Impact of psychosocial risk on intention to leave work during COVID-19 in Indonesia: The mediatory roles of burnout syndrome and job satisfaction

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ABSTRACT

The COVID-19 pandemic intensified the complexity of work in the health sector, leading to an increase in the intention to leave work (ITL) in Indonesia. Previous research has revealed a theoretical gap in investigating the roles of burnout syndrome (BS) and job satisfaction (JS) as mediators of the effect of psychosocial risk (PR) on ITL. This research study aimed to fill this gap by examining the effect of PR on ITL during the COVID-19 pandemic, with BS and JS as mediators. Data was collected from 306 health workers in public and private hospitals of Central Jakarta, Indonesia. This data was analyzed as part of a cross-sectional research study involving the partial least square-structural equation modeling (PLS-SEM) method and using SmartPLS software. The questionnaire was based on the Copenhagen Psychosocial Questionnaire (COPSOQ) III short version, the Burnout Assessment Tools (BAT), and a modified Turnover Intention. The findings revealed that, within the direct effect pathways, JS was the highest predictor of health workers' ITL, and workplace PR significantly impacted employees' JS and BS. Another notable finding was related to the research gap vis-a-vis the indirect effect pathways: it showed that JS and BS had partial mediatory power over the relationship between PR and ITL. BS and JS were found to have a high and significant impact on employees' ITL. Therefore, this research study has contributed to the model's novelty in measuring ITL mediated by JS and BS.

1. Introduction

The COVID-19 pandemic has resulted in more than 113 million infections and over 6.1 million deaths worldwide, as of March 2022 [1]. In Indonesia, the site of this research study, the number of confirmed cases exceeded 6 million, with 2.6% deaths. Further, the locus of the research study, the Special Capital Region of Jakarta province, recorded the highest number of cases, that is, more than 1.2 million cases with a 1.2% death rate, as of April 2022 [2]. According to Bandyopadhyay et al. as many as 152,888 health workers were infected, and 1,413 died [3]. Moreover, the Indonesian Doctors Association stated that 647 health workers died in Indonesia between March 2020 and mid-January 2021, representing the highest number of health worker deaths in Asia [4]. Further, 2,087 health workers died in Indonesia between March 2022 and March 2023 [5]. Such conditions have contributed to a great rise in the intention

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to leave work (ITL) among health workers in Indonesia [6,7].

ITL refers to a person's desire or anticipation to leave work or a position at work [8]. A high level of ITL can result in turnover, which can be a direct or indirect economic problem [9,10]. Further, a high turnover level is associated with increased costs for the recruitment process and additional training for new employees. Moreover, it significantly impacts group performance and motivation [11].

The Nursing Solutions Inc. (NSI) has issued the NSI National Health Care Retention and Registered Nurse (RN) Staffing Report, which states that the turnover percentage of healthcare workers in America is 17.8%, with a predicted loss of 306,400 US dollars (USD) per year for every percentage increase in turnover [12]. In other countries, the percentage of nurse turnover ranges from 15% to 44% [13]. According to research studies conducted in several Indonesian hospitals, the turnover rate ranges from 12.78% to 53.5%, with the highest turnover rate in Jakarta [14]. The turnover rate has exceeded a reasonable threshold of 5–10% [15]; therefore, organizations must analyze the factors influencing employees' ITL, so as to predict turnover.

The ITL variable is a form of intention, which represents the inclination of human behavior in the context of working within an organization. Therefore, it was important to base this research study upon the theory of organizational behavior, which studies human behavior within organizational settings [16,17]. Conceptually, the theory of organizational behavior is a combination of several disciplines including psychology, sociology, economics, and anthropology, focusing on employees working in real organizations rather than in controlled situational approaches such as experiments [18,19]. Research related to organizational behavior generally measures an individual's work behavior based on attributes explaining how such behavior can be shaped and influenced by other variables [18]. Consequently, this study aimed to investigate ITL behavior in relation to the variables influencing it.

Psychosocial risk (PR) at work is believed to influence ITL, which measures whether workers intend to leave their jobs, implying that without specific intervention, the workforce will change jobs [20]. According to Ntow et al. public relations influence organizational outcomes and significantly predict job turnover intentions [21]. Studies outside the health sector have shown that workers in hazardous working conditions were more likely to change jobs voluntarily; if employers did not improve such conditions, the workers would leave [22]. Several health workers in Indonesia were infected with COVID-19, resulting in a relatively high mortality rate, further increasing health workers' PR [3,4].

In addition to PR, burnout syndrome (BS) is thought to impact employees' ITL. BS is a combination of inability and reluctance to make the necessary efforts to achieve set work targets [23]. Previous studies conducted by Knani et al. as well as Scanlan and Still found that burnout positively affects ITL [24,25]. In particular, Knani et al. explained how high emotional exhaustion and depersonalization could increase ITL [24].

Meanwhile, job satisfaction (JS) can also impact ITL. Dissatisfaction at work increases workers' desire to change jobs [26]. A positive feeling resulting from evaluating one's job characteristics is referred to as JS [27]. JS is an individual assessment of the quality of human resources related to work [28]. A research study by Liu et al. showed that JS negatively affected ITL, meaning that as a person's JS increased, their ITL would decrease [29].

Research has been conducted on PR and ITL; however, there has been limited research investigating the mediatory role of BS and JS in relation to the impact of PR on ITL. For example, a study conducted by Li et al. examined PR and ITL by measuring predictors such as commitment and JS, but it did not address BS [26]. Similarly, another study by Tim et al. explored PR and ITL through factors such as perception of inclusion climate, workplace bullying, and psychological stress, but it did not consider the influence of BS and JS [27]. Further, in the context of hospitals in Indonesia, a research study by Wibowo et al. examined job demand, job stress, and ITL factors in the context of primary manufacturing departments [30]. Also, research by Putri and Ariyanto examined job insecurity, job stress, and ITL in the context of hotel employees [31]. However, these two studies did not study JS and BS together as mediators within one research model. Thus, this research study has tried to fill this gap in extant literature by investigating the influence of PR on ITL — with BS and JS as mediators — among hospital health workers during the COVID-19 pandemic. Therefore, this research study has contributed a model that can measure ITL based on PR antecedents using BS and JS mediation, within one research model, especially in the context of health workers in Indonesia. This research model is important for hospital management in Indonesia, in order to simultaneously predict the antecedents that can increase employees' ITL, namely BS, and the antecedents that can reduce employee ITL, namely JS, within one research model.

This paper is presented in several stages, starting from the introductory section, which explains the context of hospitals in Indonesia and the absence of research mediated by JS and BS on ITL. The subsequent section presents ITL, PR, JS, and BS theories to build a theoretical research framework and hypotheses. The research methods section provides the research design, population, sample calculations, measurement, and data collection and analysis techniques, followed by an explanation of the analysis of research data and a discussion of the findings. The final section presents the conclusions, limitations, and suggestions for future research. Managerial and theoretical implications are also offered, based on the findings of this research study.

2. Literature review and hypotheses development

2.1. Relationships among psychosocial risk, burnout syndrome, and intention to leave

ITL refers to the possibility of someone leaving their current job within a specific time frame, potentially resulting in a real job change [32,33]. According to most experts, ITL is a workplace phenomenon that should be avoided; this view considers the associated costs incurred for recruitment and selection of new employees or the costs of failure incurred during the initial period [34,35]. ITL depends on the organization's ability to create a decent work environment, so that employees feel comfortable while working and interacting [36]. According to Bothma and Roodt, losing dependable employees can negatively impact organizations by disrupting

organizational functions, service delivery, and administration [37]. Further, re-recruitment and retraining can result in additional costs for the organization.

PR at work is considered to be a factor influencing employees' ITL. The design and management of the workplace as also its social and environmental contexts play a role in shaping physical and psychological risks [38]. The term 'risk' indicates that certain combinations of psychosocial factors can impact an employee's potential to experience stress in the workplace and adversely affect their health [39]. Hansen et al. noted that a worker's or employee's psychosocial condition can be observed through work environment factors, including the nature and content of work, work management, work design and components, and social relationships [40]. A conducive work environment is believed to encourage the growth and development of employees; however, a non-conducive work environment can result in stress and work pressure, thereby contributing to an employee's high desire to change jobs [41]. Additional research by Knani et al. and Ntow et al. determined that PR positively affected a person's ITL, indicating that the higher the PR at work, the higher would be the employee's desire to leave (PR→ITL) [42,24].

PR at work affects BS and employees' ITL. Maslach et al. defined BS as a combination of emotional exhaustion, depersonalization, and decreased personal achievement due to chronic work stress [43]. Meanwhile, Schaufeli and Taris defined burnout as a combination of inability and reluctance to make the necessary efforts to achieve work targets [23]. Knani et al. showed that various workplace factors influenced BS, including high psychological demands, limited decision-making or control, and social support [24]. BS is typical among health workers because of work situations requiring emotional, physical, and intellectual involvement with patients [44,45]. Soto-Rubio et al. discovered that PR, specifically in terms of the emotional aspect of work, positively and significantly affected burnout among nurses in Spain [46]. Also, Freimann's research on nurses at a university hospital in Estonia found that, their work has high cognitive and emotional demands, requires quick responses in various situations, and often has to hide personal emotions, thereby causing high stress and burnout (PR→BS) [47].

BS is another factor thought to influence employees' ITL. The World Health Organization [48] defined BS as a collection of symptoms occurring because of negative behavior change caused by poorly managed, long-term work pressure. BS occurs when an employee has exceeded their work stress limitations, resulting in psychosomatic disorders that affect the desire to leave work [49]. Nurses experience burnout because of emotional exhaustion and depersonalization at work [50]. A systematic review study conducted by Woo et al. found that, out of 45,539 nurses in 46 countries, 11.23% experienced high levels of burnout symptoms [51]. Previous studies conducted by Basar and Basim, Chênevert et al. Dall'Ora et al. and Leineweber et al. noted that high BS increases employees' ITL [52–55]. In addition, research by Baquero explained that, when employees had work demands that were too high and continued to escalate, it could cause frustration, especially when finally work or personal life was neglected, thus encouraging the desire to leave their work (BS→ITL) [56].

Research has showed that PR positively affected BS [24,45,46]. Further, research studies also found that BS positively affected ITL [52–55]. Therefore, the three variables were assumed to be related and could be investigated using the mediation model, because when a large number of employees experienced a high level of PR, which could be in the form of a poor relationship with colleagues and leaders accompanied by high work pressure and stress causing burnout, it was suspected that it would affect their ITL [24]. However, BS' mediatory role between PR and ITL remains understudied. Therefore, this research study has examined the following pathway: (PR→BS→ITL).

Based on the theoretical framework described above, this research study proposed the following hypotheses:

H1.   PR positively affects ITL (PR→ITL);

H2.   PR positively affects BS (PR→BS);

H3.   BS positively affects ITL (BS→ITL); and

H4.   PR positively affects ITL through BS (PR→BS→ITL).

2.2. Relationships among psychosocial risk, job satisfaction, and intention to leave

Soto-Rubio et al. noted that PR was a significant predictor of JS [46]. According to George and Jones, JS is a collection of the feelings and beliefs that a person has toward their work [57]. Working conditions with high PR, characterized by a work environment with high uncertainty, significantly affect the level of employee JS [58]. On the contrary, research conducted by Xie et al. found that when employees experienced psychological safety at work, they would feel a high level of JS [59]. Several factors underlying employee JS are related to payment, promotion, co-workers, supervisors, and the work itself [60]. In particular, Inegbedion et al. mentioned that workload had a specific impact on JS [61]. Further, the European Agency for Safety and Health at Work, in collaboration with the European Foundation for the Improvement of Living, issued a report stating that several PR variables had a very close relationship with JS, based on the results of the logistic regression performed [62]. According to Pujol-Cols and Lazzaro-Salazar, several aspects of PR affected JS, including psychological demands, low autonomy, lack of social support and leadership, multiple attendances, lack of appreciation, and job insecurity (PR→JS) [39].

Lambert discovered that JS affected ITL, implying that the higher an employee's JS, the lower their ITL [63]. JS is an individual's subjective assessment of feelings or attitudes that measure work and work environment, amounting to satisfactory or unsatisfactory results [64]. When employees are satisfied with their work, they exhibit positive work attitudes, and vice versa; dissatisfaction encourages the emergence of negative work attitudes [65]. Cortese added that the organizational aspects of work, such as job status, salary, interpersonal relationships, and position, affected health workers' ITL — in this case, that of nurses [66]. Wang et al. discovered that nurses dissatisfied with heavy workloads and inappropriate organizational rewards experienced high ITL [67]. Similarly, research

by Gebregziabher et al. found that nurses' dissatisfaction with low work autonomy led to a high level of ITL [26]. In addition, research conducted by Dodanwala and Santoso found that satisfaction with work supervisors and satisfaction generated by employee JS could reduce the levels of ITL (JS→ITL) [68].

Studies have revealed that PR positively affects JS [39,46]. Further, previous research also found that JS positively affected ITL [63, 66,67]. Therefore, the three variables have been assumed to be related and can be investigated using the mediation model, because the PR in the workplace is closely related to work interactions with colleagues and superiors, workplace social support, and work autonomy, which affect one's level of JS and ITL [39,46]. However, the role of JS as a mediator in the relationship between PR and ITL has not been explored, thus making this pathway (PR→JS→ITL) a novel aspect of this research study.

According to the theoretical framework described above, this research study has proposed the following hypotheses:

H5. PR positively affects JS (PR→JS);

H6. JS positively affects the ITL (JS→ITL); and

H7. PR positively affects the ITL through JS (PR→JS→ITL).

3. Research methodology

3.1. Research design

A cross-sectional design was employed in this research study, using the partial least squares structural equation modeling (PLS-SEM) method. PLS-SEM is useful for nonparametric data that do not require the use of the classical assumption test [69,70]. Further, PLS-SEM was found suitable for this research study, because it allows examination of the relationship among latent variables that cannot be observed directly but can be discerned through indicators [71]. The latent variables included in this research study are as follows: PR as an exogenous variable, ITL as an endogenous variable, and BS and JS as exogenous and endogenous variables. The data was collected between November and December 2021.

3.2. Participants

This study was conducted in the area of human resource management in the hospital industry. All hospitals in Indonesia are regulated by the provisions of the Ministry of Health of the Republic of Indonesia. When this study was carried out, all hospitals had received direct instructions from the Ministry to handle Covid-19 patients as best as possible, because the level of exposure to the virus was very high. Therefore, the research study was focused on health personnel.

The sample size was calculated based on data obtained from the Ministry of Health, Republic of Indonesia. The research population consisted of 43 hospitals with 6,903 health workers in Central Jakarta, including 562 general practitioners and 6,377 nurses [72]. Central Jakarta City was chosen as the locus for this study, because it had the highest number of health workers among the cities in Daerah Khusus Ibukota (DKI) Jakarta Province and the highest number of COVID-19 cases [72,73]. The turnover rate considered for this research study was 20.8% [74], and the number of samples was determined according to the Lemeshow formula. The following equation presents details of the sample data calculation:

$$n = \frac{z_{1-\frac{\alpha}{2}}^2 P(1-P)}{d^2} \ \rightarrow \ n = \frac{1.96^2 \, x \, 0.208(1-0.208)}{0.05^2} = 253.13 \rightarrow 253$$

where

n: sample size
$z_{1-\frac{\alpha}{2}}^2$: standard distribution value, a confidence level of 95%, a significance level of 0.05 → 1.96
P: turnover rate → 20.8% = 0.208
d: absolute accuracy → 5% = 0.05.

After the sample data was calculated, the calculation was continued by considering the dropout criteria of 10% that did not meet the requirements. The following is the final calculation involved in the research data sample:

$$n' = \frac{n}{1-f} \ \rightarrow \ n' = \frac{253}{1-0.1} \rightarrow 281$$

where

n: sample size
n': final sample size with dropout rate
f: dropout rate → 10% = 0.1

The minimum required sample size was 281. However, 306 respondents were included in this study to obtain more precise results.

This is in accordance with Hair et al.'s explanation that, in research using PLS-SEM, larger data samples can enhance the consistency of research results [69]. Therefore, the quality of the achievement of this research data sample is 108.90%.

Considering the COVID-19 pandemic circumstances, this research study used convenience sampling. Hence, the research data depended on respondents' willingness to fill out the questionnaire. Google Forms was used to collect data online. The questionnaire link was then distributed to health workers via the hospitals' human resources department. To ensure that the sample data could be generalized to the research population, we analyzed the data using a bootstrapping technique following the PLS-SEM method.

3.3. Measures

In this research study, constructs were measured using a questionnaire instrument adapted from theory and previous research. All construct questionnaire items were tested for statistical validity using the PLS-SEM method, which requires a factor loading of >0.6 and an average variance extracted (AVE) of >0.5, according to Ref. [69].

PR was measured by adapting the short version of the Copenhagen Psychosocial Questionnaire (COPSOQ) III on a five-point Likert scale with five indicators: work demands, work organization and job content, interpersonal relations and leadership, interactions between individuals and the workplace, and social capital [75]. The Cronbach's alpha of PR stood at 0.808.

BS was measured by adapting the Burnout Assessment Tools (BAT) indicators developed by Schaufeli et al. on a five-point Likert scale consisting of three indicators from the core symptoms: exhaustion, mental distancing, cognitive impairment, and emotional impairment [76,77]. The Cronbach's alpha of BS was recorded at 0.836.

Meanwhile, JS was assessed based on Dolbier et al.'s and Fisher's works on a five-point Likert scale consisting of five indicators, namely, salary satisfaction, supervision, promotion, relationships with colleagues, and the work itself [78–80]. The Cronbach's alpha of JS was 0.893.

Finally, ITL was measured by adapting the Turnover Intention Scale developed by Bothma and Roodt (2013), using a 5-point Likert scale. The instrument consists of four statements related to thoughts of leaving work and looking for other job opportunities. The Cronbach's alpha of ITL was 0.899.

3.4. Data analysis

The research data was divided into two types. The first type was nominal data for the respondent profile, which was descriptively analyzed using percentage calculations. This information described the respondents' background, including their gender, age, occupation, working period, and the type of hospital wherein they were employed. The second type was interval data, which was in the form of questionnaire responses with a scale of 1 (strongly disagree) to 5 (strongly agree). This data was analyzed using descriptive and inferential methods.

For data analysis using the cross-sectional design, a common method bias test involving Harman's single factor test was used. The test results were calculated using SPSS software. The general rule for this test is to obtain less than 50% for the variance value [81]. The subsequent data analysis was conducted using the PLS-SEM method. First, descriptive statistics related to the questionnaire data were obtained by calculating the mean and standard deviation for each construct. Meanwhile, PLS-SEM inferential data was divided into two models: measurement (outer model) and structural (inner model). The measurement model depicted the relationship between the indicator variables and the construct [69]. The outer model was used to determine the variables' convergent as well as discriminant

Table 1
Respondents' profile.

Categories	Total (n)	Percentage (%)
Gender		
Male	106	34.60%
Female	200	65.40%
Age (years)		
<20	3	1.00%
20–29	98	32.00%
30–39	108	35.30%
40–49	70	22.90%
≥50	27	8.80%
Occupation		
General practitioner	73	23.90%
Nurse	233	76.10%
Working period (years)		
<1	32	10.50%
1–5	126	41.20%
6–10	94	30.70%
>10	54	17.60%
Hospital type		
Public	43	14.10%
Private	263	85.90%

(Source: authors' data analysis).

validity and reliability. The outer loadings and the AVE were evaluated as part of the convergent validity test. Since the questionnaire was adapted and modified to fit the context of the research locus, the factor loading used was >0.60 and AVE was >0.5 [69]. Reliability was tested using Cronbach's alpha and composite reliability was tested using a threshold of >0.7 [69]. Further, the structural model demonstrates the predictive power of latent variables. This section included three types of tests: multicollinearity analysis via heterotrait monotrait ratio (HTMT) with the <0.85 threshold [82], coefficient of determination test (R^2), and hypothesis testing via path coefficient analysis [69].

4. Results

4.1. Respondents' profile

Gender, age, occupation, length of employment, and hospital type were used to categorize the respondents. According to descriptive statistical data, female nurses in private hospitals outnumbered male nurses. Most respondents were between the ages of 30 and 39 years. Further, most respondents in this research study had worked for 1–5 years. Table 1 shows the respondent's profile in detail.

4.2. Common method bias test

A cross-sectional research study used the common method bias test to ensure that the findings of the study were not the result of instrument artifacts [81]. This research study used Harman's single-factor test to analyze common method bias; it yielded a result of 39.99%. This result fulfills the criterion of less than 50%, indicating that this research has no common method bias [81]. Table 2 shows the results of Harman's single-factor test.

4.3. Measurement model (outer model)

To examine data validity and reliability, this research study analyzed the validity and reliability of the indicator items representing the variables by using a measurement or outer model. The first test determined whether the loading factor and AVE had convergent validity. The result showed a factor loading value between 0.607 and 0.911, and the AVE value of each construct was found to be greater than 0.5; this indicates the validity of the research data [69]. Further, all constructs were declared reliable, because they met the threshold of >0.7. Table 3 shows the results of the outer model test [69].

The second test assessed discriminant validity, which measures the construct's uniqueness compared to other constructs [69]. The HTMT ratio was used to assess discriminant validity by calculating the mean of all construct correlations. The HTMT ratio value should be less than 0.85 [82]. According to the data analysis findings, all constructs demonstrated discriminant validity, as shown in Table 4.

4.4. Measurement model (inner model)

The multicollinearity test of the inner or structural model was performed by calculating the value of the variance inflation factor with a threshold of <5.0 [69]. It aimed to ensure that each exogenous construct was distinct from the others and was not multicollinear. The multicollinearity test results revealed that all exogenous constructs had a value of <5.0, similar to the items of the constructs, and thus they were declared as having no multicollinearity. Tables 5 and 6 show the results of the multicollinearity test in detail.

The next inner model test was the determinant coefficient test for endogenous variables. The R-square value was used to determine how well the research model predicted the effect of exogenous variables on endogenous variables within the structural model. The R-square value is interpreted in three ways, with the values of 0.25, 0.50, and 0.75 indicating weak, moderate, and strong predictive ability, respectively [69]. The determinant coefficient analysis revealed that the BS had a fairly good predictive ability, with PR explaining 36.1% of this variable. The remaining 63.9% were influenced by other variables that have not been investigated in this research study. JS and ITL had moderate predictive ability. Moreover, the PR variable explained 53.5% of JS, and the remaining 46.5% were explained by other variables. Meanwhile, ITL was explained by PR, JS, and BS by 51.8%; the remaining 48.2% were explained by other variables. Table 7 shows the determinant coefficient test results in detail.

The final inner model test computed the path coefficient value and provided an answer to the research hypothesis. To determine the value of positive or negative influence, we set the path coefficient value from −1 to 1 [69]. Meanwhile, a bootstrapping scheme was used to test the significance of the results for generalization to the population, by considering the T-value or the *P*-value with the rule of

Table 2
Harman's single-factor test.

Total Variance Explained		
Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
9.198	39.992	39.992

(Source: authors' data analysis).

Table 3

Convergent validity and reliability.

Constructs	Loading Factor	AVE	Alpha	CR
Psychosocial Risk		0.511	0.808	0.862
PR1	0.618			
PR2	0.768			
PR3	0.749			
PR4	0.676			
PR5	0.764			
PR6	0.699			
Burnout Syndrome		0.543	0.836	0.875
BS1	0.854			
BS2	0.859			
BS3	0.623			
BS4	0.686			
BS5	0.751			
BS6	0.607			
Job Satisfaction		0.581	0.879	0.906
JS1	0.721			
JS2	0.739			
JS3	0.812			
JS4	0.859			
JS5	0.811			
JS6	0.727			
JS7	0.645			
Intention to Leave		0.767	0.899	0.929
ITL1	0.911			
ITL2	0.874			
ITL3	0.834			
ITL4	0.882			

(Source: authors' data analysis)

Table 4

Discriminant validity (heterotrait monotrait ratio).

	Psychosocial Risk	Intention to Leave	Job Satisfaction	Burnout Syndrome
Psychosocial Risk				
Intention to Leave	0.691			
Job Satisfaction	0.842	0.688		
Burnout Syndrome	0.641	0.584	0.454	

(Source: authors' data analysis).

Table 5

Multicollinearity test per variable.

Exogenous Variables	Variance Inflation Factor		
	Intention to Leave	Job Satisfaction	Burnout Syndrome
Psychosocial Risk (PR)	2.728	1.000	1.000
Job Satisfaction (JS)	2.153		
Burnout Syndrome (BS)	1.565		

(Source: authors' data analysis).

thumb of >1.96 or <0.05, respectively [69].

Based on the path coefficient test results, all hypotheses were supported and found to be significant for the research population. The results indicated that PR positively affected ITL ($\beta = 0.140$, $p = 0.005$). PR also had a positive effect on BS ($\beta = 0.601$, $p < 0.001$). Meanwhile, BS positively affected ITL ($\beta = 0.307$, $p < 0.001$). Further, PR negatively affected JS ($\beta = -0.732$, $p < 0.001$). JS also negatively affected ITL ($\beta = -0.403$, $p < 0.001$). Table 8 provides the detailed results of the path analysis.

4.5. Mediatory effect

The path coefficient of the indirect hypotheses is shown in Table 9. BS was found to be effective in mediating PR's positive and significant effect on ITL ($\beta = 0.184$, $p < 0.001$). This value surpassed the direct effect of PR on ITL. Moreover, JS was also found to effectively mediate the positive and significant effect of PR on ITL ($\beta = 0.295$, $p < 0.001$). This value also outperformed the direct effect in H1. Both H4 and H7 have been supported.

Table 6
Multicollinearity test per item.

Item	Variance Inflation Factor	Item	Variance Inflation Factor
Intention to Leave		Burnout Syndrome	
ITL1	3.181	BS1	2.766
ITL2	2.918	BS2	2.962
ITL3	2.352	BS3	1.793
ITL4	2.745	BS4	1.873
		BS5	1.789
Job Satisfaction		BS6	1.371
JS1	4.375	Psychosocial Risk	
JS2	4.251	PR1	1.479
JS3	2.308	PR2	1.845
JS4	2.862	PR3	2.096
JS5	2.137	PR4	1.875
JS6	1.847	PR5	1.710
JS7	1.388	PR6	1.500

(Source: authors' data analysis).

Table 7
Coefficient determinant.

Endogenous Variables	Nilai R-Squared
Burnout Syndrome	0.361
Job Satisfaction	0.535
Intention to Leave	0.518

(Source: authors' data analysis).

Table 8
Direct hypotheses test result.

Relationship	Path Coefficient (β)	Sample Mean	Standard Deviation	T- value	P-value	Decision
H1: PR → ITL	0.140	0.138	0.054	2.585	<0.005	Supported
H2: PR → BS	0.601	0.603	0.034	17.771	<0.001	Supported
H3: BS → ITL	0.307	0.310	0.055	5.659	<0.001	Supported
H5: PR → JS	−0.732	−0.732	0.025	28.738	<0.001	Supported
H6: JS → ITL	−0.403	−0.404	0.044	9.141	<0.001	Supported

(Source: authors' data analysis).

Table 9
Mediation hypotheses test result.

Relationship	Indirect Effect (β)	Direct Effect (β)	Total Effect (β)	T- value	P-value	Decision
H4: PR → BS → ITL	0.184	0.140	0.324	5.512	<0.001	Supported
H7: PR → JS → ITL	0.295	0.140	0.435	8.319	<0.001	Supported

(Source: authors' data analysis).

The variance accounted for (VAF) test was used to determine the size of the mediatory effect of BS and JS on the research model. Based on the works of Hair et al. and Zhao et al. the power of mediation was calculated by dividing the value of the indirect effect by the total effect (direct effect plus indirect effect) [69,83]. Hair et al. proposed three criteria for the size of the mediating effect. If the VAF value was <20%, it meant no mediation, more than 20% VAF meant partial mediation, and 80% VAF meant full mediation [69]. Based on the calculation of the effect size of mediation with VAF in this research model, BS and JS in H4 and H7 were seen to have partial mediation. The VAF values of H4 and H7 were calculated as follows:

$$H4 = \frac{0.184}{0.324} = 0.57 = 57\% \text{ (partial mediation)}$$

$$H7 = \frac{0.295}{0.435} = 0.68 = 68\% \text{ (partial mediation)}.$$

The research model obtained in this research study is based on the results of the path analysis provided in Fig. 1.
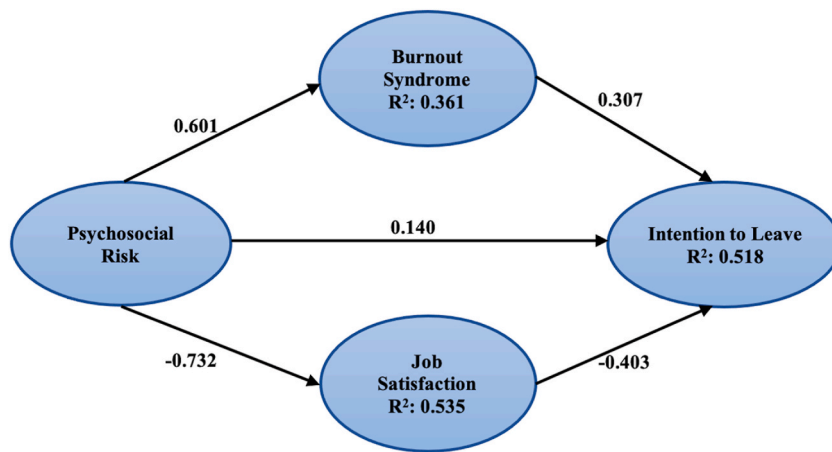According to the research results, three structural equations have been obtained from this research study:

Fig. 1. Research model.
(Source: authors' data analysis).

$$BS = 0.601 \, PR + 0.399e \qquad (1)$$

$$JS = -0.732 \, PR + 0.268e \qquad (2)$$

$$ITL = 0.40 \, PR + 0.307BS - 0.403JS + 0.150e \qquad (3)$$

5. Discussion

5.1. Relationships among psychosocial risk, burnout syndrome, and intention to leave

This research study has been based on the organizational behavior (OB) theory, which aims to understand human behavior that arises when working in organizations [16,17]. This study focuses on the perception levels of individual workers related to PR, BS, JS, and ITL. These four variables are derivatives of the OB discipline from aspects of organizational psychology [16]. Organizational psychology focuses on examining the human mind and behavior in depth and its relation to culture, climate, co-worker relationships, and organizational performance [17,84].

This research study has investigated the relationship between PR and ITL and the mediatory role of BS. This topic has received little attention in the literature, particularly in the context of the COVID-19 pandemic, in developing countries such as Indonesia. This research study's results indicated that PR has a positive effect on ITL. These results have been supported by Hämmig, who claimed that workplace PR is a predictor of employees' ITL [85]. Respondents stated that they were underappreciated by company management and did not receive work support during the COVID-19 pandemic, according to descriptive statistical data. Similarly, Li et al. explained that undesirable psychosocial conditions at work could predict Chinese health workers' ITL due to high work demands, low sense of meaning related to work, and low personal commitment to work in China [86]. Specifically, during the COVID-19 pandemic, nurses face anxiety and stress that arise from their role as healthcare professionals [87]. According to Fernandes and Pereira, poor psychosocial environmental conditions could lead to poor clinical conditions, predictors, absenteeism, and employees' ITL [88].

The results obtained by testing the second hypothesis indicated that the PR variable had a positive effect on BS. This study's findings have been found to be similar to previous research by Ilić et al. which state that PR can increase BS [89]. Soto-Rubio et al. found that emotional factors, interpersonal conflicts, and role conflicts were all significant positive predictors of PR to BS [46]. Further, Franklin and Gkiouleka noted that the COVID-19 pandemic has affected the emotional state of health workers, thereby increasing anxiety, stress, depression, and BS [90]. The influence value discovered in this research was quite high and significant, which meant that if employee PR increased so would BS. According to the descriptive statistics results, a striking attribute of BS, as reported by respondents in this research study, was the lack of enthusiasm for working and serving patients during the COVID-19 pandemic.

The results obtained after testing the third hypothesis indicated that BS had a positive effect on ITL. This study's findings have been found to resemble previous research by Elçi et al. who found that BS, particularly emotional exhaustion and depersonalization, had a positive effect on employees' ITL [91]. According to Mahmod and Rosari, fatigue made workers feel an inability to carry out their jobs, prompting them to consider leaving their present jobs and looking for new ones [92]. Further, workers might search for jobs that are more suitable than their current ones [92,93]. The influence of BS on ITL was also quite strong and significant, so an increase in BS would increase ITL. Some respondents reported feeling lethargic when faced with return to work and dealing with patients during the COVID-19 pandemic.

The following hypothesis addressed a research gap tackled in this research study: the role of BS as a mediator in the influence of PR on ITL. Upon testing the fourth hypothesis, it was found that BS successfully mediated the influence of PR and ITL with a partial mediating effect size. This finding was significant, because this mediatory relationship had not been extensively researched in the

context of Indonesian health workers. The indirect effect (H4) had a higher path coefficient value than the direct effect (H1), indicating that the role of this mediation had an additional impact on ITL. The role of BS in enhancing ITL was consistent with Hämmig's research, which showed that emotional and mental job strain increased BS and ITL [85]. Therefore, the increase in PR in the workplace could lead to an increase in BS, thereby alleviating ITL. According to Moloney et al. BS in workers plays an important role in transmitting the impact of PR and the desire to change jobs or professions [94].

Based on the findings from the PR-BS-ITL relationship, practical implications can be drawn wherein organizations must take concrete steps to reduce PR by providing a workload that aligns with job resourcing. Excessive workload will impact job burnout [86], whereas an appropriate workload tends to result in occupational health [95]. The context of this research study has been the struggle of health workers to handle Covid-19. Therefore, organizations need to provide support and appreciation for the hard work of health workers during the handling of the Covid-19 pandemic; one of the ways of doing so is providing fair salaries and incentives [96]. Such measures have been expected to reduce employee ITL.

5.2. Relationships among psychosocial risk, job satisfaction, and intention to leave

According to the fifth hypothesis, PR harms JS, meaning that the higher the PR perceived by employees, the lower the JS. The findings obtained by testing this hypothesis were consistent with those of previous research by Soto-Rubio et al. as well as Dierdorff and Morgeson who discovered that PR was a predictor of ITL [46,97]. The impact of this hypothesis has been high and significant, so this has been a major concern for the management in managing employees' ITL. According to descriptive statistical data, respondents felt less comfortable communicating about changes in the company, which caused feelings of PR. This is consistent with the views of Giménez-Espert et al., who conjectured that because of the COVID-19 pandemic, clarity of information and availability of resources were critical in influencing JS [98]. Good conflict management and properly conveyed information could be protective factors for JS [99,100]. Further, respondents stated that they were dissatisfied with the salary offered, implying a significant influence of the two variables on each other. According to Sureda et al. PR has negative impacts on JS, one of which is related to salary and promotion [101].

The results of testing the sixth hypothesis revealed that the JS variable hurts the ITL. These results are consistent with the findings of Yan et al. who discovered that JS has a significant negative effect on a person's ITL [102]. The effect found in this research study is quite strong, implying that a decrease in JS would affect employees' ITL. According to the findings of this research study, JS was generally low, particularly in terms of salaries, promotions and professional funding assistance, work evaluation implementation, and workload distribution. This is consistent with the findings of Masum et al. with regard to Turkish health workers; they explained that dissatisfaction with salary and workload could impact ITL [103].

The testing of H7, which addressed a research gap that this research study sought to fill, revealed a notable finding: JS successfully mediated the relationship between PR and ITL, albeit with a sizeable effect of partial mediation. This finding was significant because the mediatory relationship was stronger than the direct effect, implying that the mediatory role had a greater impact on employees' willingness to change jobs. This mediatory relationship observed in the case of health workers has received little attention, particularly in Indonesia. Lobburi found that social support from superiors, coworkers, family, and friends increased JS, thereby preventing ITL. In contrast, the lower the level of employee JS, the lesser was the ITL [104].

Practical implications can be drawn based on the findings from the PR-JS-ITL relationship, whereby the organization must take concrete steps to ensure that employees experienced a comfortable work environment and had high job satisfaction. This can be achieved by ensuring that the management provides clear job descriptions and targets as well as various hospital changes and facilities that support work implementation [98]. When the research study was conducted, health workers struggled to handle COVID-19; hence, there were several regulatory changes as part of the Ministry of Health regulations and in internal hospitals. In addition to these changes, hospital management must also ensure that employees receive fair salaries, promotions, and job appraisals, leading to high JS [103]. Such steps are expected to reduce employee ITL.

5.3. Theoretical implications

Research has been conducted on PR and ITL [24,86,105]. However, very little research has investigated the mediatory role of BS and JS in the impact of PR on ITL. This research study has filled a research gap identified in the literature, by examining JS and BS as mediators in the relationship between PR and ITL. The two variables: BS and JS mediated the relationship between PR and ITL with partial mediatory power. It follows that an increase in BS and a decrease in JS will increase the influence of PR on employees' ITL. Further, the value of the determinant coefficient of more than 0.5 implies that this research model can accurately predict the antecedents of the ITL. These findings provide theoretical implications. This research study has thus contributed a novel aspect to the literature in the field, in the form of a model that could measure intention to leave based on JS and BS factors.

5.4. Managerial implications

Several practical suggestions for managerial implementation can be made based on the findings of this study. Since low JS has the greatest impact on employee turnover intentions, management must prioritize the enhancement of JS. This can be achieved by paying employees on time, assigning appropriate workloads, and providing allowances to help employees improve their professional competence. Further, the management must ensure that supervisors build positive relationships with employees through fair job evaluations. In terms of career paths, fair and open promotions can also boost employee JS. These suggestions are useful for reducing

burnout. This can be accomplished by superiors providing support to subordinates at work, conducting recreational events, offering opportunities for self-development through seminars or workshops, developing strategic plans for professional career development for healthcare workers, and providing counselors to assist employees. Such measures will have an indirect impact on the mediatory relationship between workplace PR and employee ITL.

6. Conclusion

Based on the results of the research study, several conclusions can be drawn. First, BS was found to have a highly positive effect on ITL. Therefore, hospital management must work to reduce employee burnout rates by providing a workload matching job resources. Second, JS was the strongest predictor influencing ITL with a negative value. This means that the higher the level of employee JS, the lower the desire to change jobs. Therefore, organizations must try to increase job satisfaction to reduce employees' ITL.

In addition, this research model has a reasonably good ability to predict employee ITL, as indicated by the value of the determinant coefficient. So the third conclusion that can be drawn is that organizations with a high PR level, such as hospitals, must provide higher JS to mediate employees' ITL. This can be done by ensuring that employees receive fair wages and incentives as well as fair work appraisals.

6.1. Limitations and research suggestions

This research is limited to hospitals in Central Jakarta, Indonesia, a developing country. Hospitals in Indonesia have a variety of ownership and management, namely public and private, which impacts patient-handling capacities based on hospitals and health technologies. Therefore, future researchers can conduct research in a broader context, such as in developed countries, to comprehensively compare results and findings.

This research study was conducted during the COVID-19 pandemic; hence, the research data was solely dependent on respondents' willingness to complete the questionnaire. The sampling technique employed was non-probability sampling. This impacted the disproportionality of the research sample in terms of hospital type, with healthcare workers from private hospitals dominating the respondents. Therefore, future research must use a proportional sampling technique to obtain comprehensive results. Further, since this research study relied on self-reported questionnaire responses, its findings cannot fully present causal relationships.

Author contribution statement

Felicia Felicia: conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, contributed reagents, materials, analysis tools or data, wrote the paper.

Niko Sudibjo: conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, contributed reagents, materials, analysis tools or data, wrote the paper.

HG Retno Harsanti: conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, contributed reagents, materials, analysis tools or data, wrote the paper.

Ethics statement

This research has been reviewed and approved by the Internal Review Board (IRB) of the Center for Research & Community Development, Universitas Pelita Harapan, with the number 202-IRB/PN-MPD-UPH/XI/2021, which in line with Declaration of Helsinki. This research used non-interventional research (survey) using a questionnaire instrument. The questionnaire distributed explained to the respondents that the research purpose was only for scientific publications. In the research questionnaire, there are no questions regarding the personal data of the respondents that can be identified so that all participants are kept confidential. Participants were also given the freedom to choose to participate or refuse to participate in this research. Informed consent was also asked directly in the questionnaire. Therefore, informed consent was obtained from participants who fulfil the questionnaire.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.heliyon.2023.e17937.

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