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7 **Direct and Moderating Effects of Work Environment and Structural**
8 **Empowerment on Job Stress and Job Satisfaction Among Nurses in the**
9 **Sultanate of Oman**

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20

21 **Abstract**

22 **Objective:** This paper seeks to explore the relationships between nurses' work environment, job
23 stress, and job satisfaction, as well as the moderating effects of work environment and
24 empowerment on the job stress–job satisfaction relationship. **Methods:** A descriptive
25 correlational design was utilized. The study encompassed a convenience sample of 1,796
26 hospital nurses from the 11 governorates in Oman. A self-report questionnaire that included a set
27 of instruments was used to collect data. **Results:** The results showed that nurses who perceived
28 higher levels of job stress reported lower levels of satisfaction and empowerment, and perceived
29 their work environment as less favorable and supportive. The findings only confirmed the direct
30 effects of work environment and empowerment on satisfaction; there was no support for indirect

31 or moderating effects. The hierarchical regression model showed that 46.5% of the variation in
32 the level of job satisfaction was explained by the study variables. **Conclusion:** The results of this
33 study demonstrate the importance of implementing strategies that empower staff, provide a
34 supportive and positive work environment, and tackle job stress to enhance levels of job
35 satisfaction.

36 **Keywords:** Work Environment; Empowerment; Job Stress; Job Satisfaction; Nurses; Oman.
37

38 **Advances in Knowledge:**

- 39 • The findings of the study supported the negative correlations between job stress and job
40 satisfaction, job stress and work environment, and job stress and empowerment.
- 41 • The findings support the positive direct effects of work environment as well as
42 empowerment on job stress and job satisfaction; while the indirect or moderating effects
43 of work environment and empowerment on job stress-job satisfaction relationship were
44 not supported among nurses working in Oman.
- 45 • Background variables, job stress, work environment, and empowerment explained 46.5%
46 of the variation in the level of job satisfaction among nurses working in Oman.
- 47 • The results support the existing evidence on the importance of adopting and
48 implementing strategies that tackle job stress and promote a supportive work
49 environment as well.

51 **Application to Patient Care:**

- 52 • Auditing healthcare services, implementing programs to lean process of tests and
53 procedures execution, and investing in subacute health services and home-based care
54 programs are essential steps to improve early discharges and minimize inappropriate
55 hospital stay.
- 56 • Identifying modifiable factors that can enhance satisfaction among nurses working in
57 Oman can help improve the quality of care provided to patients as well.

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61

62 **Introduction**

63 Working in healthcare is stressful and can be physically and emotionally demanding.¹ The work
64 environment can either support or hinder workers' health and performance. Therefore, promoting
65 a healthy work environment has become a focus of healthcare organizations worldwide.

66
67 Research evidence has shown a strong association between supportive work environment and
68 nurse outcomes: including enhanced quality of patient care, lower levels of job stress, fewer
69 adverse events, higher levels of job satisfaction, reduced levels of intention to leave, and higher
70 levels of willingness to engage in leadership roles.²⁻⁷

71
72 In contrast, unhealthy work environments can lead to negative staff outcomes, such as higher levels
73 of job stress and lower levels of job satisfaction. Evidence has shown that unhealthy work
74 environments lead to decreased productivity, increased turnover rates, and increased healthcare
75 costs by billions of dollars annually.⁸ Working in unhealthy work environment can negatively
76 impact patient safety and quality outcomes.⁶ Exploring the work environment and its underpinning
77 variables is therefore paramount in healthcare institutions.

78
79 One such variable is the concept of empowerment, which is well researched among nurses. The
80 structural empowerment model⁹ based on Kanter's theory¹⁰ stands out among the various
81 models in the nursing context. According to Kanter,¹⁰ the characteristics of the work
82 environment determine work behaviors and attitudes, regardless of personal characteristics.
83 Thus, when the workplace is characterized by a supportive work environment that provides the
84 "necessary power" to meet job demands, nurses feel empowered. Mounting evidence has
85 demonstrated a strong positive relationship between structural empowerment and job
86 satisfaction.^{11,12} A meta-analysis of 59 studies showed that higher levels of job satisfaction
87 among hospital nurses are associated with a positive work environment, an increased level of
88 structural empowerment, and a decreased level of job stress.¹³

89
90 Nursing is regarded as a stressful profession.¹⁴ Psychological risks at work, such as job stress,
91 conflicts, and excessive workloads, have become one of the challenges of the 21st century due to
92 their negative impact on staff and organizational outcomes.¹⁵ Job stress and strain have been

93 associated with the physical and mental health and well-being of employees.¹ Increased levels of
94 job stressors are significantly correlated with burnout and decreased levels of empowerment.¹⁶

95
96 Exploring job satisfaction and its associated variables has been of great interest to nurse
97 researchers around the globe. To date, several variables that have mediating or moderating
98 effects on job satisfaction have been identified by researchers.¹³ Despite the abundance of
99 research on job stress and satisfaction, there has been a relative lack of studies that focus on the
100 association between empowerment and job stress and their impact on job satisfaction among
101 nurses. To the author's knowledge, no study worldwide has investigated specifically the
102 moderating effects of work environment and empowerment on the job stress–job satisfaction
103 relationship. However, studies in Western countries have investigated these concepts with
104 different aims. Evidence of the impact of the nurse work environment on nurses' outcomes in the
105 Sultanate of Oman is scant. Thus, this study was conducted to explore the direct and moderating
106 effects of work environment and structured empowerment on job stress and job satisfaction
107 among nurses in the Sultanate of Oman.

108

109 **Methods**

110 *Study Design*

111 A descriptive correlational design was used to answer research objectives.

112

113 *Setting and Sampling Procedure*

114 A convenience sampling method was used to recruit nurses who had at least one year of
115 experience and at least a diploma degree. The required participants were recruited conveniently
116 from a proportional stratified clustered sample of hospitals from the 11 governorates of Oman.
117 Hospitals were stratified based on two dimensions: type (private vs. public hospitals) and
118 location (based on the 11 governorates in the country). Public hospitals included both those
119 under the Ministry of Health and those not under the Ministry of Health. The population of
120 governorates in the Sultanate is geographically diverse. For that reason, some governorates have
121 only one public hospital. For governorates that have more than one public and/or more than one
122 private hospitals, hospitals were selected using convenience approach. For example, in Muscat,

123 where there are several public and private hospitals, hospitals were selected based on their
124 convenient accessibility.

125

126 ***Population and Sample Size***

127 The sample size in the present study was 1,796 registered nurses. The sample size was based on
128 the calculated total accessible population size of nurses working in Oman which was 11,096 at
129 the time of the survey.¹⁷ According to Yamane's standardized formula for calculating sample size
130 from the defined population,¹⁸ the estimated sample size was 386 nurses. However,
131 given that the sample was drawn from 11 governorates in the Sultanate, applying these
132 calculations will mostly result in unrepresentative sample. Therefore, the researchers decided to
133 sample at least 10% of the accessible population to produce representative results. A total of
134 2000 nurses were recruited from across the 11 governorates. The use of this method is supported
135 in the literature.^{6,19}

136

137 ***Data Collection Procedure and Ethical Considerations***

138 Approvals from the institutional review boards of the affiliated university, the ministry of health,
139 and the targeted private hospitals were granted before the study commenced. The purpose and
140 significance of the study were explained to the nurse administrators and participants. Nurses
141 were invited to participate by research assistants during different shifts. Participants were
142 provided with a package that contained information about the purpose and significance of the
143 study, as well the study instruments [the Nursing Work Index (PES–NWI), the Conditions of
144 Work Effectiveness Questionnaire–II (CWQ–II), one question to assess job satisfaction: “How
145 satisfied are you with your current job?”, and the Perceived Stress Scale], and a return envelope.
146 The English version of all instruments was used as there were expatriate nurses among the
147 sample. Participants were asked to drop the completed surveys in a locked box in their manager's
148 office. Participants were assured that their responses would remain confidential and would be
149 reported in aggregate form.

150

151 ***Instruments***

152 Nursing practice environment was measured using the 31-item Practice Environment Scale of the
153 Nursing Work Index (PES–NWI).²⁰ The PES–NWI consists of 31 items and 5 subscales: nurse

154 participation in hospital affairs; nursing foundation for quality care; nurse manager ability,
155 leadership, and support of nurses; staffing and resource adequacy; and collegial nurse–physician
156 relations. Items are rated on a four-point Likert scale ranging from 1 (*strongly disagree*) to 4 for
157 (*strongly agree*). A score below an average of 2.5 for the scale or its subscales represents
158 disagreement, while a score of an average higher than 2.5 represents agreement that the scale or
159 the subscale items are present in the current practice environment. The scale was reported to be
160 reliable and valid in previous studies.^{6,20} In the present study, the alpha coefficient was 0.94.

161
162 Structural empowerment was evaluated using the Conditions of Work Effectiveness
163 Questionnaire–II (CWQ–II).²¹ The CWQ–II is a 12-item Likert scale ranging from 1 for *none* to
164 5 for *a lot*. It measures four dimensions of empowerment: information, access to opportunity,
165 support, and resources. The reliability and validity of the scale have been well established
166 (Cronbach’s alpha = 0.82 for the composite score).²¹

167
168 Job satisfaction was assessed using a single question: “How satisfied are you with your current
169 job?”. Responses range from 1 for *very dissatisfied* to 4 for *very satisfied*. This measure has been
170 widely used in international health services studies.^{22,23} It has also been selected over other
171 measures of job satisfaction to overcome the overlap with the satisfaction components of the
172 PES–NWI.

173
174 Job stress was measured using the four-item Perceived Stress Scale.²⁴ Respondents are asked to
175 indicate their agreement with each item on a 5-point Likert scale from 0 for *never* to 4 for *very*
176 *often*.

177
178 A demographic form was used to collect information on participants’ age, gender, level of
179 education, nationality, years of work experience, marital status, place of work, and position.

180

181 ***Data Analysis***

182 SPSS version 22 was used for analysis. Descriptive statistics were utilized to analyze
183 participants’ characteristics. Pearson’s correlation coefficient was used to examine the
184 relationships between the study variables. Hierarchical regression analysis was used to examine

185 the moderating effects of work environment and empowerment on the job stress–job satisfaction
186 relationship and the variance in job satisfaction explained by the study variables. Variables with
187 more than 10% missing data were excluded from the final analysis. A *P* value of 0.05 was set as
188 the cutoff for significance; however, the exact *p* values whether higher or lower than 0.05 were
189 reported for all statistical tests.

190

191 **Results**

192 *Characteristics of the Sample*

193 A total of 1,796 registered nurses working in Omani hospitals participated in the study. The
194 mean age of the participants was 34 years (*SD* = 6.9); with a range from 20 to 61 years. The
195 majority of them were females (*n* = 1,546; 87.2%), married (*n* = 1,388; 79.4%), and worked as
196 staff nurses (*n* = 912; 76.8%). More than 50% of the participants were expatriates (*n* = 1,030;
197 58.5%) who worked full-time (*n* = 1,560; 91.9%) in governmental (*n* = 1,750; 97.4%) and non-
198 teaching hospitals (*n* = 983; 54.7%). The mean value for nurses' experience in their current unit
199 was 7.3 years (*SD* = 5.1). Around 42% of the participants had a bachelor's degree (*n* = 731;
200 41.9%). More than a third of the participants (*n* = 253; 37.6%) worked day shifts in different
201 units, such as medical–surgical (*n* = 601; 35.2%) and critical care (*n* = 509; 29.9%). Background
202 variables were analyzed and reported separately for Omani and expatriate nurses. Table 1
203 presents the data regarding participants' background variables.

204

205 *Variables of the Study*

206 The results showed that the participants of the present study perceived a low level of job stress
207 (*M* = 1.7; *SD* = .59 on a scale from 0 to 4); and above a moderate level of Job satisfaction (*M* =
208 2.9; *SD* = .76 on a scale from 1 to 4). The results also showed that participants perceived their
209 work environment as positive (*M* = 2.8; *SD* = .90 on a scale from 1 to 4). All five subscales of the
210 work environment scale were perceived positively. The subscale that received the highest rating
211 was “Foundations for quality care (*M* = 3, *SD* = 0.47). On the other hand, “Staffing and
212 resources adequacy” was perceived as the lowest among the subscales (*M* = 2.7, *SD* = 0.62).
213 Further, the participants perceived above moderate level of empowerment (*M* = 3.5; *SD* = .71 on
214 a scale from 1 to 5). The subscale “Access to opportunity” was rated by participants as the
215 highest (*M* = 3.7, *SD* = .90), followed by “Access to information” (*M* = 3.5, *SD* = .92) and

216 “Access to support” ($M = 3.5$; $SD = .92$). “Access to resources” was rated as the lowest ($M =$
217 3.2 , $SD = .86$). Table 2 presents data about means and standard deviations of the study variables.

218
219 Further analysis showed that expatriate nurses perceived (1) lower levels of job stress in
220 comparison with their counterparts (Expatriate nurses: $M = 1.7$; Omani nurses: 1.9 ; $p = .001$); (2)
221 their work environment more positively than Omani nurses (Expatriate nurses: $M = 2.9$; Omani
222 nurses: 2.7 ; $p = .001$); (3) and higher levels of structural empowerment than Omani nurses
223 (Expatriate nurses: $M = 3.6$; Omani Nurses: 3.2 ; $p = .001$); and higher levels of Job satisfaction
224 in comparison with their counterparts (Omani nurses) (Expatriate nurses: $M = 3.1$; Omani
225 Nurses: $M = 2.6$; $p = .001$). Table 3 presents data about difference between Omani and expatriate
226 nurses concerning study variables.

227
228 Moreover, analysis was done to examine if the levels of job stress, work environment,
229 empowerment and job satisfaction vary according to the education degree of participants and the
230 type of hospital. The results showed that a significant difference was only found for the stress
231 level; wherein nurses who had diploma degree perceived higher levels of stress than nurses with
232 bachelor degree ($t = 2.5$, $p = .01$). For the type of hospital, the results showed that significant
233 differences were only found for the work environment and empowerment; wherein nurses who
234 worked in private hospitals perceived higher levels of empowerment ($t = -3.4$, $p < .001$) and
235 perceived their work environment more positive ($t = -5.1$, $p < .001$) than nurse who work in
236 governmental hospitals.

237 238 ***Relationships Between Study Variables***

239 The results showed that there was a significant negative correlation between job stress and job
240 satisfaction ($r = -.32$, $p < 0.001$); that is, nurses who perceived having more job stress had lower
241 perceptions of job satisfaction. Job stress was also negatively correlated with work environment
242 ($r = -.19$, $p < 0.001$) and empowerment ($r = -.19$, $p < 0.001$); that is, nurses with higher levels of
243 job stress perceived lower levels of empowerment and a less supportive work environment.
244 Regarding the relationships between work environment, job satisfaction, and empowerment, the
245 results showed significant positive correlations between work environment and job satisfaction (r
246 $= .31$, $p < 0.001$), and between work environment and empowerment ($r = .47$, $p < 0.001$). That is,

247 nurses who perceived their work environment as supportive reported higher levels of job
248 satisfaction and empowerment. Furthermore, empowerment was positively correlated with job
249 satisfaction ($r = .18, p < 0.001$). That is, nurses who felt more empowered were more satisfied at
250 work. Table 4 presents data about correlations for work environment, empowerment, job stress,
251 and job satisfaction.

252
253 Hierarchical regression analysis was utilized to investigate the moderating effects of work
254 environment and empowerment on the job stress–job satisfaction relationship. Table 5 presents a
255 summary of the hierarchical regression analysis. In the first step, the demographic and work-
256 related variables (age, experience in the current unit, nationality, gender, marital status, level of
257 education, work unit, type of hospital, work status, shift worked) were entered to control for their
258 effects on the dependent variable (job satisfaction). These variables explained 31% of the
259 variation (R^2) in job satisfaction (cumulative $R^2 = 31\%$).

260
261 In the second step, job stress was entered in the regression model. It showed that job stress
262 explained an additional 13% of the variation in job satisfaction (R^2 change = 13%, cumulative R^2
263 = 44%, $p < 0.01$). This step showed that the relationship between job stress and job satisfaction
264 was negative ($r = -.39, p < 0.001$).

265
266 In the third step, work environment was added to the regression model. Work environment
267 explained another 2% of the variation in job satisfaction (R^2 change = 2%, cumulative $R^2 = 46\%$,
268 $p < 0.01$). This increase in R^2 was statistically significant, which demonstrated that the
269 perception of a positive work environment enhanced the level of job satisfaction ($r = 0.16, p <$
270 0.001).

271
272 In the fourth step, the empowerment variable was added to the model. It showed only a 0.003
273 addition to the cumulative R^2 (46.3%), which did not reach the level of significance.

274
275 In the fifth step, the product or multiplicative term of work environment and job stress was added
276 to the model to explore the moderating effect of work environment on the job stress–job
277 satisfaction relationship. This step showed only a 0.002 addition to the cumulative R^2 (46.5%),

278 which was insignificant. This indicated that the interaction between job stress and work
279 environment had no moderating effect on the job stress–job satisfaction relationship.

280
281 In the sixth step, the product of empowerment and job stress was added to the model to explore the
282 moderating effect of empowerment on the job stress–job satisfaction relationship. This step showed
283 no addition to the cumulative R^2 (46.5%). This indicated that the interaction between job stress and
284 empowerment had no moderating effect on the job stress–job satisfaction relationship.

285 286 **Discussion**

287 The findings of the study indicated that participants of the study reported a low level of stress.
288 However, Omani nurses reported higher levels of job stress in comparison to their counterparts
289 (expatriate nurses). This might be related to the fact that expatriate nurses are older and had more
290 years of experience than Omani nurses. This is an indication that Omani nurses are more junior,
291 with less experience at work, which might have implication on their management of stressful
292 situations.

293
294 Research evidence had showed that as age and years of experience of staff increased, their job stress
295 levels decreased as well.^{22,23} The results also showed that a higher percentage of Omani nurses
296 (62.5%) had diploma degrees in comparison to expatriate nurses (51.8%); this might also have
297 contributed to the higher levels of stress among Omani nurses as the results of the present study
298 revealed that participants with diploma degrees reported higher levels of stress comparing to those
299 with bachelor degrees. The results also showed that participants of the study reported above average
300 level of job satisfaction and empowerment and perceived their work environment as positive.
301 However, the results showed that Omani nurses reported lower levels of job satisfaction and
302 empowerment and perceived their work environment as less positive in comparison with expatriate
303 nurses. This could be related to the fact that Omani nurses reported higher stress levels than their
304 counterparts, which in turn lead to dissatisfactions and poor perceptions of their work environment as
305 was showed in the present study and in previous literature.^{1,13,16,22}

306
307 Further, the results also showed that a higher percentage of Omani nurses (99.9%) worked in
308 governmental hospitals in comparison to expatriate nurses (95.9%); this might also have contributed

309 to the lower levels of empowerment and the less positive perceptions of work environment among
310 Omani nurses as the results of the present study revealed that participants who worked in private
311 hospitals reported higher levels of empowerment and perceived their work environment more
312 positive comparing to those working in governmental hospitals.

313
314 The findings of the study supported the negative correlation between job stress and job satisfaction
315 and added to the research evidence on this issue.¹³ Increased stress levels affect the mental well-being
316 of nurses and lead to Job dissatisfaction. There is a vicious circle between job stress and job
317 satisfaction where higher stress levels enhance job dissatisfaction which in turn increase stress
318 levels.²² The results also indicated significant negative relationships between job stress and work
319 environment and empowerment. That is, nurses who perceived higher levels of job stress perceived
320 their work environment as less positive. Stressed nurses usually do not participate in hospital
321 affairs, do not focus on their collegial relationships and perceived resources in their organizations
322 to be inadequate; thus they perceived their work environment as less supportive. This result is
323 congruent with the findings of previous studies.^{1,16,24} Furthermore, nurses who perceived higher
324 levels of job stress reported lower levels of empowerment. This result confirms the findings reported
325 by other researchers^{11,13,16} and adds an Omani cultural perspective to the international evidence in the
326 literature.

327
328 Nurses in the present study rated the characteristics of their work environment concerning the
329 participation in hospital affairs, staffing and resources adequacy, adequate access to support form
330 colleagues and perceptions of manager leadership abilities above the moderate level. However, it
331 is worth noting they rated staffing and resources adequacy as a dimension of their work
332 environment as well as access to resources as a dimension of structural empowerment as the
333 lowest among other dimensions. Evidence from research showed that better perceptions of work
334 environment characteristics can lead to reduced stress levels and enhanced empowering levels of
335 staff.^{25,26}

336
337 Moreover, the results showed that nurses who perceived their work environment as supportive
338 reported higher levels of job satisfaction. This result is consistent with the results of other
339 previous studies.^{1,25,27} Staff experiences at work and how they perceive their work environment

340 affects their personal well-being as well as their levels of job satisfaction. A positive work
341 environment was also associated with higher levels of empowerment. This result is congruent
342 with the findings of a previous study.²⁶ Such results highlight the important role of nurse
343 administrators in creating a work environment that values and promotes the empowerment of
344 nurses.

345
346 Concerning the moderating effects of empowerment and work environment on the job stress–job
347 satisfaction relationship, the results showed that there was no moderating or indirect effect of
348 either work environment or empowerment on the relationship between job stress and job
349 satisfaction. The results of the present study provided evidence only for the direct effect of work
350 environment and empowerment on the level of job satisfaction. Nonetheless, the results highlight
351 the importance of providing a supportive work environment and empowering all employees, not
352 only highly stressed ones. The regression model that included background variables (31%), job
353 stress (13%), work environment (2%), empowerment (0.04%), the product of stress and work
354 environment (0.02%), and the product of stress and empowerment (0%) explained 46.5% of the
355 total variation in job satisfaction. This percentage signifies the importance of the variables of job
356 stress, work environment and empowerment in the prediction of the level of job satisfaction.

357
358 Concerning the limitations of the study, the subjective measurement of the study variables might
359 have created reporting bias. Furthermore, the convenience sampling method might have limited
360 the generalizability of the results. However, the latter was enhanced by the fact that the study
361 utilized a national sample from different governorates of Oman.

362

363 ***Implications and Recommendations***

364 The findings of the study emphasize the importance of implementing strategies to create a
365 positive work environment. The perceptions of Omani nurses about their work environment need
366 to be checked frequently. It is recommended to take suggestions from nurses themselves to
367 improve the work environment. The explanatory regression model points to the significance of
368 managing stress and providing a supportive work environment to enhance nurses' job
369 satisfaction. Experienced nurses' opinions need to be considered when developing strategies
370 regarding their job satisfaction and work environment. Nurse managers should also help their

371 staff manage their stress by implementing stress management programs. Another area of specific
372 concern for nurses working in Oman was that the adequacy of staffing and resources. The issue
373 of nurse staffing is a global concern in health care organizations. It is imperative for nurse
374 managers to advocate for adequate staffing and resources in their units since these factors impact
375 both nurses' and their patients' outcomes. They need to create an organizational culture that
376 embraces a supportive work environment and empowers nurses through providing adequate
377 resources, support, teamwork, and cooperation.

378

379 **Conclusion**

380 The findings of the present study provided evidence only for the direct effects of work
381 environment and empowerment on job satisfaction with no support for the indirect or moderating
382 effects. The results also showed that nurses, working in Oman, who had higher levels of job
383 stress perceived lower levels of job satisfaction and empowerment and a less supportive work
384 environment. Further, nurses who perceived their work environment as supportive reported
385 higher levels of job satisfaction and empowerment. Therefore, nurse administrators need to adopt
386 and implement strategies that tackle job stress, empower staff, and promote a supportive work
387 environment for nurses working in Oman.

388

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391

392 **Conflicts of Interest**

393 The authors declare no conflict of interests.

394

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398

399 **Author Contributions**

400 RAA, SDS and OA-R conceptualized the study. OA-R designed the methodology and supervised
401 the work. RAA performed the formal analysis and provided the visualization. RAA, SDS, LJJ

402 and IAB drafted, reviewed and edited the manuscript. All authors approved the final version of
403 the manuscript.

404

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487

488 **Table 1:** Background variables of participants (n = 1796)

Characteristic	Total (n= 855)
Age (years)-Median (IQR)	64 (44-75)
Female-no (%)	401(46.9%)
Male -no (%)	454 (53.1%)
The average length of hospital stays (days)-median (IQR)	5 (3-9)
Total hospitalisation days (n)	6785.4
Admissions with appropriate date of discharge no (%)	583 (68.2%)
Admissions included inappropriate hospitalization days -no (%)	272 (31.9%)
Total number of inappropriate hospitalization days (days)	674
Mortality- no (%)	29 (3.4%)

489 *Note.* The sample of some variables do not add to the total sample due to missing data

490

Table 2: Means and standard deviation (SD) of Study variables (n = 1796)

Variable (Scale and Subscales)	Mean (SD)
Job Stress	1.7 (.59)
Job Satisfaction	2.9 (.76)
Work Environment	2.8 (.40)
Participation in hospital affairs	2.8 (.55)
Foundations for quality of care	3 (.47)
Manager ability, leadership and support	2.9 (.54)
Staffing and resource adequacy	2.7 (.62)
Collegial nurse–physician relations	2.9 (.54)
Structural Empowerment	3.5 (.71)
Access to opportunity	3.7 (.90)
Access to resources	3.2 (.86)
Access to information	3.5 (.92)
Access to support	3.5 (.90)

494 **Table 3:** The differences between Omani and expatriate nurses concerning study variables (n =
 495 1796)

Variable		Mean (SD)	t-test	P value
Job Stress	Omani Nurses	1.9(.54)	10.4	.001
	Expatriate Nurses	1.7(.59)		
Work Environment	Omani Nurses	2.7(.41)	-11.2	.001
	Expatriate Nurses	2.9(.40)		
Structural Empowerment	Omani Nurses	3.2(.72)	-11.8	.001
	Expatriate Nurses	3.6(.65)		
Job Satisfaction	Omani Nurses	2.6(.84)	-12.2	.001
	Expatriate Nurses	3.1(.65)		

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512 **Table 4:** Pearson correlations for work environment, empowerment, job stress, and job
513 satisfaction (n = 1796)

	Work environment	Empowerment	Job Stress	Job Satisfaction
Work Environment	1			
Empowerment	0.47**	1		
Job Stress	-0.19**	-0.19**	1	
Job Satisfaction	0.31**	0.18**	-0.32**	1

514 *Note.* ** Correlation is significant at $p < 0.01$

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516 **Table 5:** Hierarchical regression for job satisfaction as a dependent variable (n=1796)

Step	Variables	R² Cum.	R² change	<i>Std β</i>	t value	P
1	Background Variables	0.31	0.31	-	-	-
2	Job Stress	0.44	0.13	-0.39	-9.5	<0.001
3	Work Environment	0.46	0.02	0.16	3.9	<0.001
4	Empowerment	0.463	0.003	-0.002	-.05	0.96
5	Stress * Work Environment	0.465	0.002	0.31	1.1	0.26
6	Stress * Empowerment	0.465	0.00	0.14	.67	0.50

517
518

519 Final model = **R²** = 0.465 (adjusted **R²** = 0.44), $F(16,392) = 21.31, p < 0.001$.

520 Std b, the standardized b coefficient; **R²** Cum. = **R²** Cumulative.

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