

# The Factors Affecting on Productivity in Healthcare Sector

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## ABSTRACT

**Purpose:** Due to increasing cost pressures, and the necessity to ensure high quality patient care while maintaining a safe environment for patients and staff, interest in the capacity for HRM practices to make a difference has piqued the attention of healthcare professionals. The purpose of this papers is to present and test a model whereby engagement mediates the relationship between four HRM practices and quality of care and safety in two different occupational groups in healthcare, namely, nurses and administrative support workers.

**Design/methodology/approach:** Structural equation modeling was used to analyze questionnaire data collected by the National Health Service as part of their Staff Survey .The authors tested the hypotheses for nurses and administrative support workers separately.

**Findings:** Training, participation in decision making, opportunities for development, and communication were positively related to quality of care and safety via work engagement. The strength of the relationships was conditional on whether an employee was a nurse or administrative support worker.

**Originality/value:** This is the first paper to examine the mediating role of engagement on the relationship between four relevant HRM practices in the healthcare context, and outcomes important to healthcare practitioners. The authors also add value to the HRM literature by being among the first to use the job demands resources model to explain the impact of HRM practices on performance outcomes. Moreover, the authors provide insight into how HRM practices affect outcomes in the world's largest publicly funded healthcare service.

**Keywords:** JDR Model, HRM practices in hospitals, Nursing Care, Job performance improvement in nurses, importance of training for nurses

## INTRODUCTION

This paper delves into the global perspective of healthcare systems, highlighting the crucial role of human resources management (HRM) in enhancing patient health outcomes and the delivery of healthcare services. Recently, there has been a growing recognition of the significance of human asset management within healthcare systems. The interconnection between HR and healthcare systems is intricate, necessitating a delicate balance between human and physical resources. Pakistan's healthcare system is currently at a critical juncture.

In the contemporary landscape, Human Resource practices are pivotal in driving

significant advancements within the healthcare sector. They foster a mutually beneficial relationship between HR strategies and productivity, thereby enhancing overall performance.<sup>1</sup>

The organization's HR practices, including recruitment, training and development initiatives, job design, and reward systems, serve as crucial catalysts in cultivating engaged employees who are deeply aligned with organizational objectives.<sup>6</sup>

Employee engagement is receiving widespread attention, yet there's still limited focus on understanding the direct impact of HR practices on enhancing employee engagement.<sup>7,8</sup>

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When employees receive both economic and social rewards through HR practices, they become motivated to fulfill their work roles and contribute to organizational goals. The primary objective of this study is to establish a connection between engagement, HRM practices, and productivity. The research question is as follows:

### **Does engagement serve as a mediator in the relationship between HRM practices and healthcare outcomes?**

In this current study, we establish a connection between HRM literature and the Job Demands-Resources (JDR) model by highlighting how HRM practices impact the characteristics of job resources.

Central to this review or theoretical model is the concept of commitment, which reflects the dynamic and motivated state of the workplace. According to this hypothesis, the development of certain job resources anticipates that these resources will ignite commitment, which subsequently translates into positive outcomes. Thus, in our study, we bridge HRM practices with the qualities of job resources, drawing from both HRM literature and the JDR model.<sup>9</sup>

Ensuring effective management of human resources is paramount in delivering high-quality healthcare. There is a pressing need for a renewed emphasis on human resources management within the healthcare sector, accompanied by further research to formulate new policies. Implementing effective human resources management strategies is crucial to enhance both outcomes and accessibility to healthcare services in Pakistan.

### **JDR MODEL**

The Job Demands-Resources (JD-R) Model posits that even in demanding job environments, individuals can experience reduced stress if their organization provides resources to support them. Our theoretical framework draws upon the JD-R model, which suggests that job resources fuel engagement, leading to favorable outcomes. As the JD-R model evolves into JD-R theory, it represents an extension of this conceptual framework.<sup>10</sup> JD-R Theory is informed by job stress and job design theories, synthesizing their insights.

It integrates two strands of traditional research: one explicating the impacts of job demands and job resources separately on motivation and stress, and another exploring the interactive effects of job demands and job resources on both motivation and stress.<sup>11</sup>

### **METHOD**

We explored the published literature and collected data through primary sources.

### **HYPOTHESIS**

Training is positively related to work engagement. Work engagement mediates the relationship between training and productivity:

#### **Definition of Training**

Training involves the systematic acquisition of skills, rules, concepts, or attitudes that enhance performance in different contexts<sup>(12)</sup>. It stands as a fundamental function within human resources management, employing formal processes to equip individuals with the knowledge and skills necessary for satisfactory job performance<sup>(23)</sup>. These practices have become prevalent across organizations worldwide.<sup>24</sup>

Work assets encompass a spectrum of physical, mental, social, and organizational resources that employees utilize to achieve work objectives. These assets include individuals' cognitive styles, self-confidence, behavioral patterns, leadership, support networks from colleagues, friends, and family, opportunities for advancement, compensation, work environment, and variety of tasks.<sup>4,5</sup>

The motivational process suggests that job resources can enhance employees' engagement, leading to positive outcomes such as enhanced job performance and organizational commitment<sup>(13)</sup>. Thus, simply reducing job demands may not be the most effective strategy for boosting engagement. Optimal job demands contribute to a perception of a stimulating job, and overly reducing them could diminish employee engagement.<sup>14,15</sup>

Work engagement has garnered significant attention from management scholars and organizational practitioners due to its positive

effects on employee well-being and performance<sup>16-18</sup>  
It serves as a crucial motivational factor shaping in-role job performance.<sup>17-19</sup>

Defined as a positive, affective, and motivational state of mind related to work, work engagement is characterized by vigor, dedication, and absorption<sup>(20, 21)</sup>. In this study, we employ a complex hypothesis framework given the involvement of more than two basic variables, utilizing alternative hypotheses to examine the effects of independent variables on dependent variables.

### Definition of Development

Development refers to functional changes observed in individuals' behavior and actions, encompassing a wide array of biological, social, and psychological transformations over time.

Some researchers argue that an increase in work engagement may not always result in a linear improvement in job performance; instead, it may exhibit an inverted U-shaped relationship<sup>(22)</sup>. For instance, the job demands-resources model (JD-R) suggests that employees' job performance is influenced by two main factors: work demands and work resources.

### Definition of Participation

Participation is no longer simply 'participating in a task', rather it can be defined as two discrete elements, **attendance** and **involvement**.<sup>27</sup>

The majority of employees "participate in the form of institutionalized and binding involvement (mandatory joint consultation) or decision-making (i.e., codetermination with equal representation or collective self-determination), refer to tactical or strategic decisions; considers issues at the organizational level (a large unit, plant, corporation, etc.); participate either directly (within meetings or general assemblies) or indirectly through their representatives who are elected or appointed into a representative board/committee; and often hold a share in their organization's equity capital".<sup>25, 26</sup>

### Definition of communication

Communication serves as the conduit through which information is exchanged among individuals using a shared system of symbols, signs, or behaviors.

Employee communication, also referred to as internal communication or internal public relations<sup>(28)</sup>, is recognized as a vital element in contemporary business operations. It not only fosters positive relationships with external stakeholders but also plays a crucial role in enhancing organizational performance.<sup>29</sup>

Amidst pandemics and crises, researchers are increasingly interested in understanding the impact of employee communication on organizational performance. Even during challenging times like the ongoing pandemic, organizations striving to adapt and evolve must prioritize ongoing support for their employees.

Utilizing remote working as a communication medium can bolster productivity and drive organizational improvement.<sup>30</sup> Hence, recognizing the specific communication roles undertaken by employees can significantly contribute to organizational resilience and performance. This approach may prove to be the most effective strategy in enhancing employee engagement. Simply reducing job demands may not always lead to increased engagement; instead, an optimal balance is essential to maintain a stimulating work environment and prevent a decline in employee engagement.

### Limitations

The NHS staff survey data utilized in this study is cross-sectional in nature. While the study hypotheses are grounded in a robust theoretical framework, it's important to acknowledge that causality cannot be definitively established. It is plausible that factors such as safety and the delivery of high-quality care preceded employee engagement. However, we explored alternative models where HRM practices influenced the quality of care and safety, which subsequently influenced engagement. The findings from these alternative models indicated a poorer fit, providing further evidence that engagement likely

influences safety and quality of care, rather than the reverse. Nonetheless, we advocate for future research to validate our model using longitudinal data.

Furthermore, all variables in our study were assessed using self-report measures, raising concerns about common method variance. However, our statistical analyses suggested that common method variance did not entirely explain the observed associations, and the variables under examination were distinct from one another. Another limitation pertains to the reliance on self-report measures for our outcome variables. Despite this, existing literature suggests that perceptions of safety and quality of care are reliable indicators of actual outcomes such as accidents, injuries, and patient stay duration. Nonetheless, future research should aim to incorporate objective measures of quality and safety.

Additionally, the data used in our study was sourced from the NHS in the UK. While our results may have generalizability to other public-sector healthcare settings, caution should be exercised when extrapolating to privatized healthcare contexts. However, analyzing NHS data could be perceived as a strength of our study, as it helps mitigate the potential impact of organizational factors (e.g., organizational vision) on the hypothesized relationships.

## Methodology

### Introduction

We are going to discuss the following in the heading in the methodology.

### Research philosophies

We are using epistemology because we are finding the effect of training opportunities, opportunities of development, participation in decision making, communication, work engagement on productivity in health sector.

### Research approaches

We are using deductive statistical quantitative approach

### Strategies

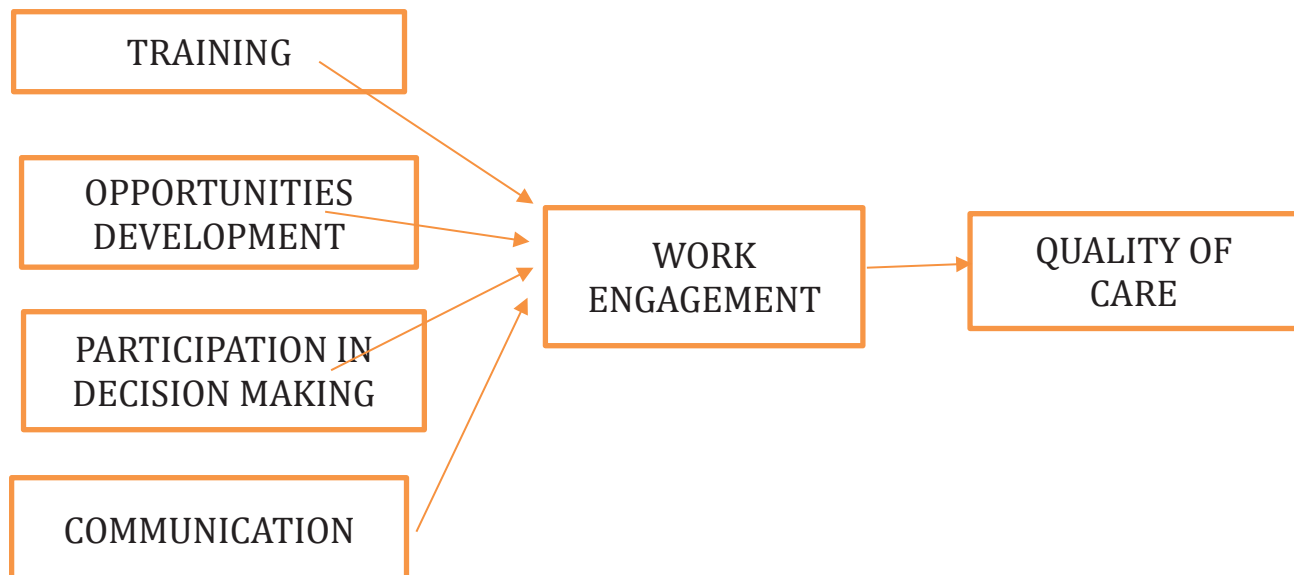
We are using surveys to gather our data.

### Research methods

We are using cross section study because we are observing relationship of training, development opportunities, communication on productivity in specific time period.

### SAMPLING TECHNIQUES.

**Convenience sampling:** We are using convenience sampling as it refers to the collection of information from members of the population who are conveniently available to provide it.



## Research designs

We are using exploratory research because we are creating hypotheses rather than test them.

**Target Population:** Our target population is all the workers and of the health care sector like nurses, doctors, paramedical staff.

**Sample Size :** The sample size of our research paper is 200 as the requirements of data in SPSS is minimum 2000.

In general, the precision of an estimate is related to the square root of the sample size—in other words, to double the precision, the sample size must be quadrupled. As a rule, sample sizes of 200 to 300 respondents provide an acceptable margin of error and fall before the point of diminishing returns.<sup>32</sup>

## RESEARCH TOOLS: SPSS

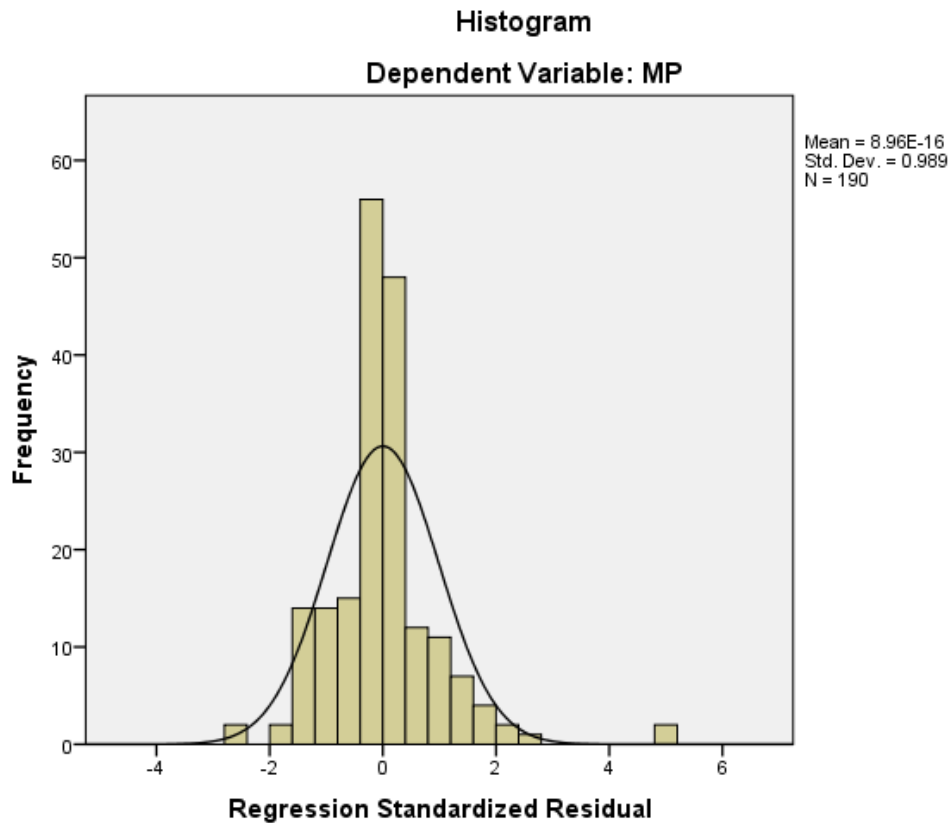
### INSTRUMENT DEVELOPMENT:

VARIABLES	AUTHOR	ITEMS	RELIABILITY
Training Opportunities	<a href="#">Shantz, A.</a> , (2016)	3	<0.05
Opportunities To Development	<a href="#">Alfes, K.</a> and <a href="#">Whiley, L.</a> (2016)	3	<0.05
Participation in Decision Making	<a href="#">Amanda Shantz,</a> <a href="#">Kerstin Alfes,</a> <a href="#">Lilith Whiley</a> (2017)	3	<0.05
Communication	<a href="#">Kerstin Alfes,</a> <a href="#">Lilith Whiley</a> (2017)	3	<0.05
Work engagement	<a href="#">Kerstin Alfes,</a> <a href="#">Lilith Whiley</a> (2016)	3	<0.05
Productivity	<a href="#">Amanda Shantz,</a> (2017)	3	<0.05
Enabling HRM Practices (Boon, Den Hartog, Boselie and Paauwe, 2011)	How HRM system, policy and practices promoting productivity and quality in the organizations?		
Participation and job Design	Employees are involved in productivity and quality decisions and can take responsibility for their own tasks and activities (e.g. Dal Pont et al., 2008; Zu and Fredendall, 2009).		
Recruitment and selection	New employees are critically selected. Selection criteria include skills and knowledge on productivity and quality management (e.g. MacDuffie, 1995; Zacharatos et al., 2007). In service organizations, quality improvement must be focused on recruitment and selection (e.g. Mohinder 2004; Chand and Katou 2007).		
Training and development	There is training in productivity and quality management for managers and employees. There are opportunities to develop new skills and knowledge (e.g. Birdi et al., 2008; Shah and Ward, 2003). Employees should receive the necessary training to deliver high quality service (e.g. Harline and Jones, 1996).		
Performance appraisal and rewards	Employees receive feedback on Productivity and quality performance of their team and are rewarded for productivity and quality improvement (e.g. Anand and Kodali, 2009; McKone et al., 2001).		
Team working and Autonomy	Teams are formed to solve problems relating to productivity and quality. Teams are encouraged to try to solve their problems as much as possible (e.g. Bonavia and Marin, 2006; Cua et al., 2001).		
Employment security	Employees have an employment contract that offers job security (Zacharatos et al., 2007).		
Work/life balance	Employees have the possibility to work flexible hours and arrange their work schedule (De Koeijer et al., 2014)		

**Result**

As our reliability is less than 0.05. In this case opportunities to development are not having an effect on productivity. But on the other

hand, training participation in decision making and work engagement play a significant role in productivity and effect directly on the productivity of the health care employees.



**Model Summaryb**

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
1	.314a	.099	.079		.38465	1.106

a. Predictors: (Constant), MC, MT, MOD, MPDM

b. Dependent Variable: MP

**ANOVA<sup>a</sup>**

Model		Sum Squares	df	Mean Square	F	Sig.
1	Regression	2.998	4	.750	5.067	.001 <sup>b</sup>
	Residual	27.371	185	.148		
	Total	30.370	189			

a. Dependent Variable: MP

b. Predictors: (Constant), MC, MT, MOD, MPDM

**Coefficients<sup>a</sup>**

Model	B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		Std. Error	Beta			Tolerance	VIF	
	(Constant)	4.254	.456		9.321	.000		
1	MT	-.342	.079	-.317	-4.308	.000	.898	1.114
	MOD	-.066	.061	-.087	-1.080	.282	.743	1.347
	MPDM	.156	.065	.231	2.396	.018	.524	1.909
	MC	-.133	.063	-.180	-2.106	.037	.668	1.497

a. Dependent Variable: MP

**Conclusion**

This paper explains why we are doing this research in the healthcare sector and how to take good decisions and increase productivity. The main thing that's helps to increase productivity is training. Training is a basic step. After this communication matters a lot because without proper communication don't get the desired result in terms of productivity. In Future we use Organizations Development as an independent variable because when organizations are developing its mean training, communications,

opportunities, participation in decision-making all things happened with more accuracy. We thought that there will be a direct relationship between all the independent variables (training opportunities, opportunities for development, participation in decision making and communication) on dependent variable which is productivity. But training, participation in decision making and work engagement play a direct role to productivity but opportunities to development is not playing direct role on productivity.

**Questionnaire**

Please select your desired response: For example: If your response is 4 (Agree) than it will be like this		Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	Training Opportunities :					
01	My training, learning and development has helped me to do my job better.		1	2	3	4 5
02	My training, learning and development has helped me stay up to date with my job.		1	2	3	4 5
03	My training, learning and development has helped me stay up to date with professional requirements.		1	2	3	4 5

Please select your desired response: For example: If your response is 4 (Agree) than it will be like this		Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	Opportunities for Development:					
01	There are opportunities for me to progress in my job.		1	2	3	4 5
02	I am supported to keep up to date with developments in my field.		1	2	3	4 5
03	I am encouraged to develop my own expertise.		1	2	3	4 5
	Participation in Decision Making:					
01	I am able to make suggestions to improve the work of my team/department.		1	2	3	4 5
02	There are frequent opportunities for me to show initiative in my role.		1	2	3	4 5
03	I am able to make improvements happen in my area of work.		1	2	3	4 5
	Communication :					
01	Communication between senior management and staff is effective.		1	2	3	4 5
02	On the whole, different parts of the organization communicates effectively with each other.		1	2	3	4 5
03	I know who the senior managers are here.		1	2	3	4 5
	Work Engagement:					
01	I look forward to going to work.		1	2	3	4 5
02	I am enthusiastic about my job.		1	2	3	4 5
03	Time passes quickly when I am working.		1	2	3	4 5

Please select your desired response: For example: If your response is 4 (Agree) than it will be like this		Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	Productivity :					
01	Cutting cost to improve productivity over-utilization of labor.		1	2	3	4 5
02	Easier to cut costs than improve outcomes.		1	2	3	4 5
03	Are the healthcare outcome improvement related to the healthcare sector or some other policy change?		1	2	3	4 5

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