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# JOB RESOURCE AND JOB PERFORMANCE AMONG PHYSICIANS IN THE JORDANIAN HEALTH SECTOR: THE MEDIATING ROLE OF JOB SATISFACTION

**Samer Jibril Qaralleh [A], Noor Fareen Abdul Rahim [B], Christopher Richardson [C]**

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**ABSTRACT**

**Purpose**: Individuals, groups, and organizations are all affected by job performance. Many challenges face the organization such as job performance across the globe as well as in Jordan. The present study aims to investigate how job resources affect a hospital physician's performance, as well as the role of job satisfaction in mediating these relationships.

**Theoretical framework:** The key idea behind this research will be the focus on job demands-resources theory (JD-R). However, a lack of studies that explore the JDR, and job performance in the Jordan context.

**methodology:** The information was gathered through a questionnaire of 346 physicians who work at Jordan's Ministry of Health. In this paper, structural equation modeling (SEM) was used to assess and evaluate the offered hypotheses.

**Findings:** The study found that five core elements of job resources (skill variety, task identity, performance feedback, autonomy, and job security) have a significant positive correlation with job satisfaction, while one core element (task significance) was insignificant. Furthermore, job resources were shown to have a significant indirect relationship with job performance, with job satisfaction acting as a mediator.

**Research, Practical & Social implications:** The findings of this paper show that the JDR can accurately forecast physicians. The findings can be used as a foundation for future research in this field. The findings of the study will help the Jordanian government design policies to support and encourage physicians in the current work environment.

**Originality:** This paper is a ground-breaking effort to see if job demands resources may be used as a theoretical framework to predict physician performance.

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[A] *PhD student at Graduate School of Business,Universiti Sains Malaysia, Penang, Malaysia, Karak (Jordan), Almshirfa 01000. E-mail: samerjq@gmail.com Orcid: https://orcid.org/0000-0002-7354-7096*
[B] *Senior Lecturer Graduate School of Business Universiti Sains Malaysia, Universiti Sains Malaysia, Penang, Malaysia, 11800 Gelugor, Penang, Malaysia.E-mail: noorfareen@usm.my*
*Orcid: https://orcid.org/0000-0001-8282-9741*
[C] *Deputy Research, Innovation & Industry Community Engagement Graduate School of Business Universiti Sains Malaysia, Universiti Sains Malaysia, Penang, Malaysia,11800 Gelugor, Penang, Malaysia*
*E-mail: christopher.richardson@usm.my Orcid: https://orcid.org/0000-0002-0371-6085*

## RECURSOS DE EMPREGO E DESEMPENHO NO TRABALHO ENTRE MÉDICOS NO SETOR DE SAÚDE DA JORDÂNIA: O PAPEL MEDIADOR DA SATISFAÇÃO NO TRABALHO

**RESUMO**

**Objetivo**: Indivíduos, grupos e organizações são todos afetados pelo desempenho no trabalho. Muitos desafios enfrentam a organização, como o desempenho no trabalho em todo o mundo, bem como na Jordânia. O presente estudo tem como objetivo investigar como os recursos do trabalho afetam o desempenho do médico hospitalar, bem como o papel da satisfação no trabalho na mediação dessas relações.

**Referencial teórico**: A ideia-chave por trás desta pesquisa será o foco nas demandas de trabalho - teoria dos recursos (JDR). No entanto, a falta de estudos que exploram o JDR e o desempenho no trabalho no contexto da Jordânia.

**metodologia**: As informações foram coletadas por meio de um questionário de 346 médicos que trabalham no Ministério da Saúde da Jordânia. Neste trabalho, foi utilizada a modelagem de equações estruturais (SEM) para avaliar e avaliar as hipóteses oferecidas.

**Resultados**: O estudo descobriu que cinco elementos centrais dos recursos do trabalho (variedade de habilidades, identidade da tarefa, feedback de desempenho, autonomia e segurança no trabalho) têm uma correlação positiva significativa com a satisfação no trabalho, enquanto um elemento central (significado da tarefa) foi insignificante. Além disso, os recursos do trabalho demonstraram ter uma relação indireta significativa com o desempenho no trabalho, com a satisfação no trabalho atuando como mediador.

**Pesquisa, implicações práticas e sociais**: Os resultados deste artigo mostram que o JDR pode prever com precisão os médicos. As descobertas podem ser usadas como base para pesquisas futuras neste campo. Os resultados do estudo ajudarão o governo Jordaniano a projetar políticas para apoiar e incentivar os médicos no ambiente de trabalho atual.

**Originalidade/valor**: Este artigo é um esforço inovador para ver se o trabalho exige recursos pode ser usado como um quadro teórico para prever o desempenho do médico.

**Palavras-chave:** Recursos de trabalho, Satisfação no trabalho, Desempenho no trabalho, Médicos, Jordânia.

## RECURSOS LABORALES Y RENDIMIENTO LABORAL DE LOS MÉDICOS DEL SECTOR SANITARIO JORDANO: EL PAPEL MEDIADOR DE LA SATISFACCIÓN LABORAL

**RESUMEN**

**Finalidad:** El rendimiento laboral afecta a las personas, los grupos y las organizaciones. En todo el mundo, así como en Jordania, son muchos los retos a los que se enfrentan las organizaciones, como el rendimiento laboral. El presente estudio pretende investigar cómo afectan los recursos laborales al rendimiento de los médicos de hospital, así como el papel de la satisfacción laboral en la mediación de estas relaciones.

**Marco teórico:** La idea clave de esta investigación se centrará en la teoría de las demandas de trabajo - recursos (JDR). Sin embargo, la falta de estudios que exploren el JDR y el rendimiento laboral en el contexto de Jordania.

Metodología: Se recopiló información mediante un cuestionario dirigido a 346 médicos que trabajaban en el Ministerio de Sanidad jordano. En este trabajo se utilizó el modelo de ecuaciones estructurales (SEM) para evaluar y valorar las hipótesis planteadas.

**Resultados**: El estudio concluyó que cinco elementos básicos de los recursos del puesto de trabajo (variedad de competencias, identidad de la tarea, retroalimentación del rendimiento, autonomía y seguridad en el puesto de trabajo) tienen una correlación positiva significativa con la satisfacción laboral, mientras que un elemento básico (significado de la tarea) resultó insignificante. Además, se ha demostrado que los recursos laborales tienen una relación indirecta significativa con el rendimiento laboral, actuando la satisfacción laboral como mediadora.

**Consecuencias para la investigación, la práctica y la sociedad:** Los resultados de este trabajo demuestran que el JDR puede predecir con exactitud los médicos. Los resultados pueden servir de base para futuras investigaciones

en este campo. Los resultados del estudio ayudarán al gobierno jordano a diseñar políticas de apoyo y estímulo a los médicos en el entorno laboral actual.

**Originalidad/valor:** Este artículo es un esfuerzo innovador para ver si los recursos de las demandas de trabajo pueden utilizarse como marco teórico para predecir el rendimiento de los médicos.

**Palabras clave:** Recursos laborales, Satisfacción laboral, Rendimiento laboral, Médicos, Jordania.

## INTRODUCTION

In order to thrive and grow in the ever-changing hospital climate, job performance must be prioritized at the top of any health sector's agenda. Motowildo, Borman and Schmit (1997) illustrate a theory of job performance relates to an individual's assessment, behavioral, and environmental performance over time, as well as multiple elements including contextual and task performance. Job performance is “a behavior and a distinct entity connected to the success and productivity of a certain job's outcomes” (Jacobs, Hellman, Wuest & Markowitz, 2013).

In health care sector studies, there is not a lot of consideration has been given to the issues of job performance among the physicians at hospitals. Even though, physicians’ underperformance carries a danger to patient health (Price et al., 2018). The number of studies on physician performance is relatively low.

Health problems are caused by both young and experienced physicians. Each year, hundreds of people die as a consequence of medical errors. For instance, misdiagnosis, delayed diagnosis, unnecessary treatments, tests, and procedures, drug errors, missing warning signs, and mistakes in the operating room are some of the most common errors that may occur in hospitals (Khalifeh, 2021). For hospital physicians, the poor performance of a medical doctor is linked to patient safety (Umrani et al., 2019). Research by Alqadire and Alkhalaileh (2017) showed that most of the Jordanian participants (58.8%) were dissatisfied with the healthcare services in the Hashemite Kingdom of Jordan. Members were mostly dissatisfied with the following: “Meeting and consideration of their health status, the information about possible side effects, information provision including family in the direct-patient care process, communication with administrative workers and the time they have given to them by the physicians” (Alqadire & Alkhalaileh, 2017, p. 5). In the aforementioned study, the previous aspects are under the multi-dimensions of individual work performance, for example task and contextual. Thus, the purpose of this research will extend the field of knowledge on job performance at the individual level by investigating issues of job performance among physicians in the public health sector.

In Jordan, physicians in the health sector are facing more than their ability to withstand the pressures of work, long hours of work, and limited income, especially in the government sector. Over the years, Jordanian physicians stated that a deterioration in the public health sector has resulted from consecutive health policies and poor resource management. In addition, the growing number of patients treated has become a specialty clinic in government hospitals that treated dozens of times the recommended numbers globally. Generally, a lot of changes have recently been made in the healthcare sector. Government policies, system changes, and budget cuts have all had a significant influence on the day-to-day job of health care workers (Bronkhorst, 2015). Research by the Centre for Strategic Studies showed that Jordan has retracted some health indicators due to the sudden increase in the population resulting from forced migrations and crises in the surrounding countries. A set of challenges confronting Jordan's health sector, including challenges related to high job demands with limited resources, health policies; financing; health spending; the health insurance system; and human health cadres; these factors contribute to poor citizen trust in the quality and efficiency of health-care services delivered by the health-care system, as well as high turnover rates (Khatatbeh et al., 2015) and workplace violence (Al-Shiyab & Ababneh, 2018; Darawad et al., 2015).In addition, Jordanian physicians are unsatisfied with a variety of personal, organizational, work-related, and socio-cultural reasons (Khatatbeh et al., 2015) which leads to poor performance of workers in the health sector (Ahmed, 2012).

Empirically, according to previous studies, there is a link among job resources and positive outcomes such as performance, job satisfaction, and work engagement (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001) Furthermore, previous studies have discovered a link between job resources such as feedback, task identity, autonomy, skill variety, and task significance with performance (Ali et al., 2014; Andrew, Haris, Zakariah, & Zekaria, 2016). However, some studies found that some of the job resource core elements are insignificant with a positive outcome such as job performance (Nakagawa et al., 2014). While, Nadhir and Puteh,(2017) found two out of five job resource task identity and autonomy insignificant towards employee engagement. Hence, empirical field studies should be consolidated in order to offer an overview of the most often investigated resources, investigate whether they are related to well-being and performance, and comprehend possible mediators of resource-well-being and performance interactions (Demerouti et al., 2001; Nielsen et al., 2017).

Job satisfaction may make an important effects of job resources and job performance. Despite the fact that empirical discoveries have helped us better understand these interactions, there are limited studies on the interaction among job resources and job performance mediated

by job satisfaction (Schaufeli, 2015). Nevertheless, there is yet unclear support for a direct association among the factors. The question of whether the physicians' proposed job resources would positively or negatively impact their job satisfaction, which would finally lead to job performance, is still unsolved (Van Wingerden et al., 2016). Hence, this investigation aims to explore the function of job satisfaction as a mediator in the interaction among job resources and job performance among the physician's domains.

**Literature Gap**

Schaufeli ( 2015) suggests more studies about job satisfaction as a motivational process-well-being-. In addition, in healthcare, there have been few research that have used the job demands-resources theory to examine job satisfaction and job performance (Van Wingerden et al., 2016). However, In Jordan's empirical studies, a few studies are focusing on other professions in the health sector, such as physicians, pharmacists, and physiotherapists (Alfuqaha & Alshra'ah, 2018). Hence, the current study will try to fit a gap from the practical, empirical, and theoretical sides of literature. First, the present investigation will explore the impact of job resources on job performance mediated by job satisfaction as a motivational process. Moreover, the present study will focus on other physicians in the health sector. Theoretically, a lack of studies that explore the job resource model, and job performance in the Jordan context. Globally, a lack of research that explore the level of job performance among physicians in the health sector field.

The following are the study's questions:

1. Is there an association between job resources and job satisfaction?
2. Is there an association between job satisfaction and job performance?
3. Is there a link between job resources and job performance that is mediated by job satisfaction?

## LITERATURE REVIEW

### Job Performance

Over the past 5 to 10 years, job performance has received significant research attention (Sonnentag & Volmer, 2008) to learn about the connections between job performance, people, and factors of the situation to better understand effectiveness in jobs (Al-Omari & Okasheh, 2017). Performance is "defined as noticeable things that people do as behaviors that are related to the organization's goals" (Campbell, Mchenry, & wise,1990). According to Motowildo, Borman and Schmit (1997) noted that performance, behavior, and results are not exactly the

same things. Performance is behavior with a component of the evaluation. Behavior is what people do in the workplace. behavior that can be assessed for individual or organizational purposes as positive or negative. However, there is not a single component, result, or anything else that can be linked to job performance (Campbell et al., 1990). Hence, researchers agreed that performance should be regarded as a multi-dimensional approach (Campbell et al., 1990; McCloy, Campbell, & Cudeck, 1994).

In the past, both practically and theoretically, differentiate variables between individual and situation-specific predictors (Sonnentag & Volmer, 2008). Campbell et al. (1970) looked at eight elements that impact job performance across the board: task-specific behavior, communication, non-task-specific behavior, assistance to and from colleagues, effort, personal discipline, leadership and supervision, and management. The process and result of performance can be differentiated. Furthermore, one can differentiate between tasks, contextual and adaptive performance and each one is multi-dimensional in its own right (Sonnentag & Volmer, 2008). Markedly, Carlos and Rodrigues (2016) task and context are two dimensions that have been marked. To explain, organizational skills, work knowledge, persistent effort, collaboration, personal qualities, organizational consciousness, and interpersonal and relationship abilities are eight sub-dimensions of job performance to describe. In the healthcare sector, Greenslade and Jimmieson (2007) set four task performance sub-dimensions and four contextual performance sub-dimensions were created from the predefined contextual and task performance categories.

Practically, task performance was identified as a critical feature of job performance in all circumstances (Koopmans et al., 2011). The fulfillment of the requirements that are part of the employer/employee contract is referred to as task performance (Sonnentag & Volmer, 2008).It has a direct connection to the technical core of the organization either by technical processes or through the servicing and maintenance of its technical requirements (Motowildo et al., 1997). Hence, Greenslade and Jimmieson (2007) mention that provision of support, technical care, provision of information, and coordination of care are all components of task performance.

Contextual performance is “a type of attitude such as volunteering to carry out extra work, to help others solve difficult tasks, to maintain enthusiasm at work, to cooperate with others when needed, to share critical resources and information for organizational development, to comply and support organizational choices for better change” (Coleman & Borman, 2000; Pradhan & Jena, 2017). Motowildo (1997) gives some instances of contextual performance actions, like cooperating and helping individuals.; processes and organizational norms, even if they are inconvenient to one's nature; supporting, promoting, and defending organizational

goals; offering to carry out task activities and persevering with additional zeal when necessary to fulfil one's own work effectively. Hence, Greenslade and Jimmieson (2007) mention that job-task support, interpersonal support, volunteering for extra responsibilities, and compliance are all examples of contextual performance factors.

**Job Resource**

Job resources are defined as "the extent to which the work offers the assets or talents of particular workers" (Rothmann, Mostert, & Strydom, 2006,p. 77). Job resources are task identity, skill variety, autonomy, task significance, performance feedback, and job security (Bakker & Demerouti, 2017; Demerouti et al., 2001).From an empirical perspective, previous studies have found a link among job resources with performance, or work engagement (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001) Additionally, some previous research has discovered a link between employment resources such as feedback, identity, autonomy, skill variety, and task significance with job performance (Ali et al., 2014; Andrew, Haris, Zakariah, & Zekaria, 2016). However, some other studies found that some job resource core elements are insignificant with a positive outcome such as job performance (Nakagawa et al., 2014). While, Nadhir and Puteh,(2017) found two out of five job resource task identity and autonomy insignificant towards employee engagement, while one core element of task identity is insignificant towards work engagement.

**Job Satisfaction**

Today, job satisfaction is one of the most difficult subjects to discuss (Aziri, 2011). A worker's sense of achievement and success on the job has been termed job satisfaction. It is frequently regarded to be intimately linked to both performance and improved well-being. Satisfaction "is the key ingredient that leads to recognition, income, promotion, and the achievement of other goals that lead to a feeling of fulfillment" (Kaliski,2007). In addition, job satisfaction may be described as "a positive or negative evaluation one makes about one's job or job situation" (Weiss & Merlo, 2015,p. 833). According to Lawler and Porter (1967), job satisfaction is important for any organization to reduce absenteeism and turnover. In addition, it is a consistent association with job performance. The goal of job satisfaction and dissatisfaction is the obvious association among what one expects from one's career and what one regards as a contribution or entailing (Locke, 1969). Levels of satisfaction can differ significantly from one job to another, and these, in turn, may differ from the general sensation of job satisfaction of an employee. Hence, a person could be pleased with several areas of his

or her career but be unsatisfied with the whole job (Faragher et al., 2005). However, a variety of factors impact job satisfaction, including the aspects of the work, promotion possibilities, compensation, work teams, management, and working environment (Aziri, 2011).

Job resources and satisfaction had concentrated on a positive line (Bakker & Demerouti, 2007, 2014; Bakker & Demerouti, 2017; Demerouti et al., 2001). There is a considerable association between job resources and work satisfaction (Hackman & Oldham, 1975). Similarly, there is a significant and positive influence of job resources such as feedback, task identity, autonomy, skill variety, and task significance, on job satisfaction (Ali et al., 2014; Andrew, Haris, Zakariah, & Zekaria, 2016).

There has not been much research on the function of work satisfaction as a mediator in the link among job resources and job performance. One exception is a study by Ferreira, Martinez, Lamelas, and Rodrigues (2017) discovered the association between task significance, task identity, and negative outcomes such as turnover intentions fully mediated by job satisfaction (Ferreira et al., 2017).On the other hand, About 150 workers in Pakistan's FMCG business discovered that job resources and job performance are mediated by job satisfaction (Ali & Zia-ur-Rehman, 2014).

Although there are several previous studies on job satisfaction as a mediator. However, there are still a few studies that have explored the effect of satisfaction as a mediator among job resources and job performance. As a result, this provides an opportunity to contribute theoretically by studying the effect of satisfaction as a mediator between resources and job performance.

**Research hypotheses and framework**

The previous study has found a link between the work's job resource level, feedback, task identity, autonomy, skill variety, and task significance and positive outcome such as job performance (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001; Grigsby, 2013; Schaufeli & Taris, 2014). Previous research has shown that there is an impact between job resources and job satisfaction (Chandraiah et al., 2003; De Cuyper & De Witte, 2006; Dwyer & Ganster, 1991; Kayastha, 2012; Malik et al., 2011; Rehman et al., 2014).

There is a significant connection among job resources with job satisfaction (Hackman & Oldham, 1975). Similarly, there is a significant and positive influence of job resources such as feedback, task identity, autonomy, skill variety, and task significance on job satisfaction (Ali et al., 2014; Andrew, Haris, Zakariah, & Zekaria, 2016; Beehr, Jex, Stacy, & Murray, 2000;

Nahrgang et al., 2011b; Said & Munap, 2010). The hypotheses that follow indicate the specific are:

H1a: Autonomy has a positive and significant relationship with job satisfaction among Jordanian physicians.

H1b: Skill variety has a positive and significant relationship with job satisfaction among Jordanian physicians.

H1c: Task significance has a positive and significant relationship with job satisfaction among Jordanian physicians.

H1d: Task identity has a positive and significant relationship with job satisfaction among Jordanian physicians.

H1e: Feedback has a positive and significant relationship with job satisfaction among Jordanian physicians.

H1f: Job security has a positive and significant relationship with job satisfaction among Jordanian physicians.

Previous research has found a connection among employee job satisfaction and job performance (Christen et al., 2006; Inuwa, 2016; Mira et al., 2019; Petty et al., 1984). The following hypotheses are developed:

H2a: Job satisfaction has a positive and significant related to task performance among Jordanian physicians.

H2b: Job satisfaction has a positive and significant related to contextual performance among Jordanian physicians.

There has been few research on job satisfaction as a mediator in the association among job resources and job performance. In other contexts, it has been proven that job satisfaction mediates the association among organizational and personal resources, as well as well-being, stress (Desrumaux et al., 2015), job resource, and work engagement (Van Wingerden et al., 2018). For instance, in the link among job insecurity and emotional organizational commitment, job satisfaction acts as a mediator in a study conducted by Buitendach, De Witte, Leuven, Buitendach, and De Witte (2005) on 178 employees working in a parastatal in Gauteng.

H3a: Job satisfaction mediates the association between autonomy and task performance among Jordanian physicians.

H3b: Job satisfaction mediates the link between skill variety and task performance among Jordanian physicians.

H3c: Job satisfaction mediates the association between task significance and task performance among Jordanian physicians.

H3d: Job satisfaction mediates the association between task identity and task performance among Jordanian physicians.

H3e: Job satisfaction mediates the association between job feedback and task performance among Jordanian physicians.

H3f: Job satisfaction mediates the association between job security and task performance among Jordanian physicians.

H3g: Job satisfaction mediates the association between autonomy and contextual performance among Jordanian physicians.

H3h: Job satisfaction mediates the association between skill variety and contextual performance among Jordanian physicians.

H3i: Job satisfaction mediates the association between task significance and contextual performance among Jordanian physicians.

H3j: Job satisfaction mediates the association between task identity and contextual performance among Jordanian physicians.

H3k: Job satisfaction mediates the association between feedback and contextual performance among Jordanian physicians.

H3l: Job satisfaction mediates the association between job security and contextual performance among Jordanian physicians.

Figure 2.1: A research framework


**Underpinning Theory**

The main theory behind this research discussed in this research will be the focus on job demands-resources theory (JD-R). From a theory perspective, motivation positively affects performance while stress reduces performance. However, working under stress has a negative

impact, while motivation might help you focus on job activities and achieve your goals. In addition, employees that are engaged have a lot of energy and excitement for their jobs. In contrast, employees who are fatigued or have health problems do not have the energy to attain their job objectives (Bakker & Demerouti, 2017). For example, job demands-resources studies have consistently demonstrated that employees perform best in the workplace that association challenges job resources with job demands for the reason that these environments facilitate their commitment to work (Bakker & Demerouti, 2007, 2014; Schaufeli & Taris, 2014; Van Wingerden et al., 2016).

## METHOD

The current research proposed a quantitative methods approach. The initial data for this study was gathered by sending a questionnaire to individual physicians at the hospital. Respondents' judgments of job resources such as skill variety, task identity, autonomy, task significance, and performance feedback serve as the foundation for studying their effect on job satisfaction and job performance. As a result, it is reasonable to employ individual variables as an analytical unit to evaluate all of the variables provided in the study framework.

In this research, the general population comprises physicians who work in public hospitals run by Jordan's Ministry of Health. there are 32 public hospitals in Jordan, divided into three zones (North, Middle, and South), with a total of 3488 physicians on staff (Ministry of Health – Jordan, 2019). In 2018, an indicator of physicians per 10000 citizens reached around 19.8% (Jordan Figures,2018). In the present research, the sample size is 346 for a population of 3488 physicians (Krejcie & Morgan, 1970). The type of sample design was probability. Therefore, the five most popular complicated probability sampling designs are used in probability sampling: stratified random, cluster sampling, simple random, systematic sampling, and multi-stage sampling (Sekaran, 2003). Hence, three types of sample techniques avoid because of two reasons. First, it will be difficult to find the list of names of the physicians working in public hospitals in Jordan. Simple random and stratified random because of the need for names of all population members in those types. Second, in systematic sampling, there is no equal opportunity for all members of the population to be chosen.

Third, it is the distribution of hospitals in the geographical area of Jordan, the target population consists of 3657 physicians at 32 hospitals and ten primary centers in Jordan's three regions, all of which are overseen by the Ministry of Health. Under those conditions, the researcher finds that the best type of technique is the cluster sampling method because groups intact, not individuals, are randomly selected (Gay et al., 2012).

**Measures**

Greenslade and Jimmieson (2007) created and validated a new scale of job performance for healthcare. a number of 41 items were utilized to assess job performance, with 23 of them are using to evaluate task performance. In contrast, to evaluate contextual performance, 18 components are used. However, ratings for task performance were provided on a five-point Likert scale ranging from (1) "much below average" to (5) "much above average". Such as "Explaining to patients what to expect when they leave the hospital". In contrast, contextual performance was a five-point Likert scale starting from (1) "not at all" to (5) "a great deal". For example, "Taking extra time to respond to a family's needs".

The extent to which the work offers individual workers assets or opportunities is addressed by job resources (Rothmann, Mostert, & Strydom, 2006). However, job resources have an external motivating function, as they are willing to make compensatory efforts to reduce the demand for employment and to promote achieving objectives (Schaufeli & Taris, 2014). Instances of job resources are feedback, identity, autonomy, skill variety, task significance, and job security. Job feedback and job significance scale consist of three items; "After I finish a task, I know whether I performed it well" while job significance such as "This job is important in that the results of my work can significantly affect other peoples' ability to do their work". They adapted from Hacckman and Oldham, (1974). Moreover, task identity and job security were measured on a three-point scale. For example, task identity "this job generally provides me the chance to finish the pieces of work I begin" (Hacckman & Oldham, 1974). As well as job security "I feel that with the opportunities given with this job, I have a sound future" (McKnight et al., 2009) Finally, skill variety was measured on a four-point scale such as "My job requires me to do many different things as work, using a variety of my skills and talents". and "This job requires me to use several complex or high-level skills" (Richard & Mitle, 1974). Hence, all dimensions were evaluated by utilizing a 5-point Likert scale, whereby, (1) "strongly disagree", and (5) "strongly agree".

Job satisfaction acts as a mediator. It was measured on a five-point rating scale (1 = "strongly disagree", and 5 "strongly agree"). It was assessed using 4 items of the scale adapted from (Sexton et al., 2006). For example, "This hospital is a good place to work. I am proud to work at this hospital".

Questions for all dimensions are evaluated by using a 5-point Likert scale and will analyze by using Smart-PLS software. Table 1 offers full descriptive statistics on the participants' demographic characteristics. Gender, age, the total number of years working as a physician, and marital status were among the characteristics evaluated.

## FINDINGS

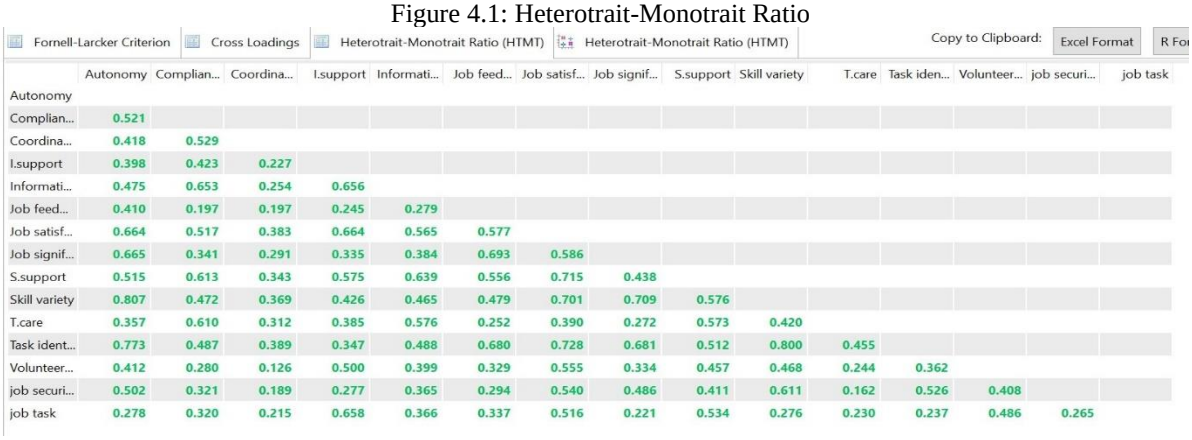
This study's data was not multivariate normal. It encourages the use of non-parametric techniques such as PLS-SEM (Smart-PLS) (Hair. et al., 2017). In the current investigation, Harman's Single Factor test was used to screen for Common Method Bias. It is done by looking at the results of the exploratory component analysis and seeing if the first extracted component accounts for more than half of the variation (Aguirre-Urreta & Hu, 2019). Hence, Harman's single factor was 16.849. In this data, there is no concern with the CMB as the total variance retrieved by one factor is 16.849% and less than 50%.

### Measurement Model

The measurement models are examined first in the analysis of PLS-SEM data (Hair et al., 2019). All of the factors measured in this research such as job satisfaction, job resources, and job performance are reflective. Furthermore, the indicator reliability, internal consistency reliability, composite reliability, convergent validity, and discriminant validity were all examined as part of the measurement model evaluation as suggested by Ringle et al., (2020), and Hair et al., (2019). Hence, some item measurements are estimated through convergent validity. For instance, factor loadings, composite reliability (CR), and average variance extracted (AVE) (Ringle et al., 2020). The value of outer loading is> 0.5 (Chin, 1998; Henseler et al., 2009; Hulland, 1999). The abbreviation for AVE should be 0.5 or higher. Regarding this, by determining the main loading, 0.5 was used in this study. In the current research, because their loading was less than 0.5, five items were deleted (JS4, TP9, TP8, CP9, CP16). Table 1.1 shows the measures of internal consistency.

Discriminant Validity “is the extent to which a construct is truly distinct from other constructs by empirical standards” (Hair et al., 2016, p. 138). When assessing discriminant validity, many models focused on the Fornell-Larcker criteria and cross-loadings. However, these criteria are very poor (Hair et al., 2016). Hence, Ringle et al., (2020) suggest that heterotrait-monotrait ratio criteria should be used by researchers. In PLS structural equation modeling, higher HTMT readings imply that discriminant validity is a problem. Hence, HTMT< 0.90, for concepts that are comparable. HTMT < 0.85 For concepts that different constructs (Hair, 2009; Hair et al., 2019; Ringle et al., 2020). This strategy was adopted by the researcher. The present study’s HTMT values are all less than 0.90. The results show that the HTMT criteria were satisfied in this study. See figure 1

Figure 4.1: Heterotrait-Monotrait Ratio



Fornell-Larcker Criterion | Cross Loadings | Heterotrait-Monotrait Ratio (HTMT) | Heterotrait-Monotrait Ratio (HTMT) | Copy to Clipboard: Excel Format | R Fo

| | Autonomy | Complian... | Coordina... | I.support | Informati... | Job feed... | Job satisf... | Job signif... | S.support | Skill variety | T.care | Task iden... | Volunteer... | job securi... | job task |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autonomy | | | | | | | | | | | | | | | |
| Complian... | 0.521 | | | | | | | | | | | | | | |
| Coordina... | 0.418 | 0.529 | | | | | | | | | | | | | |
| I.support | 0.398 | 0.423 | 0.227 | | | | | | | | | | | | |
| Informati... | 0.475 | 0.653 | 0.254 | 0.656 | | | | | | | | | | | |
| Job feed... | 0.410 | 0.197 | 0.197 | 0.245 | 0.279 | | | | | | | | | | |
| Job satisf... | 0.664 | 0.517 | 0.383 | 0.664 | 0.565 | 0.577 | | | | | | | | | |
| Job signif... | 0.665 | 0.341 | 0.291 | 0.335 | 0.384 | 0.693 | 0.586 | | | | | | | | |
| S.support | 0.515 | 0.613 | 0.343 | 0.575 | 0.639 | 0.556 | 0.715 | 0.438 | | | | | | | |
| Skill variety | 0.807 | 0.472 | 0.369 | 0.426 | 0.465 | 0.479 | 0.701 | 0.709 | 0.576 | | | | | | |
| T.care | 0.357 | 0.610 | 0.312 | 0.385 | 0.576 | 0.252 | 0.390 | 0.272 | 0.573 | 0.420 | | | | | |
| Task ident... | 0.773 | 0.487 | 0.389 | 0.347 | 0.488 | 0.680 | 0.728 | 0.681 | 0.512 | 0.800 | 0.455 | | | | |
| Volunteer... | 0.412 | 0.280 | 0.126 | 0.500 | 0.399 | 0.329 | 0.555 | 0.334 | 0.457 | 0.468 | 0.244 | 0.362 | | | |
| job securi... | 0.502 | 0.321 | 0.189 | 0.277 | 0.365 | 0.294 | 0.540 | 0.486 | 0.411 | 0.611 | 0.162 | 0.526 | 0.408 | | |
| job task | 0.278 | 0.320 | 0.215 | 0.658 | 0.366 | 0.337 | 0.516 | 0.221 | 0.534 | 0.276 | 0.230 | 0.237 | 0.486 | 0.265 | |

Table 1: Demographics

| Description | Classification | Frequency | Percentage |
|---|---|---|---|
| **Gender** | Male | 299 | 75 |
| | Female | 97 | 24.5 |
| **Age** | 25 years or below | 3 | 0.8 |
| | 26-30 years | 115 | 29 |
| | 31-35 years | 164 | 41.4 |
| | 36-40 years | 88 | 22.2 |
| | More than 35 years | 26 | 6,6 |
| **Total number of years working as a physician** | 6 months to one year | 21 | 5.2 |
| | 2 years to 5 years | 103 | 26 |
| | 6-10 years | 131 | 33.1 |
| | 11-15 years | 119 | 30.1 |
| | more than 15 years | 22 | 5.6 |
| **Medical Staff:** | General Practitioner | 100 | 25.3 |
| | Resident Doctor | 133 | 33.6 |
| | Qualified Resident | 115 | 29 |
| | Specialist | 48 | 12.1 |
| **Marital Status** | Single | 136 | 34.3 |
| | Married | 260 | 65.7 |

Table 1.1: Factor loadings, (AVE), and CR

| 3rd Order Construct | 2nd Order Construct | 1st Order Construct | Items | Standardized factor loading >0.5 or preferably >0.7 | AVE (>0.5) | CR (>0.7) |
|---|---|---|---|---|---|---|
| | Job Resource | Autonomy | AUT1 | 0.74 | 0.61 | 0.86 |
| | | | AUT2 | 0.82 | | |
| | | | AUT3 | 0.82 | | |
| | | | AUT4 | 0.74 | | |
| | | Skill Variety | SV1 | 0.77 | 0.70 | 0.90 |
| | | | SV2 | 0.84 | | |
| | | | SV3 | 0.86 | | |
| | | | SV4 | 0.85 | | |
| | | Job Security | Jsec1 | 0.83 | 0.75 | 0.90 |
| | | | Jsec2 | 0.89 | | |
| | | | Jsec3 | 0.86 | | |
| | | Job Significance | Jsig1 | 0.77 | 0.65 | 0.85 |
| | | | Jsig2 | 0.83 | | |
| | | | Jsig3 | 0.82 | | |
| | | Job Feedback | JF1 | 0.79 | 0.62 | 0.83 |
| | | | JF2 | 0.77 | | |
| | | | JF3 | 0.80 | | |
| | | Task Identity | TI1 | 0.72 | 0.63 | 0.83 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | TI2 | 0.85 | | |
| | | | TI3 | 0.80 | | |
| | | Job satisfaction | JS1 | 0.89 | 0.76 | 0.90 |
| | | | JS2 | 0.83 | | |
| | | | JS3 | 0.90 | | |
| **Job Performance** | Task Performance | | | | 0.52 | 0.81 |
| | | Information | TP1 | 0.77 | 0.53 | 0.88 |
| | | | TP2 | 0.78 | | |
| | | | TP3 | 0.77 | | |
| | | | TP4 | 0.72 | | |
| | | | TP5 | 0.67 | | |
| | | | TP6 | 0.65 | | |
| | | | TP7 | 0.72 | | |
| | | Coordination of care | TP8 | 0.73 | 0.66 | 0.85 |
| | | | TP10 | 0.85 | | |
| | | | TP11 | 0.82 | | |
| | | | TP12 | 0.82 | | |
| | | Social support | TP13 | 0.74 | 0.50 | 0.83 |
| | | | TP14 | 0.74 | | |
| | | | TP15 | 0.81 | | |
| | | | TP16 | 0.61 | | |
| | | | TP17 | 0.61 | | |
| | | Technical care | TP18 | 0.73 | 0.57 | 0.84 |
| | | | TP19 | 0.80 | | |
| | | | TP20 | 0.69 | | |
| | | | TP21 | 0.78 | | |
| | Contextual Performance | | | | 0.51 | 0.80 |
| | | Interpersonal support | CP1 | 0.75 | 0.53 | 0.87 |
| | | | CP2 | 0.75 | | |
| | | | CP3 | 0.64 | | |
| | | | CP4 | 0.80 | | |
| | | | CP5 | 0.73 | | |
| | | | CP6 | 0.67 | | |
| | | Job-task support | CP7 | 0.91 | 0.71 | 0.83 |
| | | | CP8 | 0.77 | | |
| | | Compliance | CP10 | 0.84 | 0.66 | 0.85 |
| | | | CP11 | 0.78 | | |
| | | | CP12 | 0.81 | | |
| | | Volunteering for additional duties | CP13 | 0.78 | 0.75 | 0.92 |
| | | | CP14 | 0.87 | | |
| | | | CP15 | 0.91 | | |

## Structural Model

The structural model is evaluated as the next stage in evaluating PLS-SEM data (Hair et al., 2019). The initial step in evaluating the structural model is to identify collinearity issues (Hair et al., 2019; Ringle et al., 2020).

To detect multicollinearity, the variance inflation factor (VIF) is more typically utilized (Sekaran & Bougie, 2016). VIF is typically used for assessing the collinearity of the formative variables (Hair et al., 2019). Collinearity issues are indicated by VIF scores of 5 or above (Hair et al., 2019). However, a common cut-off value is a VIF of 10 (Sekaran & Bougie, 2016). To ensure that it does not bias regression findings, the collinearity must be checked (Hair et al.,

2019). The variance inflation factor of 5 to 10 suggests a significant degree of association, which might be problematic (Akinwande et al., 2015). In this research, the reflective measuring pattern was used in this investigation. Hence, multicollinearity between exogenous variables seems not to be problematic since VIF values are less than 5. As shown in table 1.2.

Effect size $f^2$ refers to a construct that has a substantive influence on the endogenous latent variables. According to Hair et al. (2016), effect sizes greater than 0.35, 0.15, and 0.02 indicate large, medium, and small effects, respectively. In this research, the $f^2$ values for this investigation were provided by Smart PLS. Table 1.2 showed the effect size result.

A bootstrap analysis was done after generating path estimates in the structural model to establish the statistical significance of the path coefficient. In the current study, the researcher used 5000 bootstrap samples to test the regression coefficient significance as suggested by (Ringle et al., 2020; Streukens & Leroi-Werelds, 2016). Table 1.2 illustrates the statistical significance of direct effects.

Table 1.2: The statistical significance of direct effects

| Hyp | Relationship | Std. Beta | Std. Error | T-Value | P-Value | 95% confidence | $F^2$ | VIF |
|---|---|---|---|---|---|---|---|---|
| H1a | Autonym→job satisfaction | 0.160 | 0.051 | 2.908 | 0.004 | [0.057,0.270] | 0.024 | 2.12 |
| H1b | Skill variety→job satisfaction | 0.233 | 0.065 | 3.534 | 0.000 | [0.102,0.357] | 0.040 | 2.65 |
| H1c | Task significance→job satisfaction | 0.007 | 0.050 | 0.147 | 0.884 | [-0.092,0.104] | 0.000 | 1.82 |
| H1d | Task identity→job satisfaction | 0.162 | 0.058 | 2.812 | 0.005 | [0.043,0.275] | 0.026 | 2.03 |
| H1e | Feedback→job satisfaction | 0.198 | 0.051 | 3.89 | 0.000 | [0.101,0.302] | 0.053 | 1.45 |
| H1f | Job security→job satisfaction | 0.165 | 0.046 | 3.666 | 0.000 | [0.043,0.275] | 0.038 | 1.41 |
| H2a | Job satisfaction→task performance | 0.606 | 0.034 | 18.430 | 0.000 | [0.538,0.670] | 0.58 | 1.00 |
| H2b | Job satisfaction→contextual | 0.654 | 0.33 | 20.486 | 0.000 | [0.587,0.717] | 0.74 | 1.00 |

(Based on a one-tailed test with 5000 bootstrapping).

Based on table 1.2 the results of testing the hypothesis (H1a, and H1b) demonstrate a significant and positive link among autonomy and job satisfaction. The path coefficient for the link among skill variety and job satisfaction is 0.153, with a T value of 2.9. That is, skill variety has a significant and positive connection with job satisfaction. In contrast, the path coefficient for the association among task significance and work satisfaction is 0.011, with a T value of 0.23. It follows that the significance of a task does not influence work satisfaction. Conversely, the path coefficient for the association among job feedback and satisfaction is 0.181, with a T value of 3.7. As a result, job feedback has a positive and statistically significant impact on job satisfaction. With a T value of 3.2, the path coefficient for the link among task identity and job satisfaction is 0. 182. As a result, task identity is positively and significantly linked to job satisfaction. Likewise, the path coefficient for the association between job security and work

satisfaction is 0.164, with a T value of 3.8. As a result, job security is positively and significantly associated with job satisfaction.

The hypothesis testing findings (H3a, H3b) demonstrated a positive and statistically significant connection among job satisfaction and job performance (task and contextual).

In order to assess the mediation hypothesis. The significance of the indirect impact via the mediator variable is addressed in the first phase (Hair et al., 2016). Second, identifying the impact and mediation type (Carrión et al., 2017). As shown in Table 1.3

Table 1.3: The statistical significance of mediating effects.

| Hyp | Relationship | Path coefficients | T-Value | P-Value(indirect) | 95% confidence | Decision | P-value(direct) | Type |
|---|---|---|---|---|---|---|---|---|
| H3a | Autonym→job satisfaction→task performance | 0.063 | 2.483 | 0.013 | [0.021,0.118] | Supported | 0.052 | Full mediation |
| H3b | Skill variety→job satisfaction→task performance | 0.088 | 3.024 | 0.003 | [0.033,0.147] | Supported | 0.006 | Complementary Partial mediation |
| H3c | Task significance→job satisfaction→task performance | 0.002 | 0.119 | 0.905 | [-0.038,0.041] | Not Supported | 0.592 | _ |
| H3d | Task identity→job satisfaction→task performance | 0.063 | 2.646 | 0.008 | [0.020,0.112] | Supported | 0.236 | Full mediation |
| H3e | Feedback→job satisfaction→task performance | 0.076 | 3.023 | 0.003 | [0.033,0.131] | Supported | 0.252 | Full mediation |
| H3f | Job security→job satisfaction→task performance | 0.063 | 2.836 | 0.005 | [0.024,0.112] | Supported | 0.791 | Full mediation |
| H3g | Autonym→job satisfaction→ Contextual performance | 0.093 | 2.655 | 0.008 | [0.033,0.173] | Supported | 0.173 | Full mediation |
| H3h | Skill variety→job satisfaction→ Contextual performance | 0.130 | 3.267 | 0.001 | [0.051,0.209] | Supported | 0.115 | Full mediation |
| H3i | Task significance→job satisfaction→ Contextual performance | 0.004 | 0.119 | 0.905 | [-0.053,0.062] | Not Supported | 0.584 | _ |
| H3k | Task identity→ job satisfaction→ Contextual performance | 0.093 | 2.682 | 0.007 | [0.029,0.164] | Supported | 0.267 | Full mediation |
| H3m | Job feedback →job satisfaction→ Contextual performance | 0.113 | 3.582 | 0.000 | [0.065,0.180] | Supported | 0.993 | Full mediation |
| H3n | Job security →job satisfaction→ Contextual performance | 0.097 | 3.175 | 0.002 | [0.040,0.158] | Supported | 0.291 | Full mediation |

*p < 0.05 (based on one-tailed test with 5000 bootstrapping).

The findings indicate that (H3a) the indirect impacts of job satisfaction on the link among autonomy and task performance were significant and positive, with β = 0.063, t value = 2.483. The direct effects of autonomy on work satisfaction were positive and significant, while the indirect effects of autonomy on task performance were insignificant, indicating full mediation in the model. In contrast, (H3b) the indirect effects of work satisfaction on the link between skill verity and task were significant and positive, with path = 0.088, t =3.024. The direct effects of skill variation on work satisfaction were positive and significant, as was skill variety on task, indicating complementary partial mediation in the model. The results demonstrate that (H3c) the indirect impacts of satisfaction on the link among work significance

and task performance were insignificant, indicating that there was no mediation in the model. (H3d) showed that the indirect effects of job satisfaction on the connection among task identity and task were significant and positive, with path = 0.063, t = 2.646. The direct effects of task identity on work satisfaction were positive and significant, whereas the indirect effects of task identity on task were insignificant. In the model, this indicates full mediation.

The findings show that (H3e) the indirect impacts of job satisfaction among the association of job feedback and task performance were significant and positive, with path coefficient = 0.076, t value = 3.023, p <0.05. Job feedback has a direct significant and positive impact on job satisfaction but does not effect on task performance, indicating full mediation in the model. Likewise, the results reveal that (H3f) the indirect impacts of work satisfaction on job security and task were both positive and significant, with β = 0.063, t = 2.836. The direct impacts of job security on work satisfaction were positive and substantial, whereas the direct impacts of job security on task were insignificant, indicating full mediation in the model. The findings indicate that (H3g) the indirect effects of satisfaction on the association among autonomy and contextual performance were both significant and positive, with path coefficient = 0.093, t value = 2.655, p-value <0.05. The direct effects of autonomy on work satisfaction were positive and substantial, while the indirect benefits of autonomy on contextual were insignificant, indicating full mediation in the model. As well as (H3h) job satisfaction has a substantial and positive indirect influence on the connection among skill verity and contextual, with path coefficient = 0.130, t value = 3.267. The effects of skill variety on work satisfaction were positive and substantial, while the impacts of skill variety on contextual were insignificant, indicating that full mediation was used in the model.

The findings show that (H3i) the indirect impacts of work satisfaction among the association of job significance and contextual performance were insignificant, which shows no mediation in the model. Nevertheless, the findings indicate that (H3k) the indirect impacts of job satisfaction among connection of task identity and contextual performance were positive and significant, with path coefficient = 0.093, t value = 2.682, p-value <0.05. The direct effects of task identity on work satisfaction were positive and substantial, while the indirect effects of task identity on contextual performance were insignificant, indicating full mediation in the model. Moreover, the findings indicate that (H3m) job satisfaction among the connection between job feedback and contextual were significant and positive. Job feedback has significant influence on job satisfaction, job feedback on contextual was insignificant, which demonstrates full mediation in the model. Furthermore, the findings show that (H3n) the indirect impacts of work satisfaction between job security and contextual were both positive and substantial. The

direct impact of work security on work satisfaction was positive and substantial, whereas the indirect impact of job security on contextual factors was insignificant, indicating full mediation in the model.

## DISCUSSION AND CONCLUSION

This research discovers theoretical and empirical theory by evaluating the link among job resources and performance. This is one of the few studies, and the first systematic big sample study, that assesses the link among "job resources and job performance via job satisfaction" on an individual level in Jordanian hospitals. Furthermore, this paper adds to knowledge by examining the factors of hospital physicians' performance from an individual's viewpoint, as well as the influence of job satisfaction mediation between job resources and job performance.

According to the results of this study, job resources such as task identity, skill variety, autonomy, job feedback, and security have a significant and positive relation with satisfaction. However, job significance was insignificant. According to the findings, physicians with a high level of job resources can boost their job satisfaction levels at the workplace. This result is similar to other studies, which found that a high level of job resources was necessary to achieve beneficial outcomes such as employee overall job satisfaction (Ali et al., 2014; Andrew, Haris, Zakariah, & Zekaria, 2016; Beehr, Jex, Stacy, & Murray, 2000; Nahrgang et al., 2011b; Said & Munap, 2010). Meanwhile, the research found a positive association among satisfaction and job performance (contextual and task). Thus, higher levels of job satisfaction have been related with higher levels of performance. Previous research, on the other hand, has confirmed that such (Christen et al., 2006; Inuwa, 2016; Mira et al., 2019; Petty et al., 1984).

For the mediator in this study, the findings presented that job satisfaction is a significant mediator in the association among the five core elements of job resources (task identity, skill variety, autonomy, job feedback, and job security) and both task and contextual performance. However, one core element of job resource (job significance) was not mediated by job satisfaction. One possible explanation for this may be that because physicians are more concerned if the task, they have affected the health or happiness of patients.

## LIMITATIONS AND FUTURE RESEARCH

This study focused on physicians in Jordanian hospitals. In the future, academics will be able to broaden their study to include additional regions and economies. In addition, the data consisted of a convenience sample gathered from the Jordanian public hospitals. As a result, a

bigger sample size would provide a more accurate view of job resources and job performance. Hence, in the future, researchers may wish to conduct experiments on the concepts in other settings, such as private hospitals and other medical institutions.

Future studies may seek to include more hospital professionals, such as nurses, pharmacists, and allied health personnel, in order to explore and analyse the important aspects that may impact their job performance. Only quantitative methods were used to collect data for this investigation. As a result, it would be useful if the future study could integrate qualitative data gathering procedures such as in-depth interviews or observations techniques.

## REFERENCES

Ahmed, A. S. (2012). 318 Verbal and physical abuse against Jordanian nurses in the work environment. *Eastern Mediterranean Health Journal*, *18*(4), 318–324. https://doi.org/10.26719/2012.18.4.318

Al-Omari, K., & Okasheh, H. (2017). The influence of work environment on job performance: A case study of engineering company in Jordan. *International Journal of Applied Engineering Research*, *12*(24), 15544–15550. http://www.ripublication.com

Al-Shiyab, A. A., & Ababneh, R. I. (2018). Consequences of workplace violence behaviors in Jordanian public hospitals. *Employee Relations*, *40*(3), 515–528. https://doi.org/10.1108/ER-02-2017-0043

Alfuqaha, O., & Alshra'ah, H. (2018). Burnout among nurses and teachers in Jordan: a comparative study. *Archives of Psychiatry and Psychotherapy*, *20*(2), 55–65. https://doi.org/10.12740/APP/80168

Al Qadire, M., & Alkhalaileh, M. (2017). Determinants of public satisfaction and perception of national healthcare services availability in Jordan: A patient survey. *British Journal of Medicine and Medical Research*, 20(5), 1-10. DOI: 10.9734/BJMMR/2017/31529

Ali, N., & Zia-ur-Rehman, M. (2014). Impact of Job Design on Employee Performance, Mediating Role of Job Satisfaction: A Study of FMCG's Sector in Pakistan. *International Journal of Business and Management*, *9*(2). https://doi.org/10.5539/ijbm.v9n2p70

Ali, S. A. M., Said, N. A., Yunus, N. M., Kader, S. F. A., Latif, D. S. A., & Munap, R. (2014).

Hackman and Oldham's Job Characteristics Model to Job Satisfaction. *Procedia - Social and Behavioral Sciences*, *129*, 46–52. https://doi.org/10.1016/j.sbspro.2014.03.646

Andrew, L., Haris, N., Zakariah, H., & Zekaria, N. (2016). Job Characteristics and Job Satisfaction Among Employees: A Case Study At Craun Research Sdn. Bhd., Kuching, Sarawak. *International Academic Research Journal of Business and Technology*, *2*(2), 165–171.

Aziri, B. (2011). Job satisfaction: A literature review. *Management Research & Practice*, 3(4). http://mrp.ase.ro/no34/f7.pdf

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of managerial psychology*.https://doi.org/10.1108/02683940710733115

Bakker, A. B., & Demerouti, E. (2014). Job demands–resources theory. Wellbeing: *A complete reference guide*, 1-28. DOI: 10.1002/9781118539415.wbwell019

Bakker, A., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, *22*(3), 273–285. https://doi.org/10.1037/ocp0000056

Beehr, T. A., Jex, S. M., Stacy, B. A., & Murray, M. A. (2000). Work stressors and coworker support as predictors of individual strain and job performance. *Journal of Organizational Behavior*, *21*(4), 391–405. https://doi.org/10.1002/(SICI)1099-1379(200006)21:4<391::AID-JOB15>3.0.CO;2-9

Bronkhorst, B. (2015). Behaving safely under pressure: The effects of job demands, resources, and safety climate on employee physical and psychosocial safety behavior. *Journal of Safety Research*, *55*, 63–72. https://doi.org/10.1016/j.jsr.2015.09.002

Buitendach, J., De Witte, H., Leuven, K. U., Buitendach, J. H., & De Witte, H. (2005). Job insecurity, extrinsic and intrinsic job satisfaction and affective organisational commitment of maintenance workers in a parastatal. *South African Journal of Business Management*, *36*(2), 27–37. https://doi.org/10.4102/sajbm.v36i2.625

Campbell, J. P., McHenry, J. J., & Wise, L. L. (1990). Modeling job performance in a population of jobs. *Personnel psychology*, 43(2), 313-575. https://doi.org/10.1111/j.1744-

6570.1990.tb01561.x

Carrión, G. C., Nitzl, C., & Roldán, J. L. (2017). Mediation analyses in partial least squares structural equation modeling: Guidelines and empirical examples. *In Partial least squares path modeling* (pp. 173-195). Springer, Cham. DOI: 10.1007/978-3-319-64069-3_8

Carlos, V. S., & Rodrigues, R. G. (2016). Development and Validation of a Self-Reported Measure of Job Performance. *Social Indicators Research*, *126*(1), 279–307. https://doi.org/10.1007/s11205-015-0883-z

Chandraiah, K., Agrawal, S. C., Marimuthu, P., & Manoharan, N. (2003). Occupational stress and job satisfaction among managers. Indian Journal of occupational and Environmental medicine, 7(2), 6.

Christen, M., Iyer, G., Soberman, D., Anderson, E., Mitchell, A., Russell, G., & Staelin, R. (2006). Job Satisfaction, Job Performance, and Effort: A Reexamination Using Agency Theory. *Journal of Marketing*, *70*(4), 137–150. https://doi.org/10.1509/jmkg.70.1.137.qxd

Coleman, V. I., & Borman, W. C. (2000). Investigating the Underlying Structure of the Citizenship Performance Domain. *Human Resource Management Review*, *10*(1), 25–44. https://doi.org/10.1016/S1053-4822(99)00037-6

Darawad, M. W., Al-Hussami, M., Saleh, A. M., Mustafa, W. M., & Odeh, H. (2015). Violence against nurses in emergency departments in Jordan: Nurses' perspective. *Workplace Health and Safety*, *63*(1), 9–17. https://doi.org/10.1177/2165079914565348

De Cuyper, N., & De Witte, H. (2006). Autonomy and workload among temporary workers: Their effects on job satisfaction, organizational commitment, life satisfaction, and self-rated performance. *International Journal of Stress Management*, *13*(4), 441–459. https://doi.org/10.1037/1072-5245.13.4.441

Demerouti, E., Nachreiner, F., Bakker, A. B., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

Desrumaux, P., Lapointe, D., Ntsame Sima, M., Boudrias, J. S., Savoie, A., & Brunet, L. (2015). The impact of job demands, climate, and optimism on well-being and distress at work:

What are the mediating effects of basic psychological need satisfaction? *Revue Europeenne de Psychologie Appliquee*, *65*(4), 179–188. https://doi.org/10.1016/j.erap.2015.06.003

Dwyer, D. J., & Ganster, D. C. (1991). The effects of job demands and control on employee attendance and satisfaction. *Journal of Organizational Behavior*, *12*(7), 595–608. https://doi.org/10.1002/job.4030120704

Faragher, E. B., Cass, M., & Cooper, C. L. (2005). The relationship between job satisfaction and health: A meta-analysis. *Occupational and Environmental Medicine*, *62*(2), 105–112. https://doi.org/10.1136/oem.2002.006734

Ferreira, A. I., Martinez, L. F., Lamelas, J. P., & Rodrigues, R. I. (2017). Mediation of job embeddedness and satisfaction in the relationship between task characteristics and turnover: A multilevel study in Portuguese hotels. *International Journal of Contemporary Hospitality Management.* DOI: 10.1108/IJCHM-03-2015-0126

Gay, L. R., Mills, G. E., & Peter Airasian. (2012). Competencies for Analysis and Applications 10th Edition. In *Pearson Education, Inc*.

Greenslade, J. H., & Jimmieson, N. L. (2007). Distinguishing between task and contextual performance for nurses: development of a job performance scale. *Journal of Advanced Nursing*, *58*(6), 602–611. https://doi.org/10.1111/j.1365-2648.2007.04256.x

Grigsby, M. A. A. (2013). Testing the job demands-Resources model in a workplace health promotion context (Doctoral dissertation, University of Georgia).

Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, *60*(2), 159–170. https://doi.org/10.1037/h0076546

Hair, Hult, G., Ringle, C., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLS-SEM). In *Sage publications*.

Inuwa, M. (2016). Job Satisfaction and Employee Performance: An Empirical Approach. *The Millennium University Journal*, *1*(1).

Jacobs, K., Hellman, M., Wuest, E., & Markowitz, J. (2013). Job performance. *Encyclopedia of behavioral medicine*, 1132-1133.

Kayastha, D. P., & Kayastha, R. (2012). A study of occupational stress on job satisfaction among teachers with particular reference to corporate, higher secondary school of Nepal: Empirical study. *Asian journal of management sciences and education*, 1(2), 52-62.

Khatatbeh, M., Alkhaldi, S., Al-Omari, O., & Khader, Y. (2015). Factors impact on turnover of physicians in rural Jordan. *Health Systems and Policy Research*, *2*(1), 1–5.

Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., de Vet, H. C., & van der Beek, A. J. (2011). Conceptual frameworks of individual work performance: A systematic review. Journal of occupational and environmental medicine, 856-866.https://doi.org/10.1097/JOM.0b013e318226a763

Lawler, E. E., & Porter, L. W. (1967). The Effect of Performance on Job Satisfaction. Industrial Relations. *A Journal of Economy and Society*, *7*(1), 20–28.

Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, *4*(4), 309–336. https://doi.org/10.1016/0030-5073(69)90013-0

Malik, M. I., Safwan, M. N., & Sindhu, A. G. (2011). Examining stress, job satisfaction and customer satisfaction in a transport company (A case from Pakistan ). *International Journal of Business and Social Science*, *2*(18), 81–85.

McCloy, R. A., Campbell, J. P., & Cudeck, R. (1994). A Confirmatory Test of a Model of Performance Determinants. *Journal of Applied Psychology*, *79*(4), 493–505. https://doi.org/10.1037/0021-9010.79.4.493

Mira, M. S., Choong, Y. V., & Thim, C. K. (2019). The effect of HRM practices and employees' job satisfaction on employee performance. *Management Science Letters*, *9*(6), 771–786. https://doi.org/10.5267/j.msl.2019.3.011

Motowidlo, S. J., & Borman, W. C. (2000). Contextual Performance and Organizational Citizenship Behavior in Human Management. https://doi.org/10.1016/S1053-4822(99)00035-2

Motowildo, S. J., Borman, W. C., & Schmit, M. J. (1997). A Theory of Individual Differences in Task and Contextual Performance. *Human Performance*, *10*(2), 71–83. https://doi.org/10.1207/s15327043hup1002_1

Nadhir, N. H. M., & Puteh, F. (2017). Impact assessment of job characteristics model on employee engagement. *E-Academia Journal*, 6(1). https://myjms.mohe.gov.my/index.php/JeA/article/view/2222.

Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at Work: A Meta-Analytic Investigation of the Link Between Job Demands, Job Resources, Burnout, Engagement, and Safety Outcomes. *Journal of Applied Psychology*, *96*(1), 71–94. https://doi.org/10.1037/a0021484

Nakagawa, Y., Inoue, A., Kawakami, N., Tsuno, K., Tomioka, K., Nakanishi, M., ... & Hiro, H. (2014). Job demands, job resources, and job performance in Japanese workers: A cross-sectional study. *Industrial health*. https://doi.org/10.2486/indhealth.2014-0036

Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Känsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work & Stress*, 31(2), 101-120. https://doi.org/10.1080/02678373.2017.1304463

Petty, M. M., McGee, G. W., & Cavender, J. W. (1984). A Meta-Analysis of the Relationships Between Individual Job Satisfaction and Individual Performance. *Academy of Management Review*, *9*(4), 712–721. https://doi.org/10.5465/amr.1984.4277608

Pradhan, R. K., & Jena, L. K. (2017). Employee Performance at Workplace: Conceptual Model and Empirical Validation. *Business Perspectives and Research*, *5*(1), 69–85. https://doi.org/10.1177/2278533716671630

Price, T., Brennan, N., Cleland, J., Prescott-Clements, L., Wanner, A., Withers, L., ... & Archer, J. (2018). Remediating doctors' performance to restore patient safety: a realist review protocol. *BMJ open*, 8(10), e025943. doi: 10.1136/bmjopen-2018-025943

Rehman, M. U., Irum, R., Tahir, N., Ijaz, Z., Noor, U., & Slama, U. (2014). The Impact of Job Stress on Employee Job Satisfaction A Study on Telecommunication Sector of Pakistan. *Journal of Business Studies Quarterly*, *2*(3), 50–56. https://doi.org/10.1111/j.1468-5922.2007.00690.x

Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource*

*Management*, 31(12), 1617-1643. https://doi.org/10.1007/978-3-319-05542-8_15-2

Rothmann, S., Mostrt, K., & Strydom, M. (2006). A Psychometric Evaluation of the JDRS in South Africa. *SA Journal of Industrial Psychology*, *32*(4). https://hdl.handle.net/10520/EJC89107

Said, N. A., & Munap, R. (2010). Job characteristics and job satisfaction: A relationship study on supervisors performance. *5th IEEE International Conference on Management of Innovation and Technology, ICMIT2010*, 714–719. https://doi.org/10.1109/ICMIT.2010.5492732

Schaufeli, W. B. (2015). Engaging leadership in the job demands-resources model. *Career Development International*, *20*(5), 446–463. https://doi.org/10.1108/CDI-02-2015-0025

Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. *Bridging occupational, organizational and public health*, 43-68.https://doi.org/10.1007/978-94-007-5640-3-4

Sekaran, U. (2003). *Research Methods: A Skill Building Approach*. http://www.wiley.com/college

Sonnentag, S., Volmer, J., & Spychala, A. (2008). Job performance. *The Sage handbook of organizational behavior*, 1, 427-447. https://doi.org/10.4135/9781849200448.n24

Streukens, S., & Leroi-Werelds, S. (2016). Bootstrapping and PLS-SEM: A step-by-step guide to get more out of your bootstrap results. *European Management Journal*, *34*(6), 618–632. https://doi.org/10.1016/j.emj.2016.06.003

Umrani, W. A., Afsar, B., Khan, M., & Ahmed, U. (2019). Addressing the issue of job performance among hospital physicians in Pakistan: The role of job security, organizational support, and job satisfaction. *Journal of Applied Biobehavioral Research*, 24(3), e12169. https://doi.org/10.1111/jabr.12169

Van Wingerden, J., Bakker, A. B., & Derks, D. (2016). A test of a job demands-resources intervention. *Journal of Managerial Psychology*. https://doi.org/10.1108/JMP-03-2014-0086

Van Wingerden, J., Derks, D., & Bakker, A. B. (2018). Facilitating interns' performance: The role of job resources, basic need satisfaction and work engagement. *Career Development International*, *23*(4), 382–396. https://doi.org/10.1108/CDI-12-2017-0237

Weiss, H. M., & Merlo, K. L. (2015). Job Satisfaction. *International Encyclopedia of the Social & Behavioral Sciences*, 833–838. https://doi.org/10.1016/B978-0-08-097086-8.22029-1

Wingerden, J. van, Bakker, A. B., & Derks, D. (2016). A test of a job demands-resources intervention. *Journal of Managerial Psychology*, *31*(3), 686–701. https://doi.org/10.1108/JMP-03-2014-0086