

## The moderation effect of self-efficacy on the relationship between job demand and job satisfaction among nurses

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**Abstract:** Job demand and job dissatisfaction among nurses have been reported to be strongly associated with negative consequences and reported as significant indicators of the quality of nursing care. The most significant source of workplace stress is job demand, which has been linked to negative effects on nurses' ability to perform their duties. Personal factors such as self-efficacy were found to influence nurses' ability to manage job demand and its negative impact on the profession. The purpose of this study was to examine the moderating effect of self-efficacy on the relationship between job demand and job satisfaction among nurses working at public hospitals. A quantitative, cross-sectional, correlational design was utilized to randomly recruit 427 registered nurses working at two major public hospitals. Data were collected using a self-administered questionnaire regarding job demand, job satisfaction, and self-efficacy. The statistical analysis revealed that self-efficacy has a significant positive effect on the job demand-job satisfaction (JD-JS) relationship ( $\beta = .680, p < .001$ ), inferring that nurses with a higher level of self-efficacy are more likely to buffer the correlation between job demands and job satisfaction. This study adds a novel contribution to the body of knowledge that the buffering effect of self-efficacy among nurses is much dependent on the relationship between job demand and job satisfaction, consequently improving job satisfaction.

**Keywords:** Job Demand, Job Satisfaction, Nursing, Self-Efficacy

### Introduction

Work stress in the nursing profession is among the universal problems that challenge nurses and nursing performance. The nursing profession is a stressful and highly demanding profession where most nurses report high to very high job stress [1]. The nursing profession necessitates nurses to take on a variety of duties. These jobs include dealing with patients who vary in their healthcare needs and demands, working for long work hours, and in uncertain working load conditions [2,3]. The literature provided evidences that handling such tasks would lead to job stress and traumatic experiences [4]. The term job distress has been used alternatively with job demands, assuming the connection between the cause and the effect [5]. Job demands in nursing were discussed widely in the literature as resulting in many negative consequences such as poor quality of care, burnout, poor health, greater intent to leave, and lower job satisfaction [6]. Nurses were under the most strain out of all healthcare professionals [7]. Furthermore, the unfavorable effects of nurses' high demand on their jobs financially strain healthcare institutions and exacerbate disease, lower overall care quality, staff attrition, absenteeism, and job discontent [8]. In order to offer nursing care, nurses must have a holistic viewpoint that takes into account the needs of patients' physical, mental, and work-related needs. These expectations have been amply demonstrated as job stressors in the literature. Nonetheless, nurses may have increased job demands due to emotional strain from handling suffering and interpersonal conflict [9]. Furthermore, limited resources and a working environment with a higher nurse-patient ratio are other sources of physical demands on nurses [8]. This would indicate that job demand is a multidimensional factor connected to various forms of professional practices and might interfere with nurses' provision of care.

While nurses are required to perform their job and provide quality nursing care, nurses are, on the other hand, struggling to manage stress produced by the demands of the job. Previous studies showed that nurses who reported high levels of job demands had poor health and job outcomes and high levels of job dissatisfaction and secondary traumatic experience [7,4]

Higher quantitative and emotional demands, in particular, are associated with poor self-rated health, higher sleeping troubles, and work-family conflict resulting in multiple-role conflicts and strains, burnout, greater intent to leave and lower job satisfaction [10]. In general, high levels of job demands are linked to poor health care outcomes and low-quality nursing care [7]. Although the link between job demands and job dissatisfaction is well-established in the literature, job dissatisfaction among nurses has been reported to be strongly associated with negative consequences such as intent to leave low-quality of care, high turnover, and high costs of nurses turnover [11,12]. In addition, nurses' job dissatisfaction may be connected to leaving the profession of nursing [13]. Thus, the literature has provided evidence that job demands and job satisfaction are interconnected, and they might also contribute to further negative consequences for the quality of nursing care provided and for institutional outcomes. However, searching for factors that buffer the effect of high job demands on nurses' job satisfaction has also provoked attention to nurses' personal qualities, such as self-efficacy [14]. The associations have been drawn between increased occupational stress and high job demands among nurses on one side and a number of negative outcomes, such as job dissatisfaction on the other [7]. This signifies that negative working conditions disable the nurses from doing their assumed roles and functions, resulting in low-quality nursing care and health care outcomes [15]. The efforts and progression in the science of biological studies and health sciences contributed to a better understanding of the mechanisms by which stress and job strains influence nursing performance. For example, job demand is connected to job satisfaction. In contrast, personal factors such as self-efficacy (SE) might work as buffering variables to minimize the negative effect of job demands on job satisfaction among nurses [16]. In addition, another study conducted by Bani Hani et al. (2016) supported that job demand is an unavoidable stressor that leads to many negative consequences and connects directly to job dissatisfaction [17]. So, there is a need to search for alleviating factors that decrease nursing stressors, its consequences and buffer the correlation between job demand and job satisfaction. In other words, personal factors such as self-efficacy were found

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to influence nurses' ability to manage job demands [18], and the effect of these factors, namely SE, has not been sufficiently addressed in the literature [14]. This raises the concern about how SE variables work and whether there is any proposed scheme to connect these variables. The interrelationship between these factors and how we can utilize the most beneficial link would significantly contribute to the body of science. Therefore, this study aimed to examine the relationship between these variables representing the moderating effect of SE on the relationship between job demands and job satisfaction. Managers and administrators need to focus on improving working conditions and buffering the impact of stressors and job demands that are inherited at work.

The link between job demands, job satisfaction, and self-efficacy is not well understood in Jordan. The literature has provided evidences that work-related stress is linked to lower level of satisfaction among nurses, and consequently, lowering their level of performance and quality of nursing care (Hamaideh et al., 2024). Nevertheless, the relationship between job demands and job satisfaction has never been examined, nor have they been examined as an independent variable or predictor. Despite the fact that studies conducted in Jordan have examined job satisfaction among nurses there, job needs among them have never been covered by correlations or relationship values. So, Jordanian research has never addressed the connection between job demands and job satisfaction. Additionally, no study was found that investigated nurses' personality traits (self-efficacy) in such a relationship.

## Method

### Design

This study examined the moderating effect of SE on the link between job demand and job satisfaction among nurses using a quantitative, cross-sectional, correlational design. A self-administered questionnaire was used to gather data, and it examined the relationship between nurses' job demand, job satisfaction, and SE (a moderating variable).

### Sample and setting:

The nurses were selected using a multistage cluster sampling technique from two Jordanian general public hospitals. The hospitals are regarded as the two main public referral hospitals in the nation, offering secondary and tertiary care to patients of various ages. They have many specialized care units, including critical care units (such as ICUs or CCUs) and general wards (such as medical and surgical wards). In the nation, those institutions housed the greatest number of registered nurses and the greatest number of beds. The public hospitals were deliberately chosen for this purpose using the previously mentioned criteria. The two main public hospitals from Jordan's northern and central districts were chosen as part of the recruitment sample. There are numerous large hospitals in Jordan that offer every specialty. The two hospitals that were chosen are the main ones located in the center district, which is home to the only referral hospital, and the northern district, which is home to the only referral hospital. There are 869 registered nurses in the hospital in the center and 255 in the hospital in the north. The proportionate sampling method was applied to find nurses. The proportion from each hospital was  $n/N = 35\%$ . Therefore, 305 (of 869) and 90 (of 255) nurses from the central and northern hospitals, respectively, made up the necessary sample. The necessary sample size was then chosen from each hospital using a systematic random sampling procedure (selecting every third nurse). In order to ensure that nurses had received proper training and knowledge, had completed an orientation program, and were familiar with the policies, procedures, and nursing care protocols of the targeted hospital, the inclusion criteria were: (1) registered nurse providing direct bedside nursing care within the chosen hospital; and (2) having at least six months of work experience in nursing to increase variance and participation in nursing characteristics, no exclusion criteria were used. The power analysis (G Power program) for this research was predicated on the notion that self-efficacy positively impacted the correlation between work demand and job satisfaction. The standardized sample size table [19], states that a minimum of 395 nurses were needed if the

following criteria were met: nonsphericity correlation error at 1.0, standardized effect size small ( $R^2 = 0.02$ ), power = 0.80, at 0.05 two-tailed level of significant using R2 increase test statistics (regression analysis utilizing path analysis model of statistical analysis). The one predictor (moderating variable) that was taken into account when calculating sample size was one.

### Data collection

Following the acquisition of ethical clearances from the designated hospitals, the hospitals were informed about the study, asked to designate a facilitator to aid in recruiting nurses, and then contacted. Liaisons were allocated to nurse managers. Managers submitted lists of nurses who fulfilled eligibility requirements in each institution. Prospective volunteers were contacted and given details about the importance and goal of the study. The secrecy of their involvement was guaranteed, and nurses were informed that it would not affect their standing as registered nurses if they chose not to participate. This was included in the cover letter as well. It was recommended that nurses ask questions and receive answers to their inquiries. The survey packet was delivered to those who consented to participate. The package took roughly 20 minutes to complete and was written in Arabic. Nurses used sealed envelopes and either returned the surveys to the researchers directly or deposited them in a box designated for that purpose in the unit managers' offices. Nurses were asked to use a private room designated for that reason before or after duty hours. The researchers' office contained a locked cabinet containing the data. On the researcher's laptop, electronic forms were password-protected.

### Ethical considerations

The University of Jordan's School of Nursing's Scientific Research Committee granted ethical permission prior to data collection. Confidentiality was guaranteed to nurses, and they chose to participate voluntarily. Every participant provided written informed consent. The 1964 Helsinki Declaration, its later amendments, and similar ethical criteria, as well as the institutional research committee's ethical requirements, were followed in all study steps.

### Measurement and instruments

The survey was provided in Arabic. The instruments were utilized in Arabic, and two scales were translated in accordance with the World Health Organization's (2019) recommendations for translation. They were as follows: 1. The job demand scale [5] was used to measure job demand. Four distinct areas are included in the scale: shift work (SW), physical demand (PD), emotional demand (ED), and quantitative demand (QD). This scale consists of 19 items with a 5-point rating system for each, and it uses a one-factor model with commonalities up to 0.5. In every domain, a 5-point rating system is used to measure each item. In QD, 1 denotes hardly ever, 2 seldom, 3 occasionally, 4 frequently, and 5 always. The scores for items 2 and 5 are flipped. In PD, 1 means 0–1, 2 = 2–4, 3 = 5–7, 4 = 8–10, and 5 = >10 times daily. 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Often, and 5 = Always in ED. Within SW, 1 denotes not at all, 2 a few times, 3 occasionally, 4 quite a little, and 5 a great deal. This scale has been validated for validity and reliability and used in the literature. It demonstrated strong reliability and validity. For the scale, Cronbach's alpha has varied between 0.77 and 0.91 [5]. Cronbach's alpha for this scale in this study has varied from 0.72 to 0.92. 2. The Generalized Self-efficacy Scale [20] was used to measure self-efficacy. The 10-item generalized self-efficacy scale is intended to evaluate positive self-beliefs that are employed to manage a range of life's challenges. The purpose of the scale was to evaluate self-efficacy. They employ the following Likert scale, which goes from 1 to 4: 1 denotes complete falsity, 2 brevity, 3 intermediate truth, and 4 exact truth. The entire scoring range is between 10 and 40. Employees' belief in self-efficacy is stronger when their score is higher on the scale. The validity requirements are well-documented. For instance, this scale has been applied in over a thousand research and has been proven to be useful in a variety of cultural contexts. In fact, it has been translated into thirty languages [20]. This study does not require authorization because the instrument is in the public domain. According to various sources [21,22],

Cronbach alpha varies from 0.75 to 0.94 across several language variations. Once the translation was completed, the Arabic version was used. The general job satisfaction scale was used to measure employee satisfaction [23]. This scale consists of five items with a 5-point rating scale from strongly agree (5) to strongly disagree (1) which reflect respondents' feelings regarding their current employment. A 5-point rating system was used for each item (1 being strongly disagreed and 5 being highly agreed). These five items were: "I find real enjoyment in my work," "I feel fairly well satisfied with my present job," "Most days I am enthusiastic about my work," "Each day of work seems like it will never end," and "I consider my job rather unpleasant" (reverse scored). Prior to summing, two items were reverse-scored. For this scale, the Cronbach's alpha was 0.85 [24]. Cronbach's alpha for this scale in this study was 0.92. The job demand subscales had the following reliability coefficients: PD 0.899 (eight items), ED 0.735 (four items), SW 0.846 (two items), and QD 0.745 (five items). The subscales in our study have the following reliability coefficients: PD.858 (eight items), ED.721 (four items), SW.802 (two items), and QD 0.735 (five items). Pilot testing was conducted using a sample of nurses (n=40) requesting their appraisals for the appropriateness of the translation and its cultural appropriateness.

### Data analysis plan

work demand, work satisfaction, and self-efficacy were described using central tendency (means and medians) and dispersion measures (standard deviation and ranges) in IBM-SPSS Windows (version 24.0). In the literature, normative samples were compared with descriptive statistics. Job demand, job satisfaction, and self-efficacy were tested for connections using the Pearson product-moment correlation coefficient (*r*). Using a two-model multiple hierarchical regression analysis, the moderating effect of SE on the link between job demand and job satisfaction was investigated. Depending on the degree of assessment of the variable, the Pearson coefficient, *t* test, and analysis of variance were employed, as appropriate, to analyze differences in job demand, job satisfaction, and SE linked to nurses' demographic features.

### Results

#### Demographic characteristics of the sample:

Nearly two-thirds (n = 310, 72.6%) of the 427 nurses worked at the central hospital. The study found a greater proportion of female nurses (n = 252, 59%) and their mean age was 31.40 years (SD = 5.08). The average length of time that the participants had worked in the unit was 4.88 (SD = 4.60) years, and their mean experience as nurses was 8.6 years (SD = 5.23). 18.67 (SD = 26.27) patients were cared for by nurses on average per shift. Most nurses (n = 293, 68.6%) held a bachelor's degree (n = 371, 86.9%) and had no prior nursing management experience (n = 346, 81%). The majority of nurses (n = 159, 37.2%) were employed in special care units.

#### Descriptive statistics of the main variables

##### Job demand

According to the investigation (see Table 1), the mean QD score ranged from 9 to 25, with a standard deviation of 2.56, throughout the categories of work demand. The nurses' scores, calculated using the quartile equation, show their QD degree was high. In terms of PD, scores ranged from 8 to 40, with a mean of 22.57 (SD = 6.53). Fifty percent of the nurses had a score of 23 or lower. The quartile equation indicated that nurses' PD levels were moderate. The research revealed that the range of values for ED was 8 to 20, with a mean score of 15.42 (SD = 2.65). Based on the quartile equation, the findings show that nurses' ED levels were high. SW had an average score of 6.62 (SD = 2.24).

##### Job satisfaction

The research (see Table 3.c) revealed that the mean job satisfaction (JS) score for nurses, as determined by the Job Satisfaction Scale, was 14.18 (SD = 5.30), with scores ranging from 5 to 25. Using the quartile equation, the results showed that nurses had a moderate degree of job satisfaction, taking into

account that the possible score range is 5–25, 50% (P50th) of the nurses had a score of 14 or less, and 50% of the nurses had a score of 10 to 19 (P25 to P75).

**Table 1 Descriptive statistics of the main variables (N = 427)**

Variables	M(SD)	P <sub>25</sub>	P <sub>50</sub>	P <sub>75</sub>	Range
Quantitative demand	19.93(2.56)	19	20	21	9-25
Physical demand	22.57(6.53)	18	23	27	8-40
Emotional demand	15.42(2.65)	14	15	18	8-20
Shift work	6.62(2.24)	5	6	8	2-10
Job satisfaction	14.18(5.30)	10	14	19	5-25
Self-efficacy	28.62(6.16)	25	29	34	13-40

##### Self-efficacy

The study (see Table 3.c) revealed that the self-efficacy (SE) ranged from 13 to 40, with a mean score of 28.62 (SD= 6.16). Using the quartile equation, the results showed that nurses had moderate to high levels of self-efficacy, given that the possible score range is 10–40, 50% (P50th) of the nurses had a score of 29 or lower, and 50% of the nurses had a score of 25 to 34 (P25 to P75).

#### The moderation effect of self-efficacy on the relationship between job demand and job satisfaction

Using a two-model multiple hierarchical regression analysis, the moderating effect of SE on the link between job demand and job satisfaction was investigated. Job demand domains were entered in Block 1, and SE was entered in Block 2. The sequence of input was chosen with the understanding that the goal of the study is to ascertain whether the link between job demand and job satisfaction will significantly increase with the addition of SE. Using the literature and the bivariate correlation between the model's variables, we arranged the variables' entries according to their temporally or logically determined priority. This was reinforced by the researchers' assessment of how much the entry sequence would improve the dependent variables' prediction. According to the study, block 1 was statistically significant ( $F_{4,422} = 5.60, P < 0.001$ ), with  $R^2 = 0.05$  and adjusted  $R^2 = 0.04$ . The model's importance suggests that job demand is a key determinant of job satisfaction. According to the  $R^2$  value, changes in employment demand correlate with variations in job satisfaction by 5%. Analysis (Table 4) revealed that only ED and SW were significant predictors of job satisfaction ( $P < 0.05$ ). Domains of job demand were evaluated to find any statistically significant predictors that may have the larger predictive value. According to the research, ED is a significant negative predictor of job satisfaction ( $\beta = -.16$ ), which suggests that ED is likely a risk factor for job satisfaction. This indicates that nurses who score higher in the ED are more likely to be dissatisfied with their jobs. According to the research, there is a substantial negative correlation between SW and job satisfaction ( $\beta = -.12$ ), meaning that nurses scoring higher in the SW category are likelier to have lower job satisfaction scores. Additionally, SW was a risk factor for job satisfaction, with lower job satisfaction levels being linked to higher perceptions of shift work. However, the job demand variable's other domains, PD and QD, did not significantly predict job satisfaction.

$R^2 = .51$  and adjusted  $R^2 = .505$  indicated that the model was statistically significant ( $F_{5,421} = 87.81, p < .001$ ) in Block-2, where self-efficacy was added to assess its moderating influence. The moderation impact of self-efficacy is responsible for 51% of the variation in the connection between job demands and job satisfaction, according to the  $R^2$  value of .51. The degree of relevance and magnitude of  $R^2$  changes value (see Table 2) could be used to explain this. According to the analysis, self-efficacy has accounted for 46% of the variation in the association

between job demands and job satisfaction, with an R2 change of 0.46 and a significant result ( $F_{1,421} = 395.73, p < .001$ ).

**Table 2: Regression examining self-efficacy moderating the relationship between job demands and job satisfaction**

Variables	Block 1		Block 2	
	B	p-value	$\beta$	p-value
Quantitative demand	-.028	.585	-.024	.527
Physical demand	-.001	.980	.016	.656
Emotional demand	-.155	.002	-.186	<.001
Shift work	-.116	.018	-.087	.014
Self-efficacy			.680	<.001
R <sup>2</sup>	.05		.51	
R <sup>2</sup> <sub>adj</sub>	.04		.505	
E	.97		.70	

Additionally, the research demonstrated that increasing self-efficacy had a positive effect on the connection between job demands and job satisfaction, suggesting that raising self-efficacy has mitigated the detrimental effects of job demands on job satisfaction. To clarify, the inclusion of self-efficacy has maintained the inverse association between the job demand and job satisfaction dimensions while also mitigating the negative relationship between the two. As a result, the job demand domains' significance values held steady and increased in statistical significance (lower p-value). See Table 3.

Bivariate correlation was utilized to assess the association and ensure that the relationship between employment demand and SE had no bearing on the model's construction. The research revealed a very low and non-significant bivariate association ( $r = 0.063, P = 0.192$ ) between employment demand and SE. This showed that the relationship between work demand and SE had no significant impact on the regression model, with job demand and job satisfaction belonging to Model I and the SE in Model II.

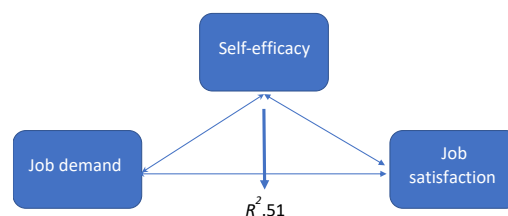
**Table 3: Summary of R<sup>2</sup> Values and R<sup>2</sup> Changes at each step in Hierarchical Regression**

Predictors	R <sup>2</sup>	F	R <sup>2</sup> Change	F Change
Job demands	.05	$F_{4,422}=5.60^{**}$	.05	$F_{4,422}=5.60^{**}$
Self-efficacy	.51	$F_{1,421}=87.81^*$	.46	$F_{1,421}=395.73^*$

*\*\*p value is significant at alpha <.001.*

Using the error of variance to compare the two models in which model one includes job demands and job satisfaction, the error was ( $e = \sqrt{1 - R^2} = \sqrt{1 - .05} = \sqrt{.95} = .97$ ) while the error in variance in model two in which self-efficacy was added to JD-JS relationship was ( $e = \sqrt{1 - R^2} = \sqrt{1 - .51} = \sqrt{.49} = 0.70$ ). Therefore, it is obvious that adding self-efficacy to the model decreased the error of variance from .97 to .70, which indicates that self-efficacy is a significant moderator of JD-JS relationship.

**Figure 1: The moderation effect of self-efficacy on the relationship between Job Demand and Job satisfaction**



## DISCUSSION

### Predictors of job satisfaction

The impact of job demand on nurses' abilities to deliver high-quality care has been highlighted in the literature. Physical discomfort in the workplace has been linked to nurses' perceptions of the demands of their jobs. It has been linked to low productivity, elevated stress levels, increased exhaustion, disengagement, and job dissatisfaction in nurses [8]. Only ED and SW were significant predictors of job satisfaction in this study. The relationship was unfavorable, suggesting that SW and ED are risk factors that raise nurses' dissatisfaction levels. In this particular context, nurses felt that their jobs had a personal impact on them; that is, the tasks, duties, and responsibilities of their jobs emotionally taxed them and adversely affected their emotional stability. As a result, their level of job satisfaction deteriorated.

Overall, the findings agree with previous research that found a negative correlation between emotional job demands and favorable outcomes like well-being [9] and work performance [5]. These findings were likely to impact nurses' perceptions of their overall job satisfaction. Conversely, ED was associated with a higher rate of adverse outcomes, including emotional exhaustion [25], which is also thought to have a detrimental effect on nurses' job satisfaction. Another risk factor against job satisfaction that we found was SW. According to Burke [26], "frequency of working shifts longer than 8 hours, and frequency of working double shifts" (SW) is a domain of job demand addressed in the current study. Overall, the findings are consistent with earlier research (e.g., [27], [28], [6]) that showed a negative correlation between SW and nurses' satisfaction. In their 2015 study, Dall'Orta, Griffiths, Ball, Simon, and Aiken examined the relationship between work satisfaction and shift work hours. They found that registered nurses who worked 12-hour or longer shifts were more likely to express job discontent, intention to quit, and burnout. The study's findings emphasize how important emotional stability is a part of job demands on the level of job satisfaction. Those with higher levels of emotional stability are more apt to enhance their ability to control their satisfaction at work.

The findings of this research also demonstrated that there was no relationship between job satisfaction and the QD and PD domains of job demand. Put otherwise, there is no discernible impact of PD or QD on nurses' job satisfaction. These findings contradict other research that indicates PD is a significant predictor of job satisfaction (e.g., [29]) and that nurses' QD is negatively related and strongly predictive of job satisfaction (e.g., [30], [31]). Most of these research [29] have demonstrated a negative correlation between increasing PD and a number of workplace outcomes, including job satisfaction, work compliance, nurses' health status, and employee well-being. Research has demonstrated that QD and PD are unfavorable indicators of work-related outcomes, including job satisfaction (e.g., [31]). Even though QD was high and PD was modest in our study, we could not discover a meaningful correlation between either measure and work satisfaction. A plausible rationale could be that family caregivers have a noteworthy role in healthcare, specifically in general healthcare settings, in public hospitals. The majority of patients have family caregivers who tend to their physical requirements, relieving the strain on nurses to work rapidly. In some cases, nurses ask family caregivers to stay with hospitalized patients in order to give them physical care. In some cases, nurses ask family caregivers to stay with hospitalized patients in order to provide them with physical care. Therefore, a large portion of the physical care, including QDs like bathing, feeding, personal hygiene, repositioning, lifting, transferring, and assisting patients

with daily activities, will be performed by family caregivers. Therefore, even when these activities were at high (QD) or moderate (PD) levels, nurses may not view them as indicative of job satisfaction.

The findings of this study confirmed the predictive ability and correlation of job demand with job satisfaction, which is consistent with research that has examined the relationship between contentment at work. PD and QD, however, were not significantly correlated with job satisfaction. The findings show that nurses' performance and the standard of care they provided were impacted by opinions regarding the demand for jobs. Job satisfaction among nurses is a sign that while observing, managers and nursing leaders must be conscious of this. Nursing effectiveness and standard of care. Quality care officers and nurse managers If they aim to raise the standard of care, they should think about considering the connected domains of job demand and satisfaction with work due to this factor.

### **Moderating effect of self-efficacy on the relationship between job demand and job satisfaction**

The study discovered that self-efficacy has a positive moderation effect on the JD-JS relationship, which helps explain self-efficacy's moderating role on the link between work demands and job satisfaction. This suggests that the detrimental effects of job demand, ED and SW in particular, on job satisfaction have been mitigated (or buffered) by self-efficacy. Stated differently, in the context of high job demands (ED and SW), nurses with higher levels of self-efficacy reported higher levels of job satisfaction than nurses with lower levels of self-efficacy. We examined the moderating role of self-efficacy on the link between job demands (ED and SW) and job satisfaction in the analysis, which has been referred to as model two. The perception that the work as a principal provided opportunities for personal development (or self-development) was associated both with higher job satisfaction and, indirectly, with lower levels of emotional exhaustion. On the other hand, the significance of job satisfaction of nurses on patients' care, patient satisfaction, patient outcome, and general healthcare delivery cannot be over-emphasized, as employee job satisfaction is essential in the daily life of the workforce. It has been established that low job satisfaction is the main basis of employee turnover among healthcare service workers [32].

As a result, this study addresses one of the unique experiences in nursing research and adds to the body of knowledge in nursing sciences. No prior studies in nursing have examined self-efficacy as a moderator on JD-JS relationship. It deepens our comprehension of how self-efficacy affects the nursing population. It is anticipated that nurses working in public health sectors who directly care for patients will suffer the most. Self-efficacy has been examined in the past as a variable in direct correlation with other variables in nursing studies. For instance, those who have higher levels of self-efficacy are more likely than people with lower levels to take an active stance and put solutions into practice when faced with stressful work situations [33]. Additionally, studies have linked higher levels of self-efficacy to lower intentions of turnover and higher job satisfaction ([33]; [34],[35]). Additionally, the findings showed that nurses' levels of self-efficacy ranged from moderate to high and that there is a positive and significant association ( $r = .68$ ) between self-efficacy and job satisfaction. The favorable impact of SE on the JD-JS relationship is supported by the moderate degree of correlation between SE and JS. Specifically, there is no discernible relationship between SE and any of its domains or work demands. The present study concludes that self-efficacy moderates the negative correlation between job demands (PD and ED) and job satisfaction. Specifically, higher self-efficacy scores among nurses are associated with higher levels of job satisfaction even in the face of high job demands (PD and ED).

### **Study limitation**

One limitation is related to use of self-report format of data which may contribute to response bias. Also the results of the results need to be interpreted cautiously as the data collected from one country which may limit generalizability, while have data from

multiple settings across the Arab work might be more informative. An additional limitation relates to the study's sample, which solely included nurses who provide direct patient care in public hospitals. Hence, in the future, it will be instructive and possibly offer fresh insights to include private hospitals and nurses at various levels of care and management. In addition, Jordanian culture might have a role in making a definition of self-efficacy that might be different within the cultural context, allowing to various forms of interpretation among Jordanian nurses.

### **Conclusion and Implications**

In this study, nurses employed in Jordanian public hospitals were asked to consider the moderating role of self-efficacy in the link between job demand and job satisfaction. The study's conclusions demonstrated a negative correlation between work satisfaction and job demand (ED and SW). This implies that the degree of satisfaction decreases when job demand (ED and SW) increases. Furthermore, this study demonstrated the moderating role of self-efficacy on the relationship between job demand and job satisfaction.

The relationship between job demand and job satisfaction was positively impacted by SE, which also reduced the negative association between the two variables. This suggests that, even in the context of high job demand, nurses with greater SE levels report higher levels of job satisfaction. However, SE decreases this negative relationship, meaning that in the face of high job demand, nurses with high SE have higher job satisfaction. Ultimately, this study offers an innovative theoretical perspective on the relationship between job demand and job satisfaction and adds to the body of knowledge to alleviate the most significant stressor in such a demanding and stressful profession—job demand. The study has implication to nurse manager and nursing staff that they need to have more attention to their sources of job demand and how is it connected to their job satisfaction. There should be enrolled in peer-to-peer support groups, having higher level of self-awareness and self-care programs to counteract the work-related stressors and lower level of job burden and job demand. The study has implications for policymakers, nurse managers, and nursing practice. According to the study, nurses' satisfaction—linked to their personal characteristics, beliefs of their efficacy, and job demand—must correlate to the quality of nursing care and nursing care outcomes. Through reinforcement of their SE, nurse managers can improve the job satisfaction of their staff by following the guidelines provided by this study. The study's findings suggest that nurse managers should put greater resources into using nurses' unique personal qualities as instruments to advance quality enhancement. Additionally, nurse educators must ensure that programs for in-service education and nursing orientation consider how job stress, job satisfaction, and self-efficacy affect the provision of high-quality healthcare. It is necessary to provide nurses with training on stress management, satisfaction with work, and increasing their awareness of self. Nursing curricula must be updated to provide current clinical answers to nurses' problems in the clinical setting because nurse educators must be aware of the challenges facing nursing and nurse education [36].

### **CONFLICT OF INTEREST**

The authors declared no potential conflict of interest with respect to the research, authorship and/or publication of this article.

### **AUTHORSHIP STATEMENT**

MBH conceived and designed, analyzed, and drafted the data and drafted the manuscript. AHM conceived, analyzed, and interpreted the data. MBH and AHM approved the final version of the manuscript.

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