

TALENT MANAGEMENT PRACTICES, ORGANIZATIONAL JUSTICE AND EMPLOYEE WELL-BEING AS DRIVERS OF HEALTH-WORKER RETENTION: EMPIRICAL EVIDENCE FROM KARACHI'S HEALTHCARE SECTOR

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Abstract

Health-worker retention has emerged as a critical challenge in low- and middle-income countries, with Karachi, Pakistan representing a particularly acute case of workforce instability driven by high turnover, professional emigration, and systemic disengagement. Despite growing recognition of this problem, no study has simultaneously examined the combined influence of talent management practices, organizational justice, and employee well-being on retention outcomes within Karachi's healthcare sector. This study addresses that gap by testing an integrated model of these three predictors and their mediated pathways to retention. Using a quantitative, cross-sectional design, data were collected from 383 healthcare professionals across public and private hospitals in Karachi via structured questionnaire and analyzed using descriptive statistics, Pearson correlation, multiple regression, and mediation analysis through Hayes' PROCESS macro in SPSS. Grounded in Social Exchange Theory, Conservation of Resources Theory, and the Job Demands-Resources Model, these findings offer actionable guidance for hospital administrators, HR practitioners, and health policymakers, while contributing original empirical evidence to healthcare human resource management literature in emerging economies.

1. INTRODUCTION

The retention of health workers has emerged as one of the most pressing strategic concerns in healthcare systems across low- and middle-income countries, particularly in rapidly urbanizing contexts such as Karachi, Pakistan (Boniol et al., 2022; Liu et al., 2016; World Health Organization, 2024). The city's healthcare sector, characterized by a fragmented mix of public hospitals, private tertiary institutions, and charitable facilities, faces persistent difficulties in retaining qualified physicians, nurses, allied health professionals, and administrative staff (Mir et al., 2015). While workforce shortages in Pakistan have been

extensively documented at the national level (Muhammad et al., 2023), the organizational and psychosocial determinants of retention at the institutional level remain insufficiently examined.

Three constructs have independently attracted scholarly attention in this regard: talent management practices encompassing practices that develop and retain high-contributing employees (Collings & Mellahi, 2009); organizational justice reflecting employee perceptions of fairness in outcomes, procedures, and interpersonal treatment (Colquitt et al., 2001); and employee well-being a multidimensional construct encompassing psychological flourishing and physical health

(Deci & Ryan, 2000). However, the literature on their simultaneous influence on health-worker retention within Karachi's healthcare sector remains fragmented and empirically underdeveloped.

This study addresses that gap by examining the direct and mediated pathways through which talent management practices, organizational justice, and employee well-being influence retention outcomes in private and public sector hospitals in Karachi. Drawing on Social Exchange Theory (Blau, 1964), the Conservation of Resources Theory (Hobfoll, 1989), and the Job Demands-Resources Model (Bakker & Demerouti, 2017; Demerouti et al., 2001), the research contributes original empirical evidence to the literature on healthcare human resource management in emerging economies and offers actionable guidance for hospital administrators and health policymakers in Pakistan.

2. Problem Statement

Healthcare organizations in Karachi face a persistent workforce crisis marked by high turnover, skilled professional emigration, inadequate succession pipelines, and systemic disengagement across both public and private institutions (Khalid et al., 2021). The consequences are direct and serious disrupted care continuity, rising recruitment costs, patient safety risks, and accelerating burnout among remaining staff (Farooq et al., 2023; World Health Organization, 2024). For a city of Karachi's scale, serving tens of millions as Pakistan's primary healthcare hub under conditions of chronic understaffing, the compounding effects of workforce instability represent a systemic risk with serious public health implications (Mir et al., 2015; Naz et al., 2020).

While existing studies have examined factors like compensation, job satisfaction, and organizational commitment in Pakistani healthcare settings (Ali et al., 2023; Rehman, 2012), a critical limitation: each focuses on a narrow set of antecedents in isolation and rarely examines the mechanisms through which organizational practices translate into retention outcomes.

Individual studies have explored talent management (Collings & Mellahi, 2009;

McDonnell et al., 2017), organizational justice (Colquitt, 2001; Narayanan et al., 2019), and employee well-being (Bakker & Demerouti, 2017) as separate constructs across various organizational contexts. However, no study has simultaneously investigated their joint influence on health-worker retention within Karachi's specific institutional environment. This absence leaves a significant gap in both theoretical understanding and practical guidance (Gallardo-Gallardo & Thunnissen, 2016), denying practitioners the diagnostic clarity needed to identify which organizational levers drive retention. If left unaddressed, workforce instability will continue to compound precisely as healthcare demand accelerates a trajectory with long-term consequences for institutional capacity and public health.

This study addresses that gap by developing and testing an integrated model that captures the direct and mediated pathways through which talent management practices, organizational justice, and employee well-being influence retention outcomes. Grounded in Social Exchange Theory (Blau, 1964), Conservation of Resources Theory (Hobfoll, 1989), and the Job Demands-Resources Model (Bakker & Demerouti, 2017; Demerouti et al., 2001), this research offers both an empirical contribution and a contextually grounded theoretical advancement in healthcare human resource management.

3. Objectives of the study

The present study pursues the following four specific objectives:

- (a) To examine the relationship between talent management practices, organizational justice, employee well-being, and employee retention in healthcare sector hospitals in Karachi, Pakistan.
- (b) To analyze the direct impact of talent management practices, organizational justice, and employee well-being on employee retention in healthcare sector hospitals in Karachi, Pakistan.
- (c) To investigate the mediating role of employee well-being in the relationship between talent management practices and employee retention in healthcare sector hospitals in Karachi, Pakistan.
- (d) To examine the mediating role of employee well-being in the relationship between

organizational justice and employee retention in healthcare sector hospitals in Karachi, Pakistan.

4. Research Questions

Corresponding to the stated objectives, this study is guided by the following research questions:

- (a) What is the relationship between talent management practices, organizational justice, employee well-being, and employee retention in healthcare sector hospitals in Karachi, Pakistan?
- (b) What is the impact of talent management practices, organizational justice, and employee well-being on employee retention in healthcare sector hospitals in Karachi, Pakistan?
- (c) Does employee well-being mediate the relationship between talent management practices and employee retention in healthcare sector hospitals in Karachi, Pakistan?
- (d) Does employee well-being mediate the relationship between organizational justice and employee retention in healthcare sector hospitals in Karachi, Pakistan?

5. Significance of the Study

Theoretically, this study extends Social Exchange Theory, Conservation of Resources Theory, and the Job Demands-Resources Model into a healthcare workforce context rarely examined in Pakistani empirical literature. By integrating talent management practices, organizational justice, and employee well-being into a single unified model with mediated pathways, it moves beyond the single-predictor approaches that have dominated prior research advancing understanding of how multiple organizational factors interact to shape retention.

Practically, the findings offer direct value to hospital administrators and HR practitioner in Karachi's healthcare sector. By identifying whether and how talent management practices and justice perceptions improve retention through employee well-being, the study provides practitioners with actionable insight into which organizational levers to prioritize when designing retention interventions.

From a policy perspective, the findings are relevant to the Pakistan Ministry of National Health Services and provincial health departments. The evidence can inform retention frameworks that move beyond financial incentives toward organizational climate,

procedural fairness, and well-being infrastructure. Given Karachi's position as a representative case of broader urban healthcare challenges in the Global South, the findings also carry transferable relevance for other developing-country contexts facing similar workforce pressures.

2. Literature Review

The conceptual and empirical terrain surrounding health-worker retention is rich but fragmented, reflecting the multidisciplinary origins of the constructs that define it. This review synthesizes the most pertinent scholarship across four interconnected domains: talent management practices, organizational justice, employee well-being, and employee retention. In doing so, it identifies patterns, contradictions, and gaps that motivate and frame the present study.

2.1 Talent Management Practices

Talent management has evolved from a loosely defined managerial concern into a substantive area of strategic human resource management inquiry over the past two decades. Collings and Mellahi (2009) define it as the systematic process through which organizations identify pivotal positions, develop talent pools, and implement differentiated HR practices to sustain organizational performance. Building on this foundation, McDonnell et al. (2017) demonstrate that organizations with mature talent management systems exhibit significantly lower voluntary turnover, suggesting a robust link between structured talent investment and workforce stability. In healthcare settings, this relationship carries particular urgency given the long lead times required to develop specialized clinical competencies and the severe disruptions caused by losing experienced professionals (Gallardo-Gallardo & Thunnissen, 2016).

Empirical scholarship on healthcare-specific talent management remains developing. Christensen Hughes and Rog (2008) argue that effective talent management in health systems must be adapted to the unique professional cultures, hierarchical structures, and vocation-driven motivations of health workers. Nijs et al. (2014) further demonstrate that development programs aligned with employees' intrinsic professional values including clinical

specialization, research participation, and leadership opportunities are substantially more effective at reducing turnover than generic HR programs. In the South Asian context, Ali et al. (2023) and Farooq et al. (2023) confirm that perceived organizational investment in talent development positively influences commitment among Pakistani hospital employees, though their study is limited by its single-institution scope and neglect of mediating pathways. Hanif & Zaman, (2025) extend this line of inquiry by demonstrating that talent management practices, in conjunction with employee well-being, significantly predict retention outcomes in Karachi's healthcare sector, providing direct empirical grounding for the present study's integrated model.

A critical limitation of the broader literature is the scarcity of studies that examine talent management as a multi-dimensional construct in developing-country healthcare systems. Much of the extant scholarship originates from Western Europe, North America, or East Asia, raising legitimate concerns about transferability to contexts characterized by different institutional logics, resource constraints, and cultural values (Farndale et al., 2010). The present study addresses this gap by examining talent management empirically within Karachi's healthcare sector, contributing locally grounded evidence to an otherwise geographically skewed body of literature

2.2 Organizational Justice

Organizational justice, as conceptualized by Colquitt et al. (2001) compasses four distinct but interrelated dimensions: distributive justice (the fairness of outcomes), procedural justice (the fairness of the processes through which outcomes are determined), interpersonal justice (the respect and dignity afforded to employees), and informational justice (the adequacy of explanations provided for decisions). A substantial body of research links justice perceptions to a wide range of employee attitudes and behaviors, including organizational commitment, job satisfaction, organizational citizenship behavior, and turnover intentions (Greenberg, 1990).

In healthcare contexts specifically, the relevance of organizational justice is amplified by the emotionally demanding nature of clinical work

and the hierarchical power dynamics that characterize health systems. Tziner and Sharoni (2014) find that perceived procedural justice significantly moderates the relationship between emotional exhaustion and turnover intentions among nurses, suggesting that fair processes may buffer the retention risks associated with occupational stress. Similarly, research by Elamin & Alomaim, (2011) in Arab healthcare settings demonstrates that organizational justice exerts a stronger influence on retention than compensation alone, indicating that employees value dignified and fair treatment as highly as material rewards.

In the Pakistani context, research on organizational justice in healthcare remains limited. Rehman (2012) provide evidence that procedural and interpersonal justice perceptions are significantly negatively associated with turnover intentions among physicians in Lahore's public hospitals. However, this study does not examine the full dimensionality of justice nor its interactions with other organizational predictors of retention. The present study addresses this limitation by integrating organizational justice as a multi-dimensional predictor within a broader model that includes talent management practices and employee well-being.

2.3 Employee Well-Being

Employee well-being has been conceptualized through two broad philosophical traditions: the hedonic tradition, which emphasizes subjective happiness, positive affect, and life satisfaction (Diener, 1984; Diener et al., 2018), and the eudaimonic tradition, which centers on purpose, personal growth, and psychological flourishing (Deci & Ryan, 2000). In organizational research, these traditions converge in frameworks such as Warr, (1990) occupational well-being model, which identifies emotional exhaustion, job satisfaction, and autonomy as core facets of workplace health. In healthcare settings, where burnout and compassion fatigue are persistent occupational hazards, employee well-being has been consistently identified as a critical determinant of both individual performance and institutional retention (Bakker & Demerouti, 2017).

Empirical evidence firmly establishes the well-being-retention link. Danna and Griffin, (1999) demonstrate that employees reporting higher psychological and physical well-being are significantly more likely to express intentions to remain with their organizations. Building on the Job Demands-Resources Model, Bakker and Demerouti (2017) show that organizational resources including supervisory support, development opportunities, and perceived fairness directly enhance well-being, which in turn reduces burnout and voluntary turnover. Hanif & Zaman, (2025) extend this evidence to Karachi's healthcare sector, demonstrating that employee well-being not only directly predicts retention but also mediates the relationship between talent management practices and retention outcomes providing direct empirical support for the mediating model tested in the present study. Collectively, this body of scholarship positions well-being not merely as an outcome of organizational practices but as the primary mechanism through which those practices translate into retention behavior.

In developing-country contexts, well-being dimensions related to psychological safety, workload manageability, and professional recognition are particularly salient retention predictors, given the stressful and chronically under-resourced nature of healthcare delivery (Bhatt, 2020). Despite this, studies that empirically model employee well-being as a mediator in both the talent management-retention and organizational justice-retention pathways within South Asian healthcare settings remain absent from the literature. The present study directly addresses this gap.

2.4 Employee Retention

Employee retention, broadly defined as an organization's ability to maintain a stable, committed workforce over time Erez, (2001), has been studied from economic, psychological, and sociological perspectives. Early scholarship, exemplified by the work of March (1958): Mobley (1977), focused primarily on push factors, particularly job dissatisfaction and alternative employment opportunities, as the primary drivers of turnover and, by implication, retention. More recent scholarship has shifted toward understanding the organizational conditions that generate positive attachment,

examining constructs such as organizational embeddedness (Erez, 2001), perceived organizational support (Eisenberger et al., 1986), and relational psychological contracts (Rousseau, 1989) as determinants of employees' decisions to remain.

In the healthcare sector specifically, retention is shaped by a complex interplay of individual, organizational, and systemic factors. Research by Buchan et al. (2022) identifies opportunities for professional development, workplace justice, and organizational culture as among the most powerful institutional predictors of health-worker retention globally. In the Pakistani context, studies by (Khalid et al., 2021; Naqvi et al., 2013) point to inadequate compensation, poor career prospects, and unfavorable organizational climates as primary drivers of attrition, while noting that non-financial factors related to recognition, dignity, and organizational investment in staff development can be powerful countervailing forces.

Retention is not a static outcome but a dynamic process shaped by ongoing organizational exchanges, employee well-being, and perceptions of fairness and institutional investment (Eisenberger et al., 1986; Mitchell et al., 2001). This synthesis provides the conceptual foundation for the present study's integrated model, which positions talent management and organizational justice as drivers of retention through their effects on employee well-being, grounded in Social Exchange Theory, Conservation of Resources Theory and the Job Demands-Resources Model.

2.5 Theoretical Framework

This study integrates three complementary theories Social Exchange Theory (Blau, 1964), Conservation of Resources Theory (Hobfoll, 1989), and the Job Demands-Resources Model (Bakker & Demerouti, 2017; Demerouti et al., 2001) to explain how talent management practices and organizational justice influence health-worker retention. Each theory addresses a distinct dimension of this relationship, and together they provide a richer explanatory architecture than any single framework alone (Cropanzano & Mitchell, 2005).

Social Exchange Theory (SET) holds that organizational relationships are governed by reciprocity. When organizations invest in

employees through talent development, career advancement, and fair treatment, employees reciprocate with greater commitment and reduced turnover intentions (Blau, 1964; Eisenberger et al., 1986). In this study, talent management practices and organizational justice represent such investments, with employee well-being serving as the mediating pathway through which reciprocity translates into retention behavior.

Conservation of Resources Theory (COR) adds a resource logic to this exchange. Employees are motivated to acquire and protect valued resources psychological, organizational, and personal and resource loss is a primary driver of stress and disengagement (Hobfoll, 1989). Talent management and organizational justice function as resource-generating mechanisms that sustain well-being and support continued organizational membership. Their absence

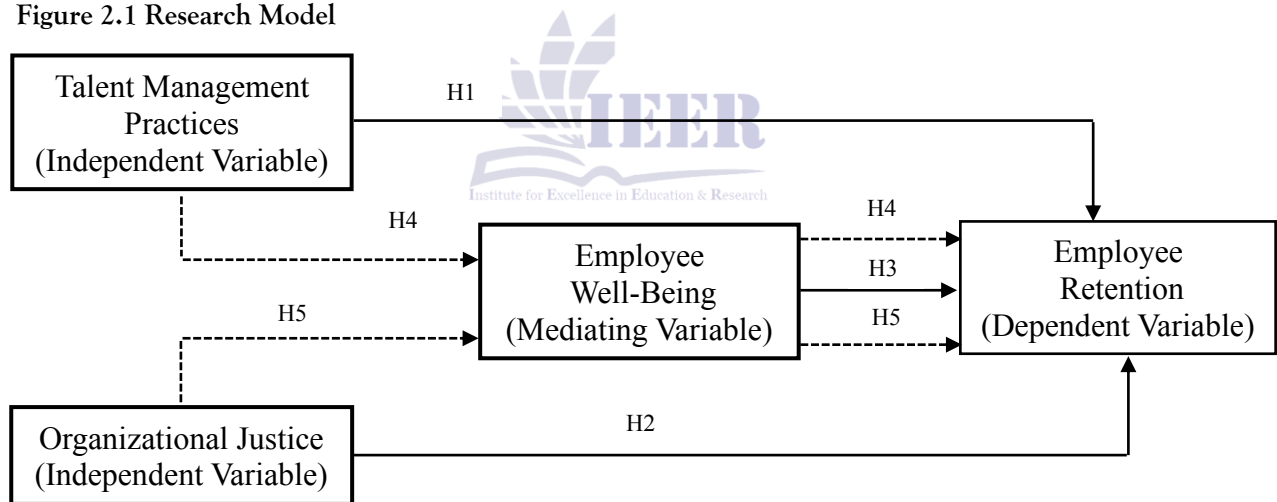
triggers resource depletion, accelerating burnout and voluntary turnover.

The Job Demands-Resources Model (JD-R) operates at the job design level, distinguishing between job demands that carry psychological costs and job resources that buffer those demands and facilitate engagement (Demerouti et al., 2001). In healthcare, where emotional labor and organizational complexity create intense demands, resources become the critical determinant of well-being (Bakker et al., 2014). This study positions talent management practices and organizational justice as key job resources that buffer healthcare work demands, sustain well-being, and promote retention.

Together, SET explains the relational exchange logic, COR explains the resource accumulation mechanisms, and JD-R explains the job-level pathways producing an integrated, multi-level framework for understanding retention in Karachi's healthcare sector.

2.6 Research Model

Figure 2.1 Research Model



Note: Direct Effect —————>
 Indirect Effect (Mediating through Employee Well-Being) - - - - ->
 H4 Indirect Effect: TMP → EWB → ER
 H5 Indirect Effect: OJ → EWB → ER

Source Developed by author

2.7 Hypothesis Development

Grounded in Social Exchange Theory, organizations that invest in structured talent management practices signal to employees that they are valued contributors whose growth and performance matter to the institution. Employees who perceive such investment tend to reciprocate through heightened

organizational commitment and reduced turnover intentions (Eisenberger et al., 1986). Empirical evidence from healthcare settings, including studies by Christensen Hughes and Rog (2008), McDonnell et al. (2017), and Ali et al. (2023), consistently supports this relationship. **It is therefore hypothesized:**

H1: Talent management practices has a significant positive effect on employee retention in healthcare sector hospitals in Karachi, Pakistan.

Organizational justice research consistently demonstrates that employees who perceive their organizations as fair across distributive, procedural, interpersonal, and informational dimensions develop greater affective commitment and are less likely to voluntarily exit (Colquitt et al., 2001; Greenberg, 1990). In healthcare contexts characterized by hierarchical power imbalances, justice perceptions may carry heightened salience in shaping retention decisions (Rehman, 2012; Tziner & Sharoni, 2014). **It is therefore hypothesized:**

H2: Organizational justice has a significant positive effect on employee retention in healthcare sector hospitals in Karachi, Pakistan. A growing body of evidence establishes employee well-being as a direct predictor of retention outcomes. Employees who report greater psychological flourishing, positive affect, and occupational health are more likely to express intentions to remain with their organizations and less likely to seek alternative employment (Bakker & Demerouti, 2017; Danna & Griffin, 1999). In healthcare settings, where burnout is a major driver of attrition, the protective effects of well-being on retention are particularly pronounced (Dyrbye et al., 2017; Maslach & Leiter, 2016; Shanafelt et al., 2015). **It is therefore hypothesized:**

H3: Employee well-being has a significant positive effect on employee retention in healthcare sector hospitals in Karachi, Pakistan. Conservation of Resources Theory (Hobfoll, 1989) provides the theoretical basis for H4. Talent management practices including development opportunities, succession planning, and performance recognition function as organizational resources that replenish employees' psychological and professional resource reservoirs. When employees feel supported and developed, resource loss is reduced and well-being is enhanced, generating the motivational conditions necessary for sustained organizational commitment (Hobfoll, 1989; McDonnell et al., 2017). **It is therefore hypothesized:**

H4: Employee well-being mediates the relationship between talent management practices and employee retention in healthcare sector hospitals in Karachi, Pakistan.

Organizational justice perceptions encompassing the fairness of outcomes, processes, and interpersonal treatment are similarly theorized to enhance employee well-being by reducing workplace uncertainty, affirming professional worth, and strengthening organizational membership (Colquitt et al., 2001). Employees who perceive their organizations as just are more likely to experience the psychological safety and positive affect that sustain retention decisions. This mediating pathway has received limited empirical scrutiny in South Asian healthcare contexts, making it a particularly valuable focus for the present study. **It is therefore hypothesized:**

H5: Employee well-being mediates the relationship between organizational justice and employee retention in healthcare sector hospitals in Karachi, Pakistan.

3. Methodology

3.1 Research design

This study employed a quantitative, cross-sectional survey design to examine relationships between talent management practices, organizational justice, employee well-being, and health-worker retention in Karachi's healthcare sector. A quantitative approach enables systematic measurement of theoretical constructs and statistical hypothesis testing (Creswell & Creswell, 2017), while the cross-sectional design captures a contemporaneous snapshot of workforce perceptions across multiple institutions. Although cross-sectional designs limit causal inference, they are widely accepted for testing mediation models in organizational research (Podsakoff et al., 2003).

3.2 Sample Size and Sampling Technique

The target population comprised full-time health workers including physicians, nurses, allied health professionals, and patient-facing administrative staff employed at public and private hospitals in Karachi. Hospitals were selected through purposive sampling, requiring a minimum bed capacity of 100, at least 200 full-time staff, and multi-department operations.

A stratified random sampling technique was employed to ensure proportional representation across three strata: hospital type (public vs. private), professional category (clinical vs. non-clinical), and gender.

3.3 Instrument and Materials

Data were collected using a self-administered, structured questionnaire comprising five sections corresponding to the study's focal constructs. All items were rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). A demographic section captured gender, age, educational qualification, professional category, and years of tenure.

Talent management practices were assessed using scales adapted from (El Dahshan et al., 2018; Groves, 2018; Jayaraman et al., 2018; Naomi W. Njoroge, 2012; Obeidat et al., 2018). Employee well-being was measured using scales drawn from (Chang et al., 2024; Netemeyer et al., 2018; Tennant et al., 2007). Employee retention was assessed using a scale adapted from Kumar and Santhosh (2014). Organizational justice was measured using scales from (Moorman, 1991; Niehoff & Moorman, 1993).

3.4 Data Collection Procedure

Data were collected from 383 healthcare professionals including doctors, nurses, allied

health staff, and administrative employees across public and private hospitals in Karachi using a structured, self-administered questionnaire distributed through both electronic and in-person channels.

3.5 Data Analysis Technique

Data were analyzed using SPSS. Descriptive statistics summarized respondent characteristics, while Pearson correlation examined relationships among study variables. Multiple regression tested the direct effects of talent management practices, organizational justice, and employee well-being on retention. Mediation analysis was conducted using Hayes' PROCESS macro (Model 4) to test the mediating role of employee well-being.

4. Results

4.1 Descriptive Statistics

Descriptive statistics summarize the fundamental characteristics of collected data through measures of central tendency (mean, median, mode), variability (standard deviation, variance), and distribution shape (skewness, kurtosis), providing essential groundwork for subsequent inferential analyses (Field, 2024; Gravetter & Wallnau, 2017; Tabachnick & Fidell, 2019).

4.2 Data Normality

Table 4.1 Data Normality

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
TMP	383	22.00	85.00	63.7258	10.98598	-.331	.125	-.323	.249
EWB	383	28.00	85.00	59.1436	8.88040	.079	.125	.604	.249
ER	383	9.00	30.00	22.2037	4.38229	-.103	.125	-.765	.249
OJ	383	19.00	67.00	49.4204	9.35139	-.258	.125	-.362	.249
Valid N (listwise)	383								

Note: Talent Management Practices (TMP), Employee Well-being (EWB), Employee Retention (ER), Organizational Justice (OJ)

Descriptive statistics were computed for all four study variables across 383 respondents, as presented in Table 4.1. Talent management

(TMP) recorded the highest mean (M = 63.73, SD = 10.99), indicating that respondents generally perceived their organizations as

moderately investing in talent practices. Organizational justice (OJ) followed ($M = 49.42$, $SD = 9.35$), suggesting moderate but inconsistent perceptions of fairness across institutions. Employee well-being (EWB) returned a mean of 59.14 ($SD = 8.88$), reflecting adequate but not high levels of physical, psychological, and professional well-being among respondents. Employee retention (ER) recorded a mean of 22.20 ($SD = 4.38$), indicating

moderate retention intentions across the sample.

Distribution diagnostics confirmed acceptable normality across all variables. Skewness values ranged from -0.331 (TMP) to 0.079 (EWB), and kurtosis values ranged from -0.765 (ER) to 0.604 (EWB), all falling within the acceptable thresholds of ± 2 for skewness and ± 7 for kurtosis (Hair, 2009). These results confirm that the data met the normality assumptions required for subsequent regression and mediation analyses.

4.3 Reliability Statistics

Table 4.2 Reliability Statistics (Talent Management Practices, Employee Well-being, Employee Retention, Organizational Justice)

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TMP	130.7676	345.388	.584	.389	.694
EWB	135.3499	386.401	.686	.472	.617
ER	172.2898	566.342	.571	.331	.740
OJ	145.0731	417.298	.523	.309	.714

Note: Talent Management Practices (TMP), Employee Well-being (EWB), Employee Retention (ER), Organizational Justice (OJ).

Reliability analysis was conducted using Cronbach's alpha to assess the internal consistency of all study constructs. Results indicated acceptable to good reliability across all four variables. Employee well-being returned the highest inter-item consistency ($\alpha = 0.617$ if deleted), followed by organizational justice ($\alpha = 0.714$), talent management practices ($\alpha = 0.694$), and employee retention ($\alpha = 0.740$). Corrected item-total correlations ranged from 0.523 (OJ) to 0.686 (EWB), all exceeding the minimum threshold of 0.30, confirming that each construct's items adequately measure their intended dimension (Field, 2024). These results

support the internal consistency of the measurement instrument and justify proceeding with inferential analyses

4.4 Correlation Analysis

Pearson correlation analysis was employed to examine bivariate relationships among study variables, as data met the normality assumptions required for this technique (Field, 2024). Correlation coefficients range from -1 to +1, indicating the direction and strength of association between variables, with values closer to ± 1 reflecting stronger relationships (Hinkle et al., 2003).

Table 4.3 Correlation Analysis (Talent Management Practices, Employee Well-being, Employee Retention, Organizational Justice)

Correlations					
		TMP	EWB	ER	OJ
TMP	Pearson Correlation	1	.573**	.495**	.385**
	Sig. (2-tailed)		.000	.000	.000
	N	383	383	383	383
EWB	Pearson Correlation	.573**	1	.502**	.533**
	Sig. (2-tailed)	.000		.000	.000
	N	383	383	383	383

ER	Pearson Correlation	.495**	.502**	1	.394**
	Sig. (2-tailed)	.000	.000		.000
	N	383	383	383	383
OJ	Pearson Correlation	.385**	.533**	.394**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	383	383	383	383

** . Correlation is significant at the 0.01 level (2-tailed).

Note: Talent Management Practices (TMP), Employee Well-being (EWB), Employee Retention (ER), Organizational Justice (OJ)

All four variables demonstrated statistically significant positive correlations at the 0.01 level. Talent management practices ($r = 0.495$) and employee well-being ($r = 0.502$) showed the strongest associations with retention, while organizational justice recorded a moderate relationship ($r = 0.394$). The strongest correlation in the matrix was between talent management practices and employee well-being ($r = 0.573$), followed by organizational justice and employee well-being ($r = 0.533$), suggesting that well-being is substantially shaped by both organizational practices lending preliminary support to its proposed mediating role.

4.5 Regression Analysis

Regression analysis is a statistical technique that estimates the nature and strength of relationships between independent and dependent variables, enabling researchers to assess the predictive contribution of each predictor on a defined outcome (Field, 2024). Multiple regression extends this approach by simultaneously examining the effects of two or more independent variables, providing a comprehensive picture of how combined predictors explain variance in the dependent variable (Hair, 2009).

Table 4.4 Model Summary of (Talent Management Practices, Employee Well-being, Employee Retention, Organizational Justice)

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Changed	df1	df2	Sig. Change	
1	.575 ^a	.331	.326	3.59863	.331	62.497	3	379	.000	1.983

a. Predictors: (Constant), TMP, OJ, EWB

b. Dependent Variable: ER

Note: Talent Management Practices (TMP), Employee Well-being (EWB), Employee Retention (ER), Organizational Justice (OJ)

The model summary indicates that talent management practices, organizational justice, and employee well-being jointly explained 33.1% of the variance in employee retention ($R^2 = 0.331$, Adjusted $R^2 = 0.326$), with the overall model reaching statistical significance ($F(3, 379)$

$= 62.497, p < .001$). The Durbin-Watson statistic of 1.983 confirmed the absence of autocorrelation in the residuals, satisfying a key assumption of multiple regression (Field, 2024; Hair, 2009).

Table 4.5 ANOVA (Talent Management Practices, Employee Well-being, Employee Retention, Organizational Justice)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2428.017	3	809.339	62.497	.000 ^b
	Residual	4908.097	379	12.950		
	Total	7336.115	382			

a. Dependent Variable: ER
b. Predictors: (Constant), TMP, OJ, EWB

The ANOVA results confirmed the overall statistical significance of the regression model ($F(3, 379) = 62.497, p < .001$), indicating that talent management practices, organizational justice, and employee well-being collectively constitute a significant set of predictors of employee retention. The regression sum of

squares (2428.017) relative to the residual sum of squares (4908.097) reflects that while the model captures a meaningful portion of explained variance, additional organizational factors beyond those examined may further account for retention outcomes.

Table 4.6 Coefficients^a (Talent Management Practices, Employee Well-being, Employee Retention, Organizational Justice)

Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.912	1.358		2.880	.004	1.241	6.582		
	EWB	.127	.028	.258	4.583	.000	.073	.182	.557	1.794
	OJ	.068	.023	.144	2.887	.004	.022	.114	.707	1.415
	TMP	.116	.021	.292	5.659	.000	.076	.157	.663	1.508

a. Dependent Variable: ER

Multiple regression analysis examined the direct effects of talent management practices (TMP), organizational justice (OJ), and employee well-being (EWB) on employee retention (ER). All three predictors exerted statistically significant positive effects, as presented in Table 4.6. Talent management practices was the strongest predictor ($\beta = 0.292, B = 0.116, p < .001, 95\% \text{ CI } [0.076, 0.157]$), indicating that healthcare professionals who perceive genuine organizational investment in their development and career growth are substantially more likely to remain. Employee well-being followed closely ($\beta = 0.258, B = 0.127, p < .001, 95\% \text{ CI } [0.073, 0.182]$), reflecting that in high-demand healthcare settings, how supported and healthy

employees feel daily is as critical to retention as career incentives. Organizational justice, while the weakest predictor, remained significant ($\beta = 0.144, B = 0.068, p < .01, 95\% \text{ CI } [0.022, 0.114]$), suggesting that perceived fairness in decisions and treatment serves as a foundational condition that underpins the effectiveness of other organizational investments. Collinearity diagnostics confirmed no multicollinearity concerns, with tolerance values between 0.557–0.707 and all VIF values below 5 (Hair, 2009), supporting the independent contribution of each predictor. **These findings support H1, H2, and H3.**

Table 4.7 Total, Direct and Indirect Effect (Talent Management Practices, Employee Well-being, Employee Retention)

Paths	Path relationship	B-value	t-value	St. Error	Sig	95% CI (LLCI, ULCI)
Path c	TMP→ER (Total Effect)	0.703	17.818	0.0395	.000	(0.6256, 0.7808)
Path a	TMP→EWB	0.627	18.055	0.0347	.000	(0.5584, 0.6949)
Path b	EWB→ER	0.406	7.154	0.0567	.000	(0.2941, 0.5171)

Path c'	TMP→ER (Direct Effect)	0.449	8.763	0.0512	.000	(0.3482, 0.5498)
Indirect path	TMP→EWB→ER	0.254	-	0.0556	-	(0.1579, 0.3814)

Note: (Talent Management Practices (TMP), Employee Well-Being (EWB), Employee Retention (ER)).

The mediation analysis, conducted using Hayes' PROCESS macro (Model 4), examined the mediating role of employee well-being in the relationship between talent management practices and employee retention. The total effect of talent management practices on retention was significant (B = 0.703, t = 17.818, p < .001, 95% CI [0.626, 0.781]), confirming a strong direct relationship prior to introducing the mediator.

Following the inclusion of employee well-being, the direct effect of talent management practices on retention remained significant but reduced (B = 0.449, t = 8.763, p < .001, 95% CI [0.348, 0.550]), while the indirect effect through

employee well-being was also significant (B = 0.254, 95% CI [0.158, 0.381]). Since the confidence interval for the indirect effect excluded zero and the direct effect remained significant, employee well-being partially mediates the relationship between talent management practices and employee retention. This indicates that talent management practices influence retention both directly and indirectly through its positive effect on employee well-being (Path a: B = 0.627, p < .001), which in turn significantly predicts retention (Path b: B = 0.406, p < .001). **Accordingly, H4 is supported**

Table 4.8 Total, Direct and Indirect Effect (Organizational Justice, Employee Well-being, Employee Retention)

Paths	Path relationship	B-value	t-value	St. Error	Sig	95% CI (LLCI, ULCI)
Path c	OJ → ER (Total Effect)	0.1847	7.5694	0.0244	0.000	(0.1367, 0.2326)
Path a	OJ → EWB	0.5060	9.4457	0.0536	0.000	(0.4007, 0.6113)
Path b	EWB → ER	0.2013	7.9555	0.0253	0.000	(0.1515, 0.2510)
Path c'	OJ → ER (Direct Effect)	0.0828	3.1263	0.0265	0.0019	(0.0307, 0.1349)
Indirect path	OJ → EWB → ER	0.1018	-	0.0179	-	(0.0681, 0.1386)

The mediation analysis, conducted using Hayes' PROCESS macro (Model 4), examined the mediating role of employee well-being in the relationship between organizational justice and employee retention. The total effect of organizational justice on retention was significant (B = 0.185, t = 7.569, p < .001, 95% CI [0.137, 0.233]), confirming a meaningful direct relationship prior to introducing the mediator.

Following the inclusion of employee well-being, the direct effect of organizational justice on retention reduced substantially but remained significant (B = 0.083, t = 3.126, p < .01, 95% CI [0.031, 0.135]), while the indirect effect through employee well-being was also significant (B =

0.102, 95% CI [0.068, 0.139]). Since the confidence interval for the indirect effect excluded zero and the direct effect, while reduced, remained significant, employee well-being partially mediates the relationship between organizational justice and employee retention.

However, the notable reduction in the direct effect from 0.185 to 0.083 indicates that employee well-being carries the larger share of the justice-retention relationship, suggesting that organizational justice primarily influences retention through its positive effect on employee well-being (Path a: B = 0.506, p < .001), which in turn significantly predicts retention (Path b: B = 0.201, p < .001). This pattern reflects a strong

mediating presence, bordering on full mediation. **Accordingly, H5 is supported.**

5. Discussion and Conclusion

5.1 Discussion

This study investigated the direct and mediated effects of talent management practices, organizational justice, and employee well-being on health-worker retention in public and private hospitals in Karachi, Pakistan. Guided by Social Exchange Theory, Conservation of Resources Theory, and the Job Demands-Resources Model, all five hypotheses were supported.

Talent management practices was the strongest predictor of retention showing that employees who perceive investment in their development are more likely to remain with their organizations. This supports prior research and reflects Karachi's healthcare context, where limited career growth opportunities make organizational support especially important.

Organizational justice also had a significant positive effect on retention although weaker than talent management practices. This suggests that fairness matters, but its influence is more indirect. In Karachi hospitals, where decision-making is often hierarchical, justice appears to shape retention mainly by improving employee well-being.

Employee well-being had a strong direct effect on retention indicating that retention depends not only on career-related factors but also on employees' psychological and physical health. Moderate well-being scores further suggest that many healthcare workers operate under stressful conditions with limited support.

The mediation results confirmed that employee well-being partially mediated the relationship between talent management practices and retention and also mediated the relationship between organizational justice and retention. These findings show that talent management practices influences retention both directly and indirectly through well-being, while organizational justice affects retention mainly by enhancing employees' well-being.

Overall, the study highlights the combined importance of development opportunities, fairness, and well-being in improving retention. For hospital administrators, these factors should

be treated as interconnected components of a comprehensive retention strategy.

This study has some limitations. Its cross-sectional design limits causal interpretation, self-reported data may introduce common method bias, and the Karachi-based sample restricts generalizability. Future research should use longitudinal designs, objective retention measures, and broader samples to strengthen the findings.

5.2 Conclusion

The study concludes that talent management practices, organizational justice, and employee well-being all play significant roles in retaining healthcare workers in Karachi hospitals. Among these, talent management practices had the strongest influence, while employee well-being served as a key mechanism linking both talent management practices and organizational justice to retention. These findings emphasize that effective retention strategies in healthcare must combine professional development, fair organizational practices, and support for employee well-being.

5.3 Implications

5.3.1 Theoretical Implications

This study makes three key theoretical contributions. First, it extends Social Exchange Theory, Conservation of Resources Theory, and the Job Demands-Resources Model to a developing-country healthcare context, showing that these frameworks are relevant in Karachi's hospital sector. Second, it highlights the mediating role of employee well-being by showing that well-being partially explains the effect of talent management practices on retention and largely explains the effect of organizational justice on retention. This provides a more nuanced understanding of how retention is shaped. Third, by integrating multiple theories into one model, the study offers a more comprehensive explanation of employee retention than single-theory approaches.

5.3.2 Practical Implications

The findings offer clear guidance for hospital administrators and HR practitioner. Since talent management practices was the strongest predictor of retention, hospitals should

strengthen training, career development, mentoring, and performance recognition systems. Employee well-being should also be prioritized through workload management, psychosocial support, and healthier working conditions, as it directly influences retention and mediates other relationships. In addition, organizational justice should be improved through transparent decision-making, consistent HR practices, and respectful treatment of staff. For policymakers, the results suggest that retention strategies should go beyond financial incentives and include development opportunities, fair work environments, and well-being support.

5.4 Limitations and Future Research Directions

This study has several limitations. First, its cross-sectional design limits causal interpretation, so future studies should use longitudinal designs to examine changes over time. Second, the use of self-reported data may introduce common method bias; future research should combine survey responses with objective HR records or multi-source data. Third, because the sample was limited to Karachi, the findings may not be generalizable to other cities or healthcare settings, so comparative studies across regions are needed. Fourth, the study did not examine possible moderating factors such as gender, tenure, or professional category, which future research could explore. Finally, future studies should strengthen measurement validity by reporting construct-level reliability, composite reliability, and average variance extracted.

Despite these limitations, the study provides an important contribution to understanding health-worker retention in Karachi's healthcare sector and offers a useful foundation for future research and practice.

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