

The Justice Equation: What Drives Doctor Turnover in Malaysia's Public Hospitals?

Persamaan Keadilan: Apakah Faktor yang Mendorong Perpindahan Doktor di Hospital Awam Malaysia?

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Abstract

This study examined the effects of distributive, procedural, interactional, and temporal justice on turnover intention among medical doctors in Malaysian public hospitals. Data was collected from 380 permanently employed doctors across ten public hospitals in Klang Valley and analysed using structural equation modelling. The results showed moderate overall turnover intention (adjusted mean = 3.135). Despite this moderate level, 58.16% of doctors intended to leave the public sector, highlighting a potential sustainability challenge in Malaysia's public healthcare system. The analysis revealed that distributive justice ($\beta = -0.493$, $p = 0.001$) and temporal justice ($\beta = -0.126$, $p = 0.007$) had significant inverse effects on turnover intention. In contrast, neither procedural nor interactional justice exerted significant effects. These findings suggest that fair organisational outcome distribution and individual discretion in balancing time for work and personal life play a more crucial role in doctor retention than procedural fairness or supervisor interactions. The study underscores the need for tangible, outcome-based retention strategies in Malaysia's public healthcare system, specifically suggesting policymakers should prioritise fair reward systems and work-life balance initiatives to reduce attrition. Overall, the findings of this study contribute to broader academic discussions about organisational justice practices that may contribute to prolonged healthcare sustainability.

Keywords: organisational justice, turnover intention, healthcare sector, public hospitals, doctors

Abstrak

Kajian ini menguji pengaruh keadilan distributif, prosedural, interaksional, dan temporal terhadap niat pusing ganti doktor perubatan di hospital awam di Malaysia. Data diperolehi daripada 380 orang doktor yang berkhidmat secara tetap di sepuluh hospital awam di Lembah Klang dan dianalisis menggunakan pemodelan persamaan struktur. Secara purata, niat pusing ganti adalah sederhana (min terlaras = 3.135). Namun, 58.16% doktor cenderung untuk berhenti, sekaligus memberikan cabaran terhadap kelangsungan perkhidmatan kesihatan sektor awam di Malaysia. Analisis mendapati keadilan distributif ($\beta = -0.493$, $p = 0.001$) dan keadilan temporal ($\beta = -0.126$, $p = 0.007$) mengurangkan niat pusing ganti secara signifikan. Sebaliknya, keadilan prosedural dan interaksional tidak memberikan kesan yang signifikan. Ini menunjukkan bahawa agihan manfaat yang adil dan keseimbangan antara kerja dan kehidupan peribadi lebih berkesan mengekalkan doktor berbanding proses pembuatan keputusan atau interaksi dengan pegawai atasan yang adil. Rumusan yang boleh dibuat ialah sekiranya penggubal dasar ingin mengurangkan kecenderungan untuk berhenti, keutamaan harus diberikan kepada sistem ganjaran yang adil dan memperluaskan inisiatif untuk memberikan ruang kepada doktor untuk memastikan kehidupan peribadi tidak terjejas dengan tuntutan di tempat kerja. Secara keseluruhan, dapatan

kajian ini membuka ruang diskusi akademik yang lebih luas mengenai amalan keadilan organisasi yang boleh menyokong kemampuan perkhidmatan kesihatan yang berterusan.

Kata kunci: keadilan organisasi, niat pusing ganti, sektor penjagaan kesihatan, hospital awam, pegawai perubatan

INTRODUCTION

Since independence in 1957, the public healthcare sector in Malaysia has emerged as the country's biggest catalyst for medical services. It has grown along with the country's healthcare system reforms and evolved over the years, including providing equitable healthcare access and a low-cost system led by the Ministry of Health (Khor et al., 2024; Thomas et al., 2011). Malaysia's healthcare system faces critical sustainability challenges as it progresses toward high-income nation status while simultaneously navigating dual demographic and epidemiological transitions (Abdul Rassip & Wan Puteh, 2020; Khor et al., 2024). The system's exemplary performance fundamentally depends on robust healthcare infrastructure and a stable, well-trained medical workforce (Thomas et al., 2011). Medical doctors in the public sector serve as the cornerstone of healthcare delivery, with this medical workforce and their expertise represent the system's greatest asset and most vulnerable component for healthcare delivery (Dulajis et al., 2022).

Retaining medical doctors and their specialised expertise is crucial for maintaining care quality and ensuring positive patient outcomes (Abdul Rassip & Wan Puteh, 2020). Malaysia's public healthcare sector faces severe doctor retention challenges, with resignations more than doubling between 2008 and 2011 and over 6,000 doctors leaving public service between 2010 and 2017 (Dulajis et al., 2022; Harun, 2020). This persistent attrition has created critical staff shortages and heavier workloads for remaining personnel, potentially compromising patient safety through increased medical errors (Ahmad et al., 2019; Seathu Raman et al., 2024). Despite employing 60% of the nation's medical staff, the public sector serves 80% of the population while losing approximately 10% of its doctors and nurses annually to the private sector (Ismail, 2023; Najib et al., 2019). This internal brain drain significantly strains public hospitals that handle complex cases, provide the majority of inpatient care, and serve as training grounds for future clinicians (Dulajis et al., 2022).

Several factors influence the turnover of public-sector doctors, encompassing job dissatisfaction due to inadequate professional development opportunities, mismatches between compensation and workload, insufficient benefits, lack of recognition, suboptimal working conditions, and excessive bureaucratic demands (Ab Rahman et al., 2019; Ghazaili & Daud, 2016; Roslan et al., 2014). Structural governance issues, such as inequitable job promotion opportunities, disparities in fringe benefits and allowances, and limited chances for advanced training, amplify turnover intentions (Abdul Rassip & Wan Puteh, 2020; Dulajis et al., 2022). These concerns strongly align with established frameworks of workplace justice (Greenberg, 1990; Moorman, 1991). Furthermore, they correspond directly with the organisational justice measures validated through the works of Colquitt et al. (2001) and Colquitt and Rodell (2015). This theoretical congruence suggests that the discontent observed among Malaysian public healthcare practitioners stems fundamentally from perceived systemic inequities within their work environment, which appear to be significant determinants of their job dissatisfaction and turnover intentions.

While Malaysian public doctors' dissatisfaction aligns with organisational justice theories and characteristics (Greenberg, 1990; Moorman, 1991; Colquitt et al., 2001; Colquitt & Rodell, 2015), the direct impact of justice perceptions on turnover intentions remains underexplored. Existing studies (e.g. Abdul Rassip & Wan Puteh, 2020; Dulajis et al., 2022) examine justice-related job satisfaction but lack empirical evidence linking workplace fairness directly to attrition. This gap hinders targeted retention strategies, as it remains unclear whether improving organisational justice can mitigate turnover. Addressing this could inform policies to stabilise Malaysia's strained public healthcare workforce. Therefore, this study aims to directly investigate the effects of organisational justice on turnover intentions among Malaysian public doctors. The findings will establish concrete evidence about how fairness perceptions influence attrition decisions, enabling policymakers to develop targeted interventions to enhance workforce retention in Malaysia's public healthcare system. Without such a study, health authorities risk implementing generic retention strategies that fail to address the root

causes of turnover, potentially exacerbating Malaysia's healthcare workforce crisis and compromising long-term health system sustainability.

LITERATURE REVIEW

Turnover intention is defined as an individual's conscious willingness to leave their organisation soon and is a critical proxy for actual employee turnover (Peltokorpi & Allen, 2024; Wong & Cheng, 2020). It represents the final stage of withdrawal cognitions, encompassing thoughts of leaving and the active intention to seek new employment (Wong & Chen, 2020). For Malaysian medical doctors, turnover intention is the concluding step in their decision to leave, making it a key indicator of actual departure (Naidu et al., 2023). The Theory of Planned Behavior (Ajzen, 1985) supports this link, positing a strong correlation between behavioural intention and actual behaviour. Research indicates that higher turnover intention significantly increases the likelihood of actual turnover in healthcare employees (Zahednezhad et al., 2020). Consequently, organisations can use turnover intention rates to estimate potential actual turnover (Francis et al., 2023). Studying turnover intention is particularly vital for Malaysian public hospitals as it offers early warnings of potential doctor attrition, enabling proactive implementation of retention strategies to mitigate actual resignations.

The foundation of the organisational-employee relationship rests on the principle of fair reciprocal exchange (Yang et al., 2021). This suggests that when organisations treat employees fairly, they can anticipate a positive reciprocation, such as a decreased intention to leave. Conversely, a perceived lack of justice can foster feelings of being undervalued, leading to decreased commitment and a greater likelihood of turnover. While direct research on this link within the Malaysian public healthcare context is limited, existing studies in broader healthcare settings and indicators of dissatisfaction among Malaysian public doctors point towards an inverse relationship between organisational justice and turnover intentions (Ahmad et al., 2019; Cao et al., 2020; Daud et al., 2022; Ghazaili & Daud, 2016; Mengstie, 2020). These indicators, such as dissatisfaction with recognition, remuneration, workload, and career development, resonate with the core tenets of workplace fairness and align with common measures of organisational justice (Colquitt et al., 2005; Colquitt & Rodell, 2015; Greenberg, 1990; Moorman, 1991). This suggests an underlying sense of unfairness among Malaysian public doctors that may contribute to their inclination to leave.

Organisational justice represents an employee's fundamental perception of fairness within their workplace (Greenberg, 1990; Sato et al., 2022; Yusoff et al., 2022). This subjective understanding encompasses how employees evaluate the fairness of an organisation's actions, decisions, and the ethical conduct of its management (Greenberg, 1987, 1990; Moorman, 1991). These fairness perceptions are critical as they significantly shape employees' attitudes and behaviour in the workplace. Employees who believe the organisation treats them justly tend to respond positively. Conversely, perceptions of injustice often lead to adverse reactions (Alyahya et al., 2024; Cao et al., 2020). Notably, employees who perceive their organisation as fair often feel a moral or psychological obligation to reciprocate through productive behaviours that benefit the organisation (Gharbi et al., 2022). Therefore, organisational management is viewed as the primary source of workplace justice, with employees at all levels acting as both assessors and recipients of this fairness (Aggarwal et al., 2020; Sato et al., 2022; Yusoff et al., 2022).

Organisational justice theories initially centred on distributive justice, concerning the fairness of outcome sharing (Adams, 1965), and procedural justice, addressing the fairness of decision-making methods (Leventhal, 1976, 1980). Subsequently, interactional justice emerged, focusing on the fairness of interpersonal communication in the workplace (Bies & Moag, 1986). Employees commonly evaluate these three dimensions over time, and they are widely accepted as the core model of organisational justice (Zahednezhad et al., 2020). A literature review confirms the research prominence of these three dimensions, including within healthcare settings where they are frequently used to predict turnover intention (Cao et al., 2020; Choi & Shin, 2022; Zahednezhad et al., 2020; Zhou et al., 2022). Along with these components, temporal justice has been identified as another relevant element of organisational justice (Akram et al., 2017, 2020; Attaway, 2024). However, despite its emergence, research predominantly focused on the traditional three dimensions, comprising distributive, procedural, and interactional justice (Sheeraz et al., 2021).

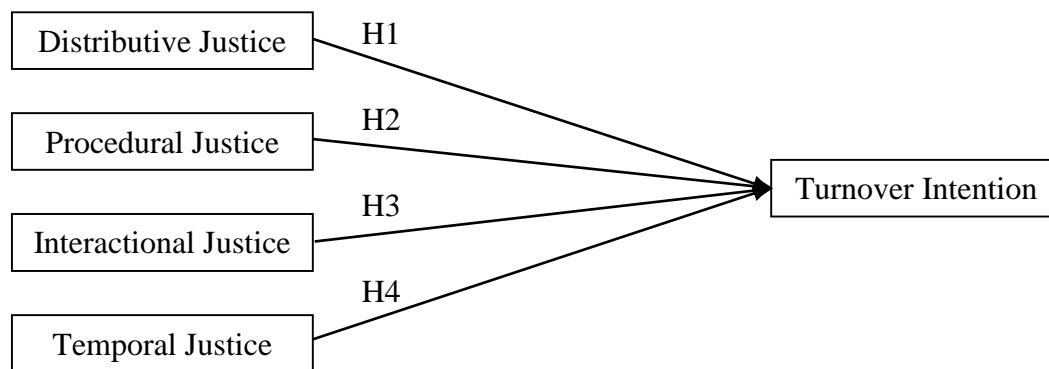
Distributive justice, which concerns the perceived fairness of outcome allocation, has been consistently linked to turnover intentions in healthcare settings. Studies across various countries have shown that when healthcare workers perceive an imbalance between their contributions and the rewards they receive, their intention to leave significantly increases (Choi & Shin, 2022; Mengstie, 2020). Conversely, perceptions of fair compensation, recognition, and opportunities for advancement can foster a sense of value and reduce the desire to seek alternative employment (Chen et al., 2022; Medina-Craven & Ostermeier, 2021; Yang et al., 2021). Mengstie's (2020) finding that distributive justice was the strongest predictor of turnover intention among hospital employees underscores its critical role in retention. This aligns with Equity Theory, which posits that employees evaluate fairness by comparing their input-to-outcome ratios with those of others. Given this robust evidence, it is hypothesised that distributive justice significantly negatively affects turnover intention among Malaysian public doctors (Hypothesis 1).

Procedural justice focuses on the perceived fairness of the processes used to make organisational decisions. Research suggests that when employees perceive these processes as fair and transparent, their commitment to the organisation strengthens, decreasing turnover intentions (Gharbi et al., 2022; Kida & Takemura, 2024). Conversely, the perception of unfair or biased procedures can breed dissatisfaction and increase the likelihood of quitting (Andreescu & Vito, 2021). Notably, Yusoff et al. (2022) found procedural justice to be a non-significant predictor of turnover intention among academic staff in Malaysia. While the specific context of public healthcare may introduce nuances, the established link between fair procedures and employee retention provides a strong basis to hypothesise that procedural justice significantly negatively affects turnover intention among Malaysian public doctors (Hypothesis 2).

Interactional justice addresses the quality of interpersonal treatment employees receive from their supervisors and organisational representatives. Respectful, dignified, and transparent communication fosters a sense of being valued, which is crucial for building organisational commitment and reducing turnover intentions (Zahednezhad et al., 2020; Zhao et al., 2024). Conversely, experiences of disrespectful or unfair treatment from supervisors can lead to feelings of disengagement and an increased desire to leave (Sato et al., 2022). Empirical studies consistently demonstrate an inverse relationship between interactional justice and turnover intention (Choi & Shin, 2022; Chong et al., 2021; Hwang & Yi, 2021). Although some research suggests that the influence of interactional justice might vary depending on the specific context and the importance of other workplace relationships (Zhao et al., 2024; Zhou et al., 2022), the prevailing evidence supports the hypothesis that interactional justice significantly negatively affects turnover intention among Malaysian public doctors (Hypothesis 3).

Temporal justice, which concerns the perceived fairness of time-related aspects of work, is an emerging area in the study of organisational justice and turnover. Recent findings by Austin Attaway (2024) indicate a negative association between temporal justice and intention to leave. Furthermore, research has shown that perceptions of fairness regarding workload distribution, scheduling, and work-life balance can influence job satisfaction and other positive work behaviours (Akram et al., 2020). In a collectivistic context like Malaysia, where value is placed on family and social connections, perceived temporal injustice, such as a lack of work-life balance, could be particularly detrimental to organisational commitment and increase turnover intentions (Akram et al., 2020; Novianti & Fuadiputra, 2021; Yang et al., 2021). Based on this growing body of evidence, it may be hypothesised that temporal justice significantly negatively affects turnover intention among Malaysian public doctors (Hypothesis 4).

A review of the literature by earlier researchers established a theoretical foundation of significant inverse effects between distinct components of organisational justice and turnover intention. The theoretical underpinning drawn from existing literature justifies the formulation of Hypothesis 1 (H1), Hypothesis 2 (H2), Hypothesis 3 (H3), and Hypothesis 4 (H4). The conceptual framework for the present study is illustrated in Figure 1.

Figure 1 *Conceptual Framework*

RESEARCH METHODOLOGY

The research explores the extent to which perceived justice influences turnover intention among doctors in Malaysian public hospitals, particularly in urban areas. The study centres on the Klang Valley, Malaysia's most urbanised region and the primary medical excellence hub, serving as the nation's key referral centre for specialised care. A survey-based design examines behavioural patterns among medical practitioners, employing a hypothetical-deductive paradigm to test theoretical relationships between organisational justice components and turnover intention.

The investigation employs deductive methodology to formulate and statistically test theoretical propositions derived from the conceptual framework. Quantitative evidence determines whether to accept or reject hypothesised relationships between variables. The study population includes 4,351 permanently employed doctors from ten public hospitals in Klang Valley, stratified into specialists ($n = 1,448$) and non-specialists ($n = 2,903$). Using Krejcie and Morgan's (1970) sampling table, researchers identified 400 participants through proportionate stratified random sampling, comprising 132 specialists and 268 non-specialists. Final participation included 380 doctors (115 specialists; 265 non-specialists).

Data collection employed a cross-sectional survey design using a 28-item self-administered questionnaire adapted from established scales. Measurements for distributive, procedural, interactional, and temporal justice were derived from Akram et al. (2017), while turnover intention items were sourced from Roodt (2004). Contextual modifications to scale content and wording were reviewed by psychology and organisational behaviour experts to ensure content and face validity. All variables used 5-point Likert scales. Cronbach's alpha values ranged from 0.816 to 0.914 (Table 1), indicating satisfactory-to-good reliability (Hair et al., 2018).

Table 1*Items for the Instruments*

Code	Items	Cronbach's Alpha
DJ1	The performance appraisal is appropriate to my work achievements.	0.868
DJ2	My work performance is appropriately rewarded.	
DJ3	The opportunity to develop my career is appropriate to what I have contributed to my organisation.	
DJ4	I received appropriate appreciation for the stresses and strains I went through in my duties.	
DJ5	I am given appropriate recognition for the amount of experience I have.	
PJ1	Before making decisions on me, my supervisor gathers accurate information necessary for him/her.	0.914

continued

Code	Items	Cronbach's Alpha
PJ2	I am allowed to give my views and opinions to the supervisor before he/she makes decisions.	0.901
PJ3	I am allowed to appeal the decisions made by my supervisor for his/her reconsideration.	
PJ4	In the decision-making process, my supervisor allows me to participate in making the decisions on me.	
PJ5	My supervisor is free of bias when making decisions for his/her subordinates.	
PJ6	In making decisions affecting his/her subordinates, my supervisor upholds ethical and moral values.	
IJ1	My supervisor deals with me in a polite manner.	
IJ2	My supervisor treats me with respect.	
IJ3	My supervisor treats me with dignity.	
IJ4	My supervisor avoids giving improper remarks or comments when communicating with me.	
IJ5	My supervisor tailors his/her communication styles to suit the needs of different individuals.	
TJ1	I can leave the office on time once my normal working hours have ended.	0.908
TJ2	I am able to spend time with my spouse/children/family despite my busy work.	
TJ3	I have free time after work to perform my household chores.	
TJ4	My work commitments do not affect my time to socialise, spend time with friends, work out, indulge in hobbies, and so on.	
TJ5	Despite my commitment to work, I still have time to get enough sleep and rest during the working days.	
TJ6	My professional life intrudes on my personal life (reverse).	
TI1	How do you view the likelihood that you could satisfy your career goals if you remain at the Ministry? (reverse).	0.816
TI2	How likely are you to resign if your career prospects at the Ministry could not meet your career goals?	
TI3	How often do you think about getting another job outside the Ministry that you consider it better suits your career goals?	
TI4	How likely are you to accept another job outside the Ministry should it be offered to you with the same remuneration package?	
TI5	How often do you feel excited about going to work for the next day at your current organisation? (reverse)	
TI6	How often do you feel excited about going to work for another day in your current organisation?	
Overall Instrument's Cronbach's Alpha		0.855

Note: DJ=Distributive Justice, PJ=Procedural Justice, IJ=Interactional Justice, TJ=Temporal Justice, TI=Turnover Intention

The descriptive analysis of participants' turnover intention used the Statistical Package for the Social Sciences (SPSS) software. Structural equation modelling (SEM) employs multivariate statistical tools to examine relationships between variables, allowing simultaneous hypothesis testing through models representing theoretical predictions (Hair et al., 2018; Kline, 2016). Thus, SEM was implemented using AMOS to construct a measurement model determining factor loadings, convergent validity, and

discriminant validity between the constructs. AMOS was also used to develop the structural model for hypothesis testing.

MODEL DEVELOPMENT

Harman's single-factor test (Hair et al., 2018; Kline, 2016) was employed to address potential common method bias in the self-administered data. Results indicated that the first factor accounted for 38.636% of the total variance, which is below 50% to represent the absence of severe common method variance (Hair et al., 2018). This confirms that no single factor dominated the variance structure, and the data maintained multiple distinct factors (Tehseen et al., 2017). The findings thus support the measurement model's factorial validity and the theoretical distinctiveness of constructs (Hair et al. 2018).

This study employed Principal Component Analysis (PCA) to examine the underlying structure of organisational justice. The analysis yielded four distinct factors, confirming the construct's multidimensional nature, with all items demonstrating strong factor loadings (Table 2). The results showed data suitability for PCA, as evidenced by a high Kaiser-Meyer-Olkin measure (KMO = 0.944) and a statistically significant Bartlett's Test of Sphericity ($p < 0.001$). These four components collectively accounted for 70.315% of the total variance, capturing a substantial proportion of the variability in organisational justice perceptions (Hair et al., 2018). The findings provide strong empirical support for the theoretical framework of organisational justice, demonstrating its multifaceted structure in the Malaysian healthcare context.

Table 2

Results of PCA for Items Measuring Organisational Justice Components

Code	Rotated Component Matrix				% of Variance	Cumulative % of Variance	Sampling Adequacy
	TJ	IJ	DJ	PJ			
TJ1	0.743				46.804	46.804	
TJ2	0.851						
TJ3	0.857						
TJ4	0.832						
TJ5	0.793						
TJ6	0.655						
IJ1		0.840			12.281	59.085	KMO Measure = 0.944
IJ2		0.879					
IJ3		0.830					
IJ4		0.707					
IJ5		0.592					
DJ1			0.617		7.424	66.508	Bartlett's Test of Sphericity sig.= 0.001
DJ2			0.798				
DJ3			0.694				
DJ4			0.778				
DJ5			0.749				
PJ1				0.561	3.807	70.315	
PJ2				0.777			
PJ3				0.705			
PJ4				0.700			
PJ5				0.638			
PJ6				0.581			

Note: DJ=Distributive Justice, PJ=Procedural Justice, IJ=Interactional Justice, TJ=Temporal Justice

Following Hair et al.'s (2018) recommendations, confirmatory factor analysis (CFA) was conducted in AMOS to evaluate all constructs simultaneously. The measurement model (Figure 2) demonstrated an acceptable fit (CMIN/df = 2.206, RMSEA = 0.056, NFI = 0.901, IFI = 0.943, TLI = 0.937, CFI = 0.943). All indicator loadings exceeded 0.5, confirming significant relationships with their respective latent constructs (Hair et al., 2018). These results satisfy the recommended thresholds, supporting the model's validity and reliability for subsequent structural analysis.

Figure 2 Measurement model

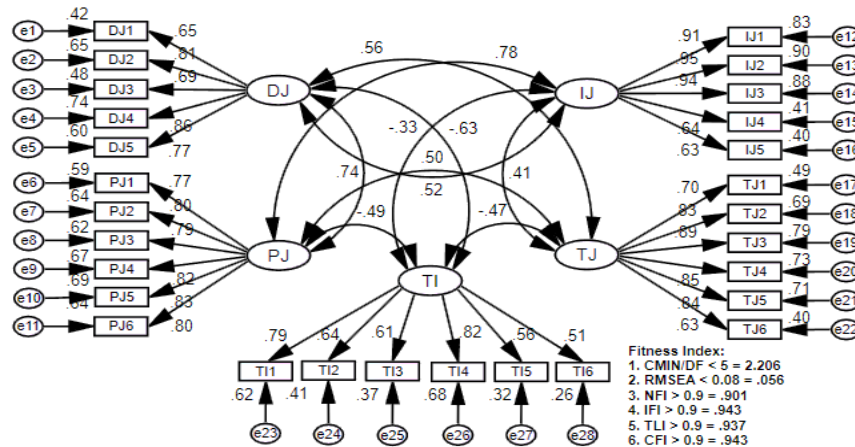


Table 3 demonstrates constructs' convergent validity, measured by indicators obtaining significant squared factor loadings (≥ 0.5), composite reliability (C.R.) reaching the recommended level of ≥ 0.7 (Hair et al., 2018), and average variance extracted (AVE) ranging between 0.443 and 0.686. AVE < 0.5 is acceptable if C.R. for the respective construct is well above the recommended level (Fornell & Larcker, 1981). The square roots of AVE for each construct (values in bold italic on the diagonal) are greater than the correlations between the respective pairs of constructs (values below the diagonal), evidencing the constructs' discriminant validity.

Table 3

Item Factor Loadings, AVE, C.R., Discriminant Validity, and Mean Values

Construct	Code	Loading	AVE	C.R.	Discriminant Validity					Mean
					DJ	PJ	IJ	TJ	TI	
DJ	DJ1	0.650	0.577	0.871	0.760	0.801	0.828	0.798	0.760	3.086
	DJ2	0.808								
	DJ3	0.692								
	DJ4	0.858								
	DJ5	0.772								
PJ	PJ1	0.771	0.642	0.915	0.743	0.801	0.828	0.798	0.760	3.566
	PJ2	0.799								
	PJ3	0.786								
	PJ4	0.819								
	PJ5	0.829								
	PJ6	0.803								
IJ	IJ1	0.911	0.686	0.913	0.522	0.780	0.828	0.798	0.760	3.896
	IJ2	0.950								
	IJ3	0.940								
	IJ4	0.641								
	IJ5	0.633								
TJ	TJ1	0.703	0.637	0.912	0.562	0.499	0.415	0.798	0.760	3.159
	TJ2	0.833								

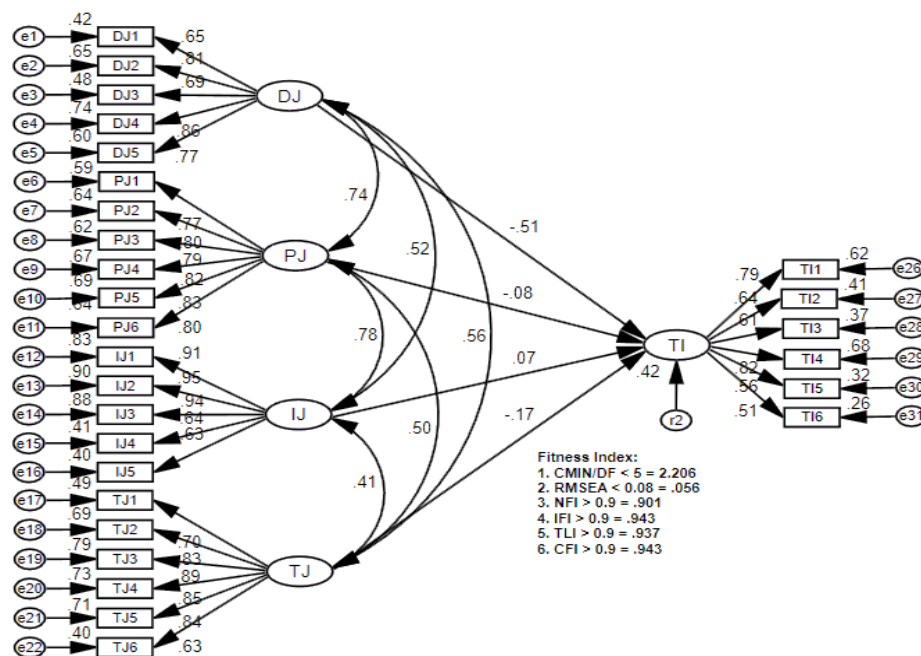
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	TJ3	0.889								
	TJ4	0.855								
	TJ5	0.845								
	TJ6	0.629								
TI	TI1	0.789	0.443	0.823	-0.629	-0.790	-0.328	-0.467	0.666	3.135
	TI2	0.638								
	TI3	0.611								
	TI4	0.822								
	TI5	0.563								
	TI6	0.514								

Note: DJ=Distributive Justice, PJ=Procedural Justice, IJ=Interactional Justice, TJ=Temporal Justice, TI=Turnover Intention

The relationship between distinct organisational justice components and turnover intention is examined through SEM AMOS by developing a structural model representing predictions of the former variables on the latter, quantified by observed variables (Kline, 2016; Hair et al., 2018). The constructed structural model (Figure 3) achieved its recommended fitness indexes ((CMIN/df = 2.206, RMSEA = 0.056, NFI = 0.901, IFI = 0.943, TLI = 0.937, CFI = 0.943), indicating that the data used to test the effects of organisational justice components and turnover intention fit the designed model. The model explains 42.0% ($R^2 = 0.42$) of the variance in turnover intention attributable to justice components. Falk and Miller (1992) established that R^2 values ≥ 0.10 (10%) indicate meaningful relationships in structural models. As the current R^2 value substantially exceeds this threshold, the regression model demonstrates significant effects of organisational justice components on turnover intention, meeting Falk and Miller's (1992) criterion for practical significance.

Figure 3 Structural Model



RESULTS

Table 4 summarises the details of the study's participant demographics, comprising professional categories, gender, age, and service tenure.

Table 4*Participants' Demographics*

Variables	Criteria	Frequency	Percentage	Mean	SD.	Min	Max
Category	Specialists	115	30.26				
	Non-specialists	265	69.74				
Gender	Male	131	34.5				
	Female	249	65.5				
Age	29 – 39 years	277	72.9	36.99	5.756	29	58
	40 – 54 years	96	25.3				
	55 – 58 years	7	1.8				
Service Tenure	3 – 5 years	46	12.1	11.47	5.726	3	33
	6 – 9 years	109	28.7				
	10 – 12 years	94	24.7				
	13 – 15 years	62	16.3				
	16 – 33 years	69	18.2				

In determining the level of turnover intention, a mean score below 18 across six indicators (scale: 1–5) is used to indicate a desire to stay, while a score of 18 or higher suggests a desire to leave (Roodt, 2004). As shown in Table 3, the overall mean score is 18.81, indicating that doctors in public hospitals within the Klang Valley lean toward an intent to leave. In light of the Theory of Planned Behaviour (Ajzen, 1991, 2020), the higher percentage of doctors intending to leave (58.16%) compared to those intending to stay (41.84%) implies the presence of a subjective behavioural norm favouring turnover. This suggests that leaving public service is perceived as common behaviour within the doctors' community. Nevertheless, the adjusted mean (3.135) reflects that their intention to leave remains at a moderate level.

Table 5*Turnover Intention*

Equation (Level of Turnover Intention)	Turnover Intention (6 items)	N= 380 (%)
Interval width = $(5-1)/3$ = 1.33	Score: <18 (intention to stay)	n= 159 (41.84)
	Score: ≥ 18 (intention to leave)	n= 221 (58.16)
Level of turnover intention:	Sum score	7149.69
Low = $0.01 \leq \text{adjusted mean} < 2.33$	Mean	18.81
Moderate = $2.33 \leq \text{adjusted mean} < 3.67$	Adjusted mean	3.135
High = $3.67 \leq \text{adjusted mean} \leq 5.00$	Level of turnover intention	Moderate

The hypothesis testing results (Table 4) reveal distinct relationships between organisational justice dimensions and turnover intention. Distributive justice ($\beta = -0.493$, $p = 0.001$) and temporal justice ($\beta = -0.126$, $p = 0.007$) significantly reduce turnover intention, supporting H1 and H4. This suggests that doctors who perceive fair outcome distribution and control over their time are less likely to consider leaving. However, neither procedural justice ($\beta = -0.074$, $p = 0.469$) nor interactional justice ($\beta = 0.068$, $p = 0.380$) significantly predicts turnover intention, leading to the rejection of H2 and H3. These findings imply that while equitable outcomes and discretionary time control deter turnover, formal decision-making procedures and interpersonal treatment in the decision-making process may have limited influence on retention decisions in public healthcare settings. This highlights the need for policymakers to prioritise just reward systems, autonomous time management, and work-life balance over procedural reforms and fair interpersonal exchange to mitigate doctor attrition.

Table 6*Results of Hypothesis Tests*

Paths	β Estimates	S.E.	C.R.	<i>p</i>	Results	Decisions
DJ→TI	-0.493	0.098	-5.054	0.001*	Significant	H1 supported
PJ→TI	-0.074	0.102	-0.725	0.469**	Not significant	H2 not supported
IJ→TI	0.068	0.077	0.877	0.380**	Not significant	H3 not supported
TJ→TI	-0.126	0.046	-2.721	0.007**	Significant	H4 supported

Note: $N = 380$, * $p < 0.001$, ** $p < 0.05$

DISCUSSION AND CONCLUSION

This study's mean score of 18.81 (7149.69/380) indicates the doctors' tendency to leave their existing public service employment. The contemplation towards leaving (58.16%) is remarkably higher than previous findings of 46.8% in two public hospitals within the Klang Valley area (Abdul Rassip & Wan Puteh, 2020) and 31.7% in Sabah (Dulajis et al., 2022). The elevated percentage across ten hospitals in the present study suggests turnover intention intensifies with broader institutional sampling and appears transregional from Klang Valley to Sabah, indicating systemic rather than geographically isolated challenges. The Theory of Planned Behavior (Ajzen, 1985, 1991) elucidates these findings. A higher-than-average inclination for turnover establishes a concerning subjective behavioural norm, suggesting that public doctors commonly view voluntary exit from public service as an accepted practice. This trend risks creating a self-reinforcing cycle of attrition, potentially reaching a critical juncture for Malaysia's healthcare system where prevailing normalisation of exit accelerates workforce depletion.

The present study revealed that distributive justice significantly and inversely predicts turnover intention, a finding supporting that inequities in compensation, recognition, and organisational outcomes potentially increase the intention to leave among healthcare workers (Chen et al., 2022; Choi & Shin, 2022; Medina-Craven & Ostermeier, 2021; Mengstie, 2020). This also confirms previous findings that fair rewards and career development opportunities are crucial for its reduction (Chen et al., 2022; Dulajis et al., 2022; Perreira et al., 2018; Suifan et al., 2017). Likewise, the significant inverse effect of temporal justice on turnover intention confirms the role of autonomy in doctors' retention previously emphasised by El Koussa et al. (2016). It aligns with the value collectivist societies place on quality time and discretionary time control (Akram et al., 2017, 2020), further supporting temporal justice as a source of work-life balance (Akram et al., 2020; Novianti & Fuadiputra, 2021). Empirically, The findings corroborate the theoretical proposition that distributive justice and temporal justice function as salient antecedents in the mitigation of withdrawal cognitions within the examined professional context.

Meanwhile, the insignificance of procedural justice in affecting turnover intention suggests that it is not a crucial determinant for the doctors in public hospitals in Klang Valley, failing to affirm its theorised role in enhancing organisational attachment and reducing intention to leave (Mengstie, 2020; Gharbi et al., 2022). This may be attributed to frontline healthcare employees, particularly doctors, who prioritise adherence to clinical standard operating procedures over administrative standards. Similarly, the unexpected positive but insignificant effect of interactional justice contradicts the hypothesised negative association and prior theoretical assertions linking fair interactions to better retention (Zahednezhad et al., 2020), though aligning with findings from Zhou et al. (2022) and Hussain and Khan (2018). The potential undervaluation of supervisor interactions due to stronger peer relationships may explain these results. Theoretically, these insignificant findings challenge the direct applicability of procedural justice and interactional justice as primary drivers of retention for this specific workforce.

This study's findings demonstrate the primacy of distributive justice and temporal justice in promoting doctors' loyalty within the Malaysian civil service, underscoring the importance of tangible aspects of organisational justice. While hypotheses about equitable outcome sharing and time control discretion show potential for reducing turnover intention, the results provide inconclusive and limited support for the reciprocity concept proposed in Social Exchange Theory (Blau, 1964) that fair interpersonal treatment is necessarily reciprocated with gestures of goodwill. This conclusion is substantiated by the statistically insignificant effects of procedural justice and interactional justice on

the doctors' intention to leave. Overall, the findings imply that tangible exchange mechanisms represented by distributive justice and temporal justice carry greater weight in retention within this unique healthcare setting than intangible social exchange elements. The results highlight how tangible justice notions outweigh relational aspects of justice in influencing doctors' disposition to leave while acknowledging the theoretical value of comprehensive organisational justice frameworks.

The significance of distributive justice highlights the critical need for implementing fair compensation structures, performance-based rewards, and equitable sharing of outcomes to foster a collective sense of fairness among doctors. Meanwhile, the measures of temporal justice emphasise the importance of respecting their needs for quality time, as a lack of discretion in managing their professional and personal commitments may lead to perceptions of unfair treatment and increased turnover intention. Thus, Malaysian public health stakeholders should strategically align retention policies with the doctors' expectations for fair return benefits and work-life balance. Additionally, healthcare organisations should prioritise minimising disruptions to their time outside official duties. Although procedural justice and interactional justice were not significant predictors of turnover intention, preserving these aspects remains valuable for fostering belongingness and mutual respect within Malaysia's collectivist work culture, as they may serve as complementary factors that enhance the primary effects of distributive justice and temporal justice interventions.

Several limitations warrant consideration. This study's focus on Klang Valley public hospital professionals limits generalisability to those in other sectors, regions, and healthcare professions. Future research may broaden the scope geographically and across diverse healthcare professions for a more comprehensive understanding. Meanwhile, the cross-sectional design undertaken by the present study restricts causal inferences. Thus, longitudinal studies are needed to explore the temporal dynamics of these relationships and the impact of policy changes over time. The study's focus on internal justice overlooks external factors like patient interactions, which may significantly influence turnover intention. Future research should investigate these external justice perceptions. The reliance on self-reported questionnaires also suggests a need for future studies to incorporate multi-perspective assessments, including supervisor or colleague feedback, to enhance the objectivity and robustness of the findings regarding factors influencing turnover intention among public health professionals.

In conclusion, this study addresses a critical research gap by examining Malaysian public doctors' turnover intention through the lens of organisational justice. Our findings revealed a moderate intention to leave among participating doctors, with distributive and temporal justice emerging as significant inverse predictors. This highlights how equitable rewards and time autonomy supersede procedural and interactional aspects in doctor retention, challenging conventional justice theories and the universal applicability of reciprocity in healthcare settings. For policymakers, these insights suggest prioritising outcome-based retention strategies over process-focused interventions. Although limited by its regional focus and cross-sectional design, this research provides a foundation for future longitudinal studies across diverse healthcare contexts. Such work could further develop contextually adapted retention models essential for sustaining Malaysia's public healthcare workforce amid growing global competition for medical talent.

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