

The Impact of Organizational Justice on Turnover Intention Among Primary Healthcare Workers: The Mediating Role of Work Motivation

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Background: Adequate staffing of primary healthcare workers (PHCWs) is essential for strengthening healthcare systems, yet high turnover intention among these workers presents a significant challenge. While existing strategies primarily target economic incentives and career progression, this study proposes that enhancing organizational justice could offer a novel and impactful approach to retention. Drawing on equity theory and self-determination theory, the study examines how organizational justice influences turnover intention and the mediating roles of both the intensity and type of work motivation.

Methods: This is a cross-sectional study design. A multi-stage cluster sampling method was utilized to administer a questionnaire survey to 1,200 PHCWs from 36 primary health institutions in Shandong Province, China.

Results: Multivariate linear regression analysis revealed that organizational justice significantly reduces turnover intention among PHCWs ($\beta = -0.435$, $p < 0.001$). Among its three dimensions, distributive justice ($\beta = -0.203$, $p < 0.001$) and procedural justice ($\beta = -0.177$, $p < 0.01$) had significant impacts on turnover intention, whereas interactional justice did not. The study also confirmed the mediating role of work motivation, with work motivation type accounting for 18.2% of the total effect, exerting a greater influence than work motivation intensity, which accounted for 13.8% of the total effect.

Conclusion: This study finds that organizational justice, especially distributive and procedural justice, reduces turnover intention among PHCWs in China. Work motivation mediates this effect, with motivation type having a stronger influence than motivation intensity. Enhancing organizational justice through transparent systems for compensation, promotion, and inclusive decision-making can foster the internalization of work motivation, providing a sustainable approach to improving retention and supporting the stability of the primary healthcare workforce.

Keywords: organizational justice, turnover intention, work motivation, primary healthcare worker

Introduction

Primary healthcare workers (PHCWs) are health professionals who provide essential healthcare services at the community level, serving as the first point of contact for patients and offering comprehensive, continuous, and family- and community-based medical services.¹ Ensuring sufficient staffing of PHCWs is vital for the resilience of primary healthcare systems and the improvement of overall health outcomes.² Despite significant policy efforts and financial investments aimed at stabilizing the primary healthcare workforce in China, turnover intention among PHCWs remains critically high, leading to workforce shortages and undermining the quality and efficiency of healthcare services.³⁻⁵ Stabilizing the PHCW workforce and reducing turnover intention have thus become pressing priorities for policymakers.

While existing interventions predominantly focus on economic incentives and career advancement opportunities,^{6,7} exploring institutional strategies that enhance a sense of organizational justice among PHCWs may offer a novel and impactful approach.

Turnover intention, widely recognized as a robust predictor of actual turnover behavior, is frequently analyzed as a key indicator of employee stability in organizational research.⁸ Among the factors influencing turnover intention, organizational justice — defined as individuals' perceptions of fairness within the workplace⁹— emerges as a critical determinant.¹⁰ Organizational justice encompasses three dimensions: distributive justice (fairness of outcome distributions), procedural justice (fairness of processes leading to outcomes), and interactional justice (fairness in interpersonal treatment during the implementation of procedures).¹¹

When PHCWs perceive unfairness in any of the organizational justice dimensions, they may experience dissatisfaction, frustration, and heightened levels of stress,^{12,13} potentially leading to turnover intention even in the face of improvements in other motivational factors, such as compensation or working conditions.¹⁴ While the impact of organizational justice on turnover intention is well-documented,¹⁵ there is a paucity of research focused specifically on PHCWs, whose unique work responsibilities and environments create distinct challenges closely tied to their perceived organizational justice. For instance, the strain of extensive workloads, coupled with limited access to resources and professional development,¹⁶ can exacerbate feelings of unfairness, making organizational justice a particularly salient issue for PHCWs.

Moreover, the mechanisms through which organizational justice impacts turnover intention require further exploration. While Previous research has identified job satisfaction,¹⁷ organizational commitment,¹⁸ job burnout,¹⁹ organizational support,²⁰ and employee engagement²¹ as mediating variables, few studies have focused on the mediating role of work motivation. To date, only one study by Younas²² has explored this aspect, demonstrating that both extrinsic and intrinsic work motivation mediate the relationship between organizational justice and turnover intention among 141 employees in the pharmaceutical industry. However, this study did not explore the mediating role of overall motivation intensity, and while it acknowledged different types of motivation, it adhered to the traditional extrinsic-intrinsic dichotomy. In contrast, Self-Determination Theory (SDT) conceptualizes work motivation as a continuum rather than a dichotomy, with higher levels of internalization leading to more favorable work outcomes.²³ Recognizing this limitation and the need for a more nuanced understanding, the present study will analyze both the overall work motivation intensity and the degree of its internalization as mediators between organizational justice and turnover intention.

This study seeks to address a central question: To what extent does enhancing perceived organizational justice among PHCWs impact their work performance, and can variations in the intensity and type of work motivation mediate this relationship? The specific objectives of this study are threefold: (1) to investigate the level of turnover intention among PHCWs in China; (2) to examine the direct effect of organizational justice on turnover intention; and (3) to explore whether different intensity and type of work motivation function as mediators in the relationship between organizational justice and turnover intention. By advancing the understanding of the underlying causes and mechanisms of turnover intention among PHCWs, this study aims to inform the development of targeted motivational strategies that may reduce turnover intention and thereby support greater stability in primary healthcare systems.

Conceptual Framework

In this section, we theoretically examine the relationship between organizational justice and turnover intention, as well as the mediating role of work motivation in this connection. This analysis primarily draws on two classic motivational theories: Equity Theory and Self-Determination Theory. We also integrate insights from prior empirical studies to support our argument, ultimately proposing the theoretical framework for this study (see [Figure 1](#)).

The Relationship Between Organizational Justice and Turnover Intention

The relationship between organizational justice and turnover intention is well-established in organizational behavior research. Organizational justice reflects PHCWs' perceptions of fairness in resource distribution, decision-making processes, and interpersonal interactions, which are key to their psychological contract with the organization.¹²

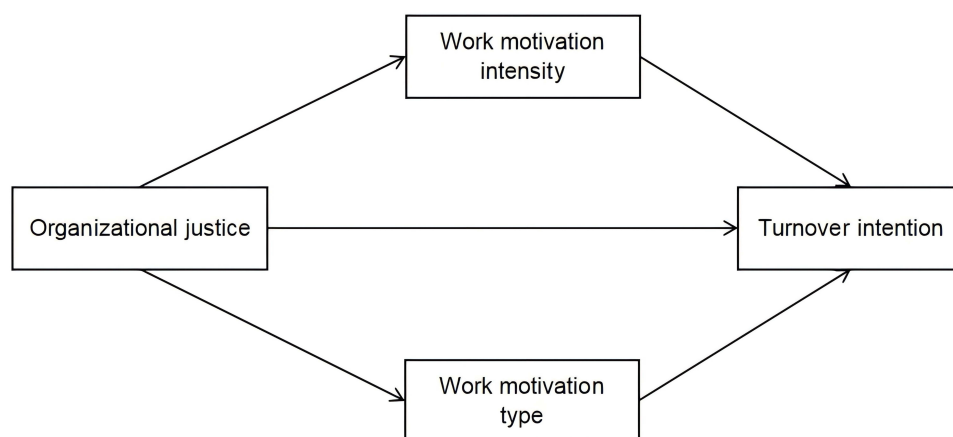


Figure 1 Conceptual framework of this study.

Distributive justice pertains to the perceived fairness of outcomes, such as salaries and promotions, ensuring that individuals feel appropriately rewarded for their efforts. Procedural justice concerns the transparency and consistency of processes leading to these outcomes, affecting trust in decision-making. Interactional justice involves respectful and dignified treatment by superiors, impacting the sense of belonging and interpersonal satisfaction.¹⁰ When these dimensions of fairness are met, PHCWs' commitment to the organization is strengthened; conversely, perceived unfairness leads to increased turnover intention.²⁴ Empirical studies support this relationship. For instance, Byrne²⁵ found that both procedural and interactional justice were negatively associated with turnover intention among hospital employees. Similarly, Coniglio²⁶ reported a moderate negative relationship between distributive justice and turnover intention among physician assistants, while Lee²⁷ observed that organizational justice had a similar effect on turnover intention among hospital nurses in Korea. Based on this evidence, we propose the following hypothesis:

Hypothesis 1: Organizational justice negatively affects turnover intention.

Work Motivation Intensity as a Mediator Between Organizational Justice and Turnover Intention

According to Adams' Equity Theory, when individuals perceive a lack of organizational justice, the psychological contract—rooted in fair exchange and reciprocity—is breached. This breach often triggers negative emotions, such as disappointment, anger, and distrust, which may lead to retaliatory behaviors, most notably a reduced tendency to exert effort, as a means of restoring psychological balance.²⁸ For instance, research shows that perceived unfair pay can lead to decreased work efficiency or intentional task delays.²⁹ Similarly, procedural injustice can erode trust in the organization, diminishing job involvement and consequently reducing work motivation.^{30,31} In summary, perceived injustice can reduce the work motivation intensity among PHCWs, which in turn leads to increased turnover intention.³² Based on these insights, we propose the following hypothesis:

Hypothesis 2: Work motivation intensity mediates the relationship between organizational justice and turnover intention.

Work Motivation Type as a Mediator Between Organizational Justice and Turnover Intention

Organizational justice not only influences the work motivation intensity but also affects its type, particularly by promoting the internalization of work motivation. According to SDT, fulfilling the basic psychological needs of autonomy, competence, and relatedness fosters intrinsic motivation and facilitates the internalization of extrinsic motivation.³³ A fair organizational environment, by meeting these needs, plays a crucial role in this process.³⁴ For instance, distributive justice enhances PHCWs' sense of competence by ensuring their contributions are justly rewarded.

Procedural justice supports autonomy by involving employees in decision-making processes,³⁵ while interactional justice fulfills the need for relatedness through respectful and sincere treatment by leaders. When the basic psychological needs of PHCWs are satisfied through perceived organizational justice, motivation shifts from being externally controlled to more autonomous, which has been shown to be more effective in reducing turnover intention compared to controlled motivation.³⁶ Therefore, we propose the following hypothesis:

Hypothesis 3: Work motivation type mediates the relationship between organizational justice and turnover intention.

Methods

Sample and Procedure

This study employed a multi-stage cluster sampling method. To represent different regions with varying levels of economic development in Shandong province, three cities were selected: Yantai in the east, Zibo in the central region, and Liaocheng in the west. Within each city, three districts or counties were randomly selected, followed by the random selection of four primary healthcare institutions per district or county, resulting in a total of 36 institutions. Surveys were conducted among PHCWs who were present on the day of data collection, excluding those off duty or on leave. Only official employees were included in the survey, while interns and staff from higher-level hospitals were excluded. Data collection occurred in July 2023 using a self-administered questionnaire. Trained surveyors provided instructions, obtained informed consent, and ensured the accuracy of completed questionnaires. Of the 1271 distributed, 1200 valid responses were collected, yielding a 94.4% response rate. The study was conducted in accordance with the Declaration of Helsinki and received ethical approval from the Ethics Committee of Shandong First Medical University (R202305160130).

Measure

Turnover Intention

Turnover intention was measured using the scale developed by Mobley,³⁷ which was translated and validated by Weng Qingxiong³⁸ for use in the Chinese context. This scale comprises four items, rated on a 5-point Likert scale, with total scores ranging from 4 to 20, where higher scores indicate stronger turnover intention. The scale demonstrated acceptable reliability with a Cronbach's alpha of 0.828.

Organizational Justice

Organizational justice was measured using the Chinese version of the Organizational Justice Scale, originally developed by Niehoff and Moorman³⁹ and translated by He Xuan,⁴⁰ who validated its reliability and applicability in the Chinese context. This scale includes 14 items across three dimensions: distributive justice (4 items, Cronbach's $\alpha = 0.947$), procedural justice (4 items, Cronbach's $\alpha = 0.905$), and interactional justice (6 items, Cronbach's $\alpha = 0.936$). Responses were recorded on a 6-point Likert scale, with total possible scores for the three dimensions being 24, 24, and 36, respectively, where higher scores reflect a greater perception of justice. The Cronbach's α coefficient for the entire scale, encompassing all items across its three dimensions, was exceptionally high at 0.968, underscoring the scale's strong internal consistency.

Work Motivation

Work motivation was assessed using an adapted version of the Chinese Work Motivation Scale for Healthcare Workers (WMSHW), originally based on SDT. The scale was enhanced by incorporating the amotivation dimension from the Multidimensional Work Motivation Scale (MWMS) by Gagné,⁴¹ which involved a rigorous translation and validation process. The final scale consists of 18 items across five dimensions: intrinsic motivation (3 items, Cronbach's $\alpha = 0.932$), integrated regulation motivation (3 items, Cronbach's $\alpha = 0.887$), introjected motivation (2 items, Cronbach's $\alpha = 0.836$), external motivation (7 items, Cronbach's $\alpha = 0.852$), and amotivation (3 items, Cronbach's $\alpha = 0.915$). Each item was rated on a 7-point Likert scale, with higher scores indicating stronger work motivation intensity. The scores for the five dimensions were calculated by summing the scores of the items within each dimension and then dividing by the number

of items. Building on previous research,^{42,43} the measurement of work motivation intensity was conducted using composite scores, which involve summing the scores of the four dimensions, excluding the amotivation dimension. The formula is as follows:

$$\text{Work Motivation Intensity (WMI)} = \text{Intrinsic Motivation} + \text{Integrated Regulation Motivation} + \text{Introjected Motivation} + \text{External Motivation}$$

For measuring the type of motivation, we used the Self-Determination Index (SDI), which has been developed in previous research.⁴⁴ The SDI was calculated using the following formula:

$$\text{SDI} = 3 \times \text{Intrinsic Motivation} + 1.5 \times \text{Integrated Regulation Motivation} - 1 \times \text{Introjected Motivation} - 2 \times \text{External Motivation} - 3 \times \text{Amotivation}$$

Control Variable

To control for potential confounding factors, several socio-demographic variables were included as covariates: gender (male, female), age (under 30, 30–39, 40–49, above 49), education (high school or below, junior college, university or above), professional title (none, junior, intermediate, senior), occupation (doctor, nurse, public health, medical technician, pharmacy, administrative staff), and organization (community health center, township hospital).

Data Analysis

Data were analyzed using descriptive statistics, analysis of variance, and multiple linear regression, conducted with SPSS version 22.0. Mediation analysis followed Baron and Kenny's⁴⁵ three-step regression approach. First, we tested the direct effect of organizational justice (X) on turnover intention (Y) (Path c) using regression analysis to establish that there is a significant relationship between the two. Second, we examined the effects of organizational justice on the two mediators—WMI (M1) and SDI (M2) (Paths a1 and a2)—to ensure that organizational justice significantly influences these mediators. Finally, we assessed the mediating effects by testing the effects of WMI and SDI on turnover intention (Paths b1 and b2) while controlling for organizational justice and re-evaluating the direct effect of organizational justice on turnover intention (Path c'). If Paths b1 and b2 are significant and Path c' is reduced or becomes non-significant, it indicates that WMI and/or SDI mediate the relationship between organizational justice and turnover intention.

Results

Characteristics of the Respondents

The basic characteristics of the 1200 respondents are detailed in Table 1. The majority of the respondents were females, with a proportion of 73.8%. In terms of age, the majority of respondents were between 30 and 49 years old, comprising 69.6% of the sample. Regarding education and professional title, 89.8% of the respondents had received higher education, and 78.9% held a professional title. Among the six occupations, doctors and nurses had the highest proportions, accounting for 34.3% and 24.4%, respectively. Lastly, the distribution of respondents between community health centers and township hospitals was 36.3% and 63.7%, respectively.

Turnover Intention Across Demographic Characteristics

Turnover intention among all respondents had a mean score of 7.74 (SD = 3.67). The one-way ANOVA analysis revealed significant correlations between turnover intention and gender, age, and professional title ($p < 0.001$). Specifically, male exhibited higher turnover intention scores ($M = 8.40$, $SD = 3.90$) compared to females ($M = 7.50$, $SD = 3.56$). Additionally, turnover intention scores decreased significantly with increasing age. Respondents under 30 had the highest turnover intention ($M = 8.81$, $SD = 3.83$), while those above 49 had the lowest ($M = 6.86$, $SD = 3.17$). Regarding professional title, junior-level respondents reported the highest turnover intention scores ($M = 8.22$, $SD = 3.84$), whereas those with senior titles had the lowest scores ($M = 6.59$, $SD = 2.81$). There were no significant correlations found between turnover intention and education, occupation, or organization (see Table 2).

Table 1 The Basic Characteristics of the Respondents

Variable	Frequency	%
Gender		
Male	315	26.2
Female	885	73.8
Age		
Under 30	228	19.0
30–39	422	35.2
40–49	413	34.4
Above 49	137	11.4
Education		
High school or below	122	10.2
Junior college	333	27.7
University or above	745	62.1
Professional title		
None	253	21.1
Junior	439	36.6
Intermediate	374	31.1
Senior	134	11.2
Occupation		
Doctor	412	34.3
Nurse	293	24.4
Public health	148	12.3
Medical technician	149	12.4
Pharmacy	95	7.9
Administrative staff	103	8.7
Organization		
Community health center	435	36.3
Township hospital	765	63.7

Table 2 One-Way ANOVA Analysis of the Socio-Demographic Factor's Related to Turnover Intention

	Turnover Intention	
	M±S.D.	F
Gender		
Male	8.40±3.90	14.259***
Female	7.50±3.56	
Age		
Under 30	8.81±3.83	14.651***
30–39	8.06±3.81	
40–49	7.11±3.42	
Above 49	6.86±3.17	
Education		
High school or below	8.01±3.86	0.388
Junior college	7.70±3.55	
University or above	7.71±3.70	

(Continued)

Table 2 (Continued).

	Turnover Intention	
	M±S.D.	F
Professional title		
None	8.16±3.67	9.958***
Junior	8.22±3.84	
Intermediate	7.30±3.62	
Senior	6.59±2.81	
Occupation		
Doctor	7.80±3.63	0.848
Nurse	7.68±3.86	
Public health	7.71±3.65	
Medical technician	7.27±3.70	
Pharmacy	8.04±3.59	
Administrative staff	8.08±3.40	
Organization		
Community health centers	7.61±3.68	0.768
Township hospital	7.81±3.68	

Note: ***p<0.001.

Correlations Among Organizational Justice, Work Motivation, and Turnover Intention

Table 3 shows the mean, standard deviation, and correlations among the key variables, all significant at $p < 0.001$. The results indicated that organizational justice and its three dimensions—interpersonal justice, procedural justice, and distributive justice—were positively correlated with work motivation and negatively correlated with turnover intention. WMI and SDI also exhibited significant negative correlations with turnover intention.

Multiple Regression Analysis of Key Variables

The results of the multiple regression analysis on the relationships among perceived organizational justice, SDI, work motivation, and turnover intention are presented in Table 4.

Model 1 examined turnover intention as the dependent variable, with organizational justice as the independent variable and demographic characteristics as control variables. The results indicated that organizational justice had a significant negative effect on turnover intention ($\beta = -0.435$, $p < 0.001$).

Model 2 also focused on turnover intention as the dependent variable but included the three dimensions of organizational justice—distributive justice, procedural justice, and interpersonal justice—as independent variables, along with demographic characteristics as control variables. The findings revealed that distributive justice ($\beta = -0.203$, $p < 0.001$) and procedural justice ($\beta = -0.177$, $p < 0.01$) had significant negative effects on turnover intention, whereas the effect of interpersonal justice was not significant.

Table 3 Correlation Matrix of Organizational Justice, Work Motivation, and Turnover Intention

Variable	Mean ± S.D.	1	2	3	4	5	6	7
1 Interpersonal justice	25.56±7.420	1						
2 Procedural justice	17.32±4.939	0.847***	1					
3 Distributive justice	16.46±4.928	0.746***	0.779***	1				
4 Organizational justice	59.50±15.947	0.939***	0.936***	0.884***	1			
5 WMI	20.44±4.805	0.424***	0.428***	0.472***	0.471***	1		
6 SDI	1.08±6.601	0.306***	0.323***	0.360***	0.351***	0.894***	1	
7 Turnover intention	7.74±3.674	-0.402***	-0.418***	-0.418***	-0.443***	-0.423***	-0.424***	1

Note:***p<0.001.

Table 4 Results of the Multiple Linear Regression Analysis

	Model 1	Model 2	Model 3	Model 4	Model 5
	Turnover Intention	Turnover Intention	WMI	SDI	Turnover Intention
Control variable	—				
Organizational justice	−0.435***		0.466***	0.339***	−0.296***
Interpersonal justice		−0.094			
Procedural justice		−0.177**			
Distributive justice		−0.203***			
WMI					−0.129***
SDI					−0.232***
R ²	0.250	0.255	0.276	0.159	0.329

Notes: The data presented in the table are standardized regression coefficients. To simplify the table, the data of the control variables are not presented. ** $p < 0.01$, *** $p < 0.001$.

Model 3 assessed WMI as the dependent variable, with organizational justice as the independent variable and demographic characteristics as control variables. The results showed that organizational justice had a significant positive effect on WMI ($\beta = 0.466$, $p < 0.001$).

Model 4 analyzed the SDI as the dependent variable, with organizational justice as the independent variable and demographic characteristics as control variables. Organizational justice significantly affected SDI ($\beta = 0.339$, $p < 0.001$).

Model 5 explored turnover intention as the dependent variable, with organizational justice, SDI, and WMI as independent variables and demographic characteristics as control variables. The analysis found that organizational justice ($\beta = -0.296$, $p < 0.001$), WMI ($\beta = -0.129$, $p < 0.001$), and SDI ($\beta = -0.232$, $p < 0.001$) all had significant negative effects on turnover intention. The regression coefficient for organizational justice decreased by 0.139 compared to Model 1 ($\beta = -0.435$).

Integrating the results from Models 1, 3, and 5 confirmed that WMI mediates the relationship between organizational justice and turnover intention, while Models 1, 4, and 5 confirmed the mediating role of SDI. To validate the mediating effects of both the WMI and SDI, the Bootstrap method with 1,000 resamples was employed using the SPSS PROCESS tool. The indirect effect of WMI was -0.060 , accounting for about 13.8% of the total effect, with a 95% confidence interval of $[-0.094, -0.028]$, confirming a significant mediation as the interval does not include zero. Similarly, the indirect effect of the SDI was -0.079 , representing 18.2% of the total effect, with a 95% confidence interval of $[-0.105, -0.055]$, also indicating significant mediation. These results demonstrate that both WMI and SDI serve as significant mediators in the relationship between organizational justice and turnover intention.

Discussion

This study investigated organizational justice and turnover intention among PHCWs and examined the impact of organizational justice and its three dimensions—distributive, procedural, and interactional—on turnover intention. Furthermore, the study explored the mediating effects of both the intensity and type of work motivation on this relationship. The findings offer new insights into the factors influencing turnover intention among PHCWs and provide practical implications for improving retention.

Our results indicate that the turnover intention among PHCWs is relatively low, which contrasts with previous research.⁴⁶ This discrepancy may be attributable to the unique policies and cultural context of Shandong Province. Recently, Shandong has focused on motivating PHCWs by implementing various incentive policies, such as increased income, improved working conditions, and enhanced career advancement opportunities, which appear to have positively impacted retention.³ Additionally, the cultural context of Shandong, deeply rooted in Confucian values, emphasizes job stability and an aversion to uncertainty, likely reducing turnover intention.^{47,48} Furthermore, significant demographic differences in turnover intention were observed: males exhibited higher turnover intention than females, possibly due to greater societal and economic pressures, driving them to seek better opportunities.⁴⁸ Younger PHCWs, particularly those

under 30, also showed higher turnover intention, likely due to career uncertainties and early-career pressures.⁴⁹ Finally, PHCWs with lower professional titles reported higher turnover intention, reflecting the importance of professional recognition in mitigating turnover risk.⁵⁰

Organizational justice was found to negatively impact turnover intention, consistent with previous research.^{14,51} Among its three dimensions, distributive justice and procedural justice had significant negative effects on turnover intention, while interactional justice did not. Notably, distributive justice has a greater impact on turnover intention than procedural justice. One possible explanation for this is China's high power distance culture,⁵² where PHCWs have limited involvement in decision-making and generally accept power hierarchies.⁵³ As a result, they tend to be less concerned with procedural justice compared to distributive justice, as the latter has a more direct impact on their personal benefits. The lack of significance for interactional justice may be due to the unmet basic needs of PHCWs, such as adequate income and social status. As a result, higher-order needs like respect and recognition, addressed by interactional justice, may have a negligible impact on their turnover intention.⁵⁴

The mediation analysis revealed that both WMI and SDI mediate the relationship between organizational justice and turnover intention, with SDI showing a stronger mediation effect than WMI, suggesting that work motivation type plays a more critical role than its intensity in influencing turnover intention. This finding aligns with SDT, which posits that internalized motivation, closely aligned with personal values, leads to better work outcomes.^{55,56} Practically, these results underscore the importance of enhancing perceived organizational justice among PHCWs, particularly by strengthening distributive justice and procedural justice, to foster the internalization of work motivation and reduce turnover intention. To achieve this, it is necessary to establish and refine incentive policies. For example, implementing transparent and equitable performance evaluations system can strengthen distributive justice. Additionally, holding regular employee meetings that incorporate feedback into decision-making processes can enhance procedural justice.

Implications

Theoretically, this study extends the understanding of organizational justice by examining its specific impacts on turnover intention among PHCWs within the unique cultural and policy-driven context of China. It reveals that distributive, procedural, and interactional justice influence turnover intention differently, suggesting that in high power distance cultures like China, distributive justice may have a more pronounced effect than procedural or interactional justice. Furthermore, this study clarifies the mediating role of work motivation in the organizational justice-turnover intention relationship, emphasizing the distinct roles of motivation intensity and type. The finding that SDI has a stronger mediation effect than WMI underscores the critical role of internalized motivation in reducing turnover intention. This insight advances the literature by substantiating SDT, which posits that intrinsic motivation and self-determined behaviors are strongly aligned with positive work outcomes.

Practically, this study proposes an alternative, cost-effective approach to mitigating turnover intention among PHCWs by enhancing organizational justice to foster intrinsic motivation and support motivation internalization. Rather than relying predominantly on resource-intensive external incentives, healthcare organizations can focus on building a fair organizational culture through transparent policies and equitable practices. This approach not only directly improves perceptions of distributive and procedural justice but also promotes motivation internalization, leading to more sustainable retention outcomes. For instance, establishing fair compensation and promotion systems, coupled with inclusive decision-making processes, can help create a work environment that encourages genuine commitment and engagement among PHCWs, thus reducing turnover intention more effectively than external incentives alone.

Limitations

Although this study provides valuable insights, several limitations need to be addressed in future research to enhance the robustness and generalizability of the findings. First, the cross-sectional design limits the ability to establish causality. To address this, longitudinal studies are recommended to track changes over time and confirm the temporal dynamics of the observed relationships. Second, the geographic focus on Shandong Province in China may restrict the generalizability of the findings, as cultural and socioeconomic factors vary across regions. Future research should include a broader range of

regions to enhance the external validity of these findings. Third, this study used turnover intention as the outcome variable instead of actual turnover due to operational convenience. Although turnover intention is a commonly used proxy, it does not fully capture the complexities and finality of actual turnover. Therefore, future research should investigate actual turnover to verify whether the relationships identified in this study hold true.

Conclusions

This study, based on a survey of PHCWs in China, demonstrates that organizational justice—particularly distributive and procedural justice—significantly reduces turnover intention. The findings reveal that work motivation mediates this relationship, with motivation type exerting a stronger effect than motivation intensity, underscoring the role of intrinsic motivation in enhancing retention. These results highlight that fostering a fair organizational culture presents a sustainable alternative to resource-intensive external incentives. Establishing transparent systems for compensation, promotion, and inclusive decision-making can strengthen intrinsic motivation, effectively reducing turnover intention and contributing to the long-term stability of primary healthcare workforce.

Abbreviations

PHCWs, Primary Healthcare Workers; SDT, Self-Determination Theory; WMSHW, Work Motivation Scale for Healthcare Workers; MWMS, Multidimensional Work Motivation Scale; WMI, Work Motivation Intensity; SDI, Self-Determination Index; ANOVA, Analysis of variance; β , Standardized regression coefficient; p value, intensity of significance; SD, Standard deviation.

Data Sharing Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethics Approval and Consent to Participate

This study followed the Declaration of Helsinki and received approval from the Ethics Committee of Shandong First Medical University (R202305160130). Before answering the questionnaire, all participants read a statement that explained the purpose of the survey and consented to participate.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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Disclosure

The authors report no conflicts of interest in this work.

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