effects of nursing procedure. 7. Informing patients of the possible of nursing procedure. 8. Factor 2: Job-fask support (Nurses' contextual performance) 1. Making special arrangements for the patient. 8. O.121		0.789	0.123	0.200	0.135	0.069	0.121	0.057	0.157
Activities, such as going to work or driving a car.		0.500	0.1.10	0.100	0.101	0.100	0.055	0.042	0.005
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Families about nursing procedures performed.		0.720	0.204	0.107	0.100	0.102	0.001	0.110	0.052
6. Communicating to patients the purpose of nursing procedures. 7. Informing patients of the possible side-effects of nursing procedures. 7. Informing patients of the possible side-effects of nursing procedure. 8. Factor 2: Jobb-task support (Nurses' contextual performance) 1. Making special arrangements for the patient. 2. Staying late to help families. 3. Taking extra time to respond to a family's needs. 4. Making special arrangements for the patient. 5. Taking extra time to respond to a family's needs. 6. Taking extra time to respond to a family sneeds. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 6. Taking extra time to respond to a patient's needs. 7. Taking patient observations 7. Taking patient observations 8. O.142 8. O.000		0.730	0.204	0.187	0.100	0.193	0.091	0.110	0.033
Of nursing procedures Company		0.697	0.116	0.192	0.141	0.274	0.190	0.112	0.067
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Factor 2: Job-task support (Nurses' contextual performance) I. Making special arrangements 0.121 0.653 0.035 0.209 0.244 0.120 0.070 0.122 0.123 0.124 0.124 0.125		0.657	0.101	0.012	0.152	0.250	0.325	0.063	0.092
Factor 2: Job-task support (Nurses' contextual performance) J. Making special arrangements J.									
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1. Taking patient observations 0.162 -0.014 0.654 0.257 0.173 0.257 0.112 0.118		0.142	0.614	0.206	0.202	0.075	0.020	0.181	0.164
(e.g., blood pressure, pulse, temperature). 2. Assisting patients with activities of daily living (e.g., showering, toileting and feeding). 3. Developing a plan of nursing care for patients. (a.228 0.006 0.791 0.219 0.094 0.181 0.073 0.145 (b.228 0.006 0.006 0.006 0.006 0.008 0.0080 0.0080 (b.228 0.008 0.0091 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.228 0.009 0.0091 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.229 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.230 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 0.009 0.009 (b.240 0.009 0.009 (b.24		0.162	0.014	0.654	0.057	0.172	0.057	0.112	0.110
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3. Developing a plan of nursing care for patients. 4. Administering medications and treatments. 5. Evaluating the effectiveness of nursing care. 6. 0.21 0.228 0.006 0.791 0.219 0.094 0.181 0.073 0.145 6. Evaluating the effectiveness of nursing care. 6. 0.231 0.133 0.744 0.193 0.146 0.121 0.080 0.162 6. Factor 4: Interpersonal support (Nurses' contextual performance) 1. Raising morale of other nurses in the unit. 2. Helping nurses in the unit to resolve work problems. 3. Consulting amongst each other when actions 6. 0.154 0.206 0.254 0.705 0.106 0.163 0.130 0.072 6. Might affect other nurses in the unit. 4. Taking time to meet unit nurses' emotional needs. 6. Volunteering to share special 6. Helping nurses in the unit to catch up on their work. 6. Helping nurses in the unit to catch up on their work. 7. Exactor 5: Provision of support (Nurses' task performance) 1. Showing care and concern to families. 7. Listening to patients' concerns. 8. 0.232 0.286 0.073 0.153 0.169 0.687 0.230 0.106 0.113 8. Taking time to meet families' emotional needs. 8. 0.257 0.126 0.313 0.169 0.687 0.230 0.106 0.113 8. Taking time to meet families' emotional needs. 9. 0.257 0.126 0.313 0.169 0.687 0.230 0.106 0.113 9. 0.258 0.259 0.126 0.313 0.169 0.611 0.230 0.108 0.168 9. 0.259 0.165 0.150 0.245 0.177 9. 0.064 0.115 9. 0.251 0.120 0.246 0.314 0.625 0.172 0.064 0.115 9. 0.251 0.120 0.251 0.120 0.251 0.150 0.251		0.122	0.203	0.739	0.038	0.233	0.080	0.091	0.044
4. Administering medications and treatments. 5. Evaluating the effectiveness of nursing care. 6. 0.231		0.201	0.205	0.708	0.135	0.221	0.197	0.070	0.136
5. Evaluating the effectiveness of nursing care. Factor 4: Interpersonal support (Nurses' contextual performance) 1. Raising morale of other nurses in the unit. 2. Helping nurses in the unit to resolve work problems. 3. Consulting amongst each other when actions 3. Consulting amongst each other when actions 4. Taking time to meet unit nurses' emotional needs. 5. Volunteering to share special 6. Helping nurses in the unit to catch up on their work. 6. Helping nurses in the unit to catch up on their work. 7. Showing care and concern to families. 7. Showing care and concern to families. 7. Listening to patients' concerns. 7. Taking time to meet families' emotional needs. 8. Consulting and the unit of the unit to catch up on their work. 9. Consulting and the unit to catch up on their work. 9. Consulting to share special 9. Consul									
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Nurses' contextual performance 1. Raising morale of other nurses in the unit. 0.271 0.189 0.091 0.660 0.162 0.156 0.123 0.204 2. Helping nurses in the unit to resolve work problems. 0.228 0.117 0.232 0.703 0.119 0.239 0.153 0.161 3. Consulting amongst each other when actions 0.154 0.206 0.254 0.705 0.106 0.163 0.130 0.072 0.0084 0.0084 0.006 0.254 0.705 0.106 0.163 0.130 0.072 0.0084 0.244 0.000 0.106 0.084 0.0084		0.231	0.155	0.7	0.175	0.1.0	0.121	0.000	0.102
1. Raising morale of other nurses in the unit. 2. Helping nurses in the unit to resolve work problems. 3. Consulting amongst each other when actions 3. Consulting amongst each other when actions 4. Taking time to meet unit nurses' emotional needs. 5. Volunteering to share special 4. Helping nurses in the unit to catch up on their work. 4. Helping nurses in the unit to catch up on their work. 4. Taking time to meet unit nurses' task performance) 1. Showing care and concern to families. 2. Listening to families' concerns. 3. Taking time to meet families' emotional needs. 4. Listening to patients' concerns. 5. Taking time to meet the emotional needs of patients. 6. Helping nurses in the unit to catch up on their work. 7. Provision of support (Nurses' task performance) 8. Consulting amongst each other when actions of the unit to catch up on their work. 8. Consulting amongst each other when actions of the unit to catch up on their work. 9. Consulting to the unit to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit to catch up on their work. 9. Consulting to the unit the									
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3. Consulting amongst each other when actions might affect other nurses in the unit. 4. Taking time to meet unit nurses' emotional needs. 5. Volunteering to share special 6. Helping nurses in the unit to catch up on their work. 7. Eactor 5: Provision of support (Nurses' task performance) 1. Showing care and concern to families. 2. Listening to meet families' concerns. 3. Taking time to meet families' emotional needs. 4. Listening to patients' concerns. 5. Taking time to meet the emotional needs of patients. 6. Taking time to meet the emotional needs of patients. 6. Listening to nurses in the unit to catch up on their work. 6. O.251 6. O.251 6. O.252 6. O.253 6. O.246 6. O.314 6. O.255 6. O.170 6. O.166 6. O.178 6. O.223 6. O.246 6. O.314 6. O.255 6. O.172 6. O.664 6. O.173 6. O.230 6. O.166 6. O.173 6. O.230 6. O.160 6. O.174 6. O.231 6. O.251 6. O.252 6. O.275 7. O.264 7. O.265 7. O.170 7. O.166 7. O.170 7.		0.228	0.117	0.232	0.703	0.119	0.239	0.153	0.161
4. Taking time to meet unit nurses' emotional needs. 5. Volunteering to share special 6. Helping nurses in the unit to catch up on their work. 6. Helping nurses in the unit to catch up on their work. 7. Provision of support (Nurses' task performance) 7. Showing care and concern to families. 7. Listening to families' concerns. 7. Taking time to meet families' emotional needs. 7. Taking time to meet families' concerns. 7. Taking time to meet the emotional needs of patients. 7. Taking time to meet the emotional needs of patients. 7. Taking time to meet the emotional needs of patients. 8. Taking time to meet the emotional needs of patients. 9. Taking time to meet the emotional needs. 9. Taking time to meet the emotional needs. 9. Taking time to meet the emotional needs. 9. Taking time to meet the occasional		0.154	0.206	0.254	0.705	0.106	0.163	0.130	0.072
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Factor 5: Provision of support (Nurses' task performance) 1. Showing care and concern to families. 2. Listening to families' concerns. 3. Taking time to meet families' emotional needs. 4. Listening to patients' concerns. 5. Taking time to meet the emotional needs of patients. 5. Taking time to meet the emotional needs of patients. 6. Coordination of care (Nurses' task performance) 1. Explaining to nurses in the unit the 6. 0.314 6.025 6.0.172 6.0.625 6.0.172 6.0.687 6.0.230 6.169 6.151 6.0.93 6.169 6.110 6.110 6.230 6.161 6.230 6.162 6.179 6.653 6.149 6.047 6.177									
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2. Listening to families' concerns. 0.275 0.117 0.231 0.169 0.687 0.230 0.106 0.113 3. Taking time to meet families' emotional needs. 0.232 0.286 0.073 0.153 0.758 0.093 0.112 0.098 4. Listening to patients' concerns. 0.257 0.126 0.313 0.169 0.611 0.230 0.108 0.168 5. Taking time to meet the emotional needs of patients. 0.160 0.181 0.316 0.179 0.653 0.149 0.047 0.177 Factor 6: Coordination of care (Nurses' task performance) 1. Explaining to nurses in the unit the nature of the patient's condition. 0.314 0.087 0.081 0.126 0.123 0.732 0.087 0.026		0.251	0.120	0.246	0.214	0.625	0.172	0.064	0.115
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Factor 6: Coordination of care (Nurses' task performance) 1. Explaining to nurses in the unit the 0.314 0.087 0.081 0.126 0.123 0.732 0.087 0.026 nature of the patient's condition.									
1. Explaining to nurses in the unit the 0.314 0.087 0.081 0.126 0.123 0.732 0.087 0.026 nature of the patient's condition.		0.100	0.101	0.510	0.177	0.033	0.14)	0.047	0.177
nature of the patient's condition.		0.314	0.087	0.081	0.126	0.123	0.732	0.087	0.026
		0.514	0.007	0.001	0.120	0.123	0.732	0.007	0.020
2. Reporting the critical elements of patients' 0.147 0.067 0.241 0.199 0.105 0.774 0.125 0.027		0.147	0.067	0.241	0.199	0.105	0.774	0.125	0.027
situations when turning over work shifts.					*****		****	******	***-
3. Ensuring all members of the nursing unit are familiar 0.191 0.099 0.174 0.073 0.198 0.769 0.088 0.099		0.191	0.099	0.174	0.073	0.198	0.769	0.088	0.099
with the patient's recent medical history.									
5. Informing all nurses in the unit about patient 0.203 -0.082 0.294 0.215 0.196 0.619 0.152 0.070		0.203	-0.082	0.294	0.215	0.196	0.619	0.152	0.070
tests and their results.									
Factor 7: Compliance (Nurses' contextual performance)	Factor 7: Compliance (Nurses' contextual performance)								
1. Complying with hospital rules, regulations and 0.048 0.096 0.172 0.208 0.056 0.140 0.772 0.096	1. Complying with hospital rules, regulations and	0.048	0.096	0.172	0.208	0.056	0.140	0.772	0.096
procedures, even when no one is watching.	procedures, even when no one is watching.								



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Table 5. Continue									
2. Representing the hospital favorably to	0.109	0.256	0.008	0.147	0.099	0.104	0.795	0.124	_
individuals outside the hospital.									
3. Making sure that materials and equipment are not wasted.	0.187	0.132	0.119	0.168	0.121	0.119	0.744	0.165	
Factor 8: Volunteering for additional duties									
(Nurses' contextual performance)									
Volunteering to participate on committees	0.176	0.230	0.138	0.190	0.122	0.044	0.144	0.752	
within the hospital that are not compulsory.									
2. Attending and participating in	0.198	0.212	0.181	0.192	0.193	0.091	0.166	0.736	
meetings regarding the hospital.									
3. Making innovative suggestions to improve	0.168	0.128	0.188	0.245	0.150	0.067	0.135	0.771	
the overall quality of the department.									
Eigenvalues	15.04	2.850	2.130	1.710	1.470	1.32	1.190	1.020	
Percentage of Variance Explained = 68.50%	12.35	9.820	9.630	9.250	7.960	7.51	6.000	5.980	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.95	_							
Bartlett's Test of Sphericity Approx. Chi-Square	15531.1	.8							
Df	741								
Sig.	0.000								

Table 4. Cronbach's alphas of the study variables after factor analysis (n = 632)

No. of items	Variables	Alpha	Items dropped after factor analysis
5	Quantitative Demands (QD)	0.88	-
8	Physical Demands (PD)	0.90	-
4	Emotional Demands (ED)	0.77	-
2	Shift Work (SW)	0.89	-
4	Skill Variety (SV)	0.78	-
3	Task Significance (TS)	0.82	-
3	Task Identity (TI)	0.78	-
3	Feedback (FB)	0.82	-
6	Job Security (JSec)	0.95	-
14	Job Stress (JS)	0.98	-
8	Organizational Support (OS)	0.89	-
7	Provision of Information (PI)	0.91	-
4	Coordination of Care (CC)	0.85	1
5	Provision of Support (PS)	0.89	1
5	Technical Care (TC)	0.89	-
6	Interpersonal Support (IntSup)	0.88	-
6	Job-Task Support (J-TSup)	0.86	-
3	Compliance (Com)	0.81	-
3	Volunteering for Additional Duties (VAD).	0.85	-

4. DISCUSSION

4.1. Descriptive Analysis

The general statistical description of variables used in this study was examined by using descriptive analysis. Statistical values of means, standard deviation, minimum and maximum were calculated for the independent variables, the mediating variable, the moderating variable and the dependent variable. The results of these statistical values are shown in **Table 5**. As mentioned in Chapter 4 the variables were measured on a five-point scale.

The standard deviation describes the spread or variability of the sample distribution values from the mean and is perhaps the most valuable index of dispersion (Zikmund *et al.*, 2012). If the estimated standard deviation is large, the responses in a sample distribution of numbers do not fall very close to the mean of the distribution. If the estimated standard deviation is small, the distribution values are close to mean (Hair *et al.*, 2010). In other words, if the estimated standard deviation is smaller than 1, it means the respondents were very consistent in their opinions, while if the estimated standard deviation is larger than 3, it means the respondents had a lot of variability in their opinions (Hair *et al.*, 2010).

Table 5 presents the summary of means of the independent variables, mediating variable, moderating variable and dependent variables. The mean for all variables was between 1.27 and 3.97.



Table 5. Mean, Standard deviation, minimum and maximum of job demands resources, job stress, Organizational Support and Nurses' (Task and Contextual) Performance (N = 632)

Variables	Mean	SD	Minimum	Maximum
Quantitative demands (QD) ^a	2.09	0.69	1.00	4.00
Physical demands $(PD)^b$	2.13	0.63	1.00	3.75
Emotional demands (ED) ^c	1.93	0.56	1.00	3.25
Shift work (SW) ^d	1.27	0.43	1.00	2.00
Skill variety $(SV)^e$	3.46	0.87	1.50	5.00
Task significance (TS) ^e	3.73	0.84	2.00	5.00
Task identity (TI) ^e	3.74	0.63	2.67	4.67
Feedback (FB) ^e	3.53	0.86	1.33	5.00
Job security (JSec) ^e	2.64	1.28	1.00	5.00
Job stress (JS) ^f	2.35	1.29	1.00	5.00
Organizational support (OS) ^e	3.34	0.75	1.50	5.00
Provision of information (PI) ^g	3.45	0.79	1.57	5.00
Coordination of care (CC) ^g	3.82	0.80	1.60	5.00
Provision of support (PS) ^g	3.60	0.79	1.40	5.00
Technical care (TC) ^g	3.97	0.78	1.80	5.00
Interpersonal support (IntSup) ^h	3.73	0.82	1.50	5.00
Job-task support (JTSup) ^h	3.24	0.78	1.33	5.00
Compliance (Com) ^h	3.72	0.84	1.67	5.00
Volunteering for additional duties (VAD) ^h	3.62	0.84	1.33	5.00

Note: $a^a1 = \text{hardly ever}$, 2 = seldom, 3 = a few times, 4 = many times, 5 = always; $b^a1 = 0.1$ time a day, 2 = 2.4 times a day, 3 = 5.7 times a day, 4 = 8.10 times a day, 5 = 8.10 times a day; $b^a1 = 8.10$ times a day, $b^a1 = 8.10$ times a day; $b^a1 = 8.10$ times, $b^a1 = 8.10$ times a day, $b^a1 = 8.10$ times a day

In general, close to half of the variables (47.37%) had moderate mean values between 2.34 and 3.67 (skill variety, feedback, job security, job stress, organizational support, provision of information, provision of support, job-task support and volunteering for additional duties). On the other hand, 31.58% of the variables had mean values of more than 3.67 (task significance, task identity, coordination of care, technical care, interpersonal support and compliance) and 21.05% had low mean values of less than 2.34 (quantitative demands, physical demands, emotional demands and shift work).

4.2. Level of Job Performance (Task and Contextual) among Hospital Nurses

The first research question dealt with job performance level among hospital nurses' in public hospitals in Saudi Arabia. This requires an analysis by mean test to determine the level nurses' performance. As shown in **Table 6**, the job performance level among hospital nurses' in public hospitals in Saudi Arabia as perceived by the nurses' hospital was rated to be "moderate" (mean = 3.62).

Table 6. Mean values of nurses' performance (Task and Contextual) (n = 632)

Variables	Mean
Provision of information (PI) ^a	3.45
Coordination of care (CC) ^a	3.82
Provision of support (PS) ^a	3.60
Technical care (TC) ^a	3.97
Overall task performance ^a	3.67
Interpersonal support (IntSup) ^b	3.73
Job-task support (JTSup) ^b	3.24
Compliance (Com) ^b	3.72
Volunteering for additional duties (VAD) ^b	3.62
Overall contextual performance ^b	3.55
Overall performance overall	3.62
N 4 21 N 6 1 1 1 1 0 0 1 4 1 1	2

Note: ^a1 = Much below average, 2 = Somewhat below average, 3 = Average, 4 = Somewhat above average, 5 = Much above average; ^b1 = not at All, 2 = minimally, 3 = somewhat, 4 = quite a bit, 5 = a great deal

The main purpose of the present study was to examine the determinants of job performance among nurses in public hospitals in the Kingdom of Saudi. Specifically, the study examined the direct relationship of job demands (i.e., physical demands, emotional demands, quantitative demands and shift work) and job



resources (i.e., skill variety, task significance, task identity, feedback and job security) on nurses' job performance. Towards this end, a number of research hypotheses were formulated. In general, the present study has provided empirical support for the determinants of nurses' job performance.

The present study found that nurses in public hospitals in the Kingdom of Saudi Arabia demonstrated moderate level of job performance (mean = 3.62). The level of nurses' performance in the present study is somewhat similar to that reported in previous research on Saudi hospital nursing sector. For instance, Al-Ahmadi (2009) examined self-rated performance levels among nurses working in Ministry of Health hospitals in Saudi Arabia. He identified a moderate level of job performance at 3.52 out of 5-point scale. Moreover, Greenslade and Jimmieson (2007) in their study to distinguish between task and contextual performance for nurses found the level of nurses' performance was moderate at 3.50.

5. CONCLUSION

This research has investigated the factors influencing nurses' job performance among the Ministry of Health hospitals in Saudi Arabia using job demands and resources model based on Conservation of Resources theory (COR), social exchange theory and negative linear theory that may help nurses' managers to realize nurses' performance behavior. The findings showed that the nurses' job performance can be modeled by the Job Demands and Resources (JD-R) model original constructs in addition to other significant variables derived from other related theories. The present research model was tested and validated with 632 hospitals nurses in one region in Saudi Arabia. The study on the factors affecting the hospitals nurses in Saudi Arabian Ministry of Health was deemed necessary in order to increase the nurses' job performance.

The study found the level of nurses' job performance among hospitals nurses in Saudi Arabia to be moderate. Also the study found direct significant relationships among the tested job demands and resources variables with nurses' job performance. Moreover, the study found partial support for the role of job stress as a mediator in a relationship between Job Demands and Resources (JD-R) and nurses' job performance. Job stress mediated the relationship between job demands and resources variables (except job security) and two dimensions of job contextual performance (compliance and volunteering for additional duties).

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