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INFLUENCING FACTORS OF BURNOUT AND INTENTION TO LEAVE AMONG MEDICAL PERSONNEL IN PUBLIC HEALTH SERVICE IN THE SOUTHERN REGION OF THAILAND

Panotpong Phatsen[1], Jakkrit Thavorn[2], Worasak Klongthong[3], Bordin Phayaphrom[4], Supaprawat Siripipatthanakul[5]

[1]Master in Business Administration, University Geomatika Malaysia, Malaysia
[2]Thammasat Business School, Thammasat University, Bangkok, Thailand
[3]School for Business and Society, University of York, York, United Kingdom
[4,5]Manipal GlobalNxt University, Malaysia
Corresponding email: jakkrit@tbs.tu.ac.th

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Abstract In many countries, heightened personnel burnout significantly impacts the inclination to leave, affecting medical staff in diverse roles. This study delves into the southern region of Thailand, exploring factors contributing to burnout and the intention to leave public health services among medical personnel. Workload, job strain, and job satisfaction are studied as determinants. The researchers collected the data from 131 participants through an online survey, which was subsequently examined for analysis. Pearson correlation reveals the relationships among variables, after which the hypotheses are tested using multiple regression analysis. Results show significant correlations between workload, job strain, and job satisfaction, influencing burnout and intentions to leave. Workload and job strain positively influence burnout, while job satisfaction negatively impacts it. Burnout positively influences the intention to leave. The finding implies that the public medical service has to manage its workload because it is the cause of emotional and mental disturbances and exhaustion in the body. In addition, the workload is deteriorating the body and making it tired, but having good relationships with co-workers can also lead to job satisfaction.

Keywords: Workload; Job strain; Job satisfaction; Burnout; Intention to Leave

INTRODUCTION

In individuals engaging with COVID-19-diagnosed patients, a notable surge in burnout was observed, escalating from May to October 2020 to the period between February and April 2021 (Müller et al., 2023). The perceptions of workload and burnout among medical-surgical nurses played a pivotal role in determining their intention to leave (Phillips, 2020). The pervasive impact of burnout extends across all professional categories within hospital staff (Marques et al., 2018). A heavy workload, welfare concerns, compensation issues, the possibility of lawsuits, and a lack of legal support from the hospital are just a few of the factors that influence medical staff's intention to leave Thailand. Presently, the Medical Council registers 50,000–60,000 doctors, with 24,600 operating under the Ministry of Public Health. These physicians cater to 45 million individuals within the health insurance system, constituting 70% of the population. This starkly reveals that, on average, there is one doctor for every 2,000 people, significantly below the standard of three doctors per 1,000 (Medical Council, 2023).

The Nursing Council's data highlights a worrisome pattern, showing that 48.86% of recently graduated nurses resign during their first year of employment. This trend continued the following year, with 25% resigning. Despite an annual production of 10,000

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nurses, a sufficient number, the critical issue lies in the Ministry of Public Health's inability to retain nursing professionals (Hfocus news agency, 2023).

The causes of burnout and the resignation of medical personnel are essential problems that can be used to solve the issues and retain medical personnel. In Switzerland, a relationship exists between workload, job stress, the manifestation of burnout symptoms, and contemplation of leaving the profession (Hämmig, 2018). However, as far as is known, there aren't many studies on these matters in public hospitals in the southern region of Thailand. This study is to help fill in the gaps for executives to use this information to correct and improve hospital management to retain medical personnel and prevent them from resigning, including being beneficial to public health.

Hence, this research aims to study the factors that cause medical personnel to burn out and resign from public health services in the southern region of Thailand.

LITERATURE REVIEW

Multidimensional theory

Maslach's 1998 multidimensional burnout theory posits three core components: emotional exhaustion, depersonalization, and diminished personal accomplishment. This model suggests that burnout extends beyond a simple personal stress encounter, delving into the intricate dynamics of social interactions. It contends that burnout is interwoven into the complexities of stress-related personal experiences within a social framework, shaping how individuals perceive themselves and others. To illustrate, consider a scenario where persistent emotional exhaustion leads to detachment, manifesting as depersonalization in professional interactions. It contributes to a diminished sense of personal accomplishment, further deepening the individual's experience of burnout within the broader social context (Maslach, 1998).

Health service system of the Ministry of Public Health in Thailand

The Ministry of Public Health oversees hospitals providing inpatient and outpatient healthcare services. The Ministry of Public Health plays a crucial role in maintaining people's health by organizing a comprehensive health service system, covering aspects such as promotion, disease prevention, medical treatment, and rehabilitation. Consequently, the health service system is organized into distinct levels, encompassing primary, secondary, and tertiary care. Each level carries specific roles and responsibilities, interconnected through a referral system designed to address varying complex health issues (Makonsan et al., 2011).

Workload

Three aspects of workload relevant to daily living are operator effort, input load, and performance or work result. Operator effort encompasses the internal actions of the human operator, while factors or occurrences external to the human operator are contained in the input load. The conventional definition of performance involves intentional data outputs produced by the human operator, serving as inputs for other parts of the man-machine-environment system and providing insights into the expended effort (Johannsen, 1979). Workload emerges as a predictor of burnout and poor mental health. Additionally, burnout significantly predicts the intention to leave (Laschinger et al., 2012).

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Job strain

Job strain is essentially about striking a balance between the mental challenges of a job and the authority or decision-making power that comes with it. The psychological demands encompass various factors such as time constraints, heavy workloads, and conflicting requirements. Control, synonymous with decision-making power, represents the ability to choose how to execute duties and have a voice in workplace affairs (Turcotte & Schellenberg, 2005). Research indicates a positive correlation between job strain and the manifestation of burnout symptoms and contemplation of leaving the profession (Hämmig, 2018).

Job satisfaction

Several individually and organizationally significant behaviours, such as task performance, organizational citizenship behaviour, absenteeism, counterproductive work behaviour, turnover, and organizational profitability, have been identified as being associated with job satisfaction (Judge et al., 2020). Moreover, emotional exhaustion notably predicts job satisfaction (Tarcan et al., 2017).

Burnout

Chronic interpersonal stressors can lead to job burnout, characterized by a prolonged response (Maslach, 1998). Burnout situates each person's experience of stress within a broader organizational framework that reflects how individuals relate to their jobs. Burnout impairs both social and personal functioning. The decline in work quality and the employee's physical and mental well-being can lead to significant repercussions for everyone affected, extending beyond the individual worker (Maslach & Leiter, 2016). While hardiness seems to have a positive impact on reducing burnout, it does not prevent elevated job stress, which contributes to high burnout (McCranie et al., 1987).

Intention to leave

When employees intend to leave their company, it is referred to as having an intention to leave (Ali, 2008). The link between emotional exhaustion, depersonalization among employees, psychosomatic complaints, professional commitment, and desire to leave the job is evident (Jourdain & Chênevert, 2010). There is an increase in burnout among health professionals and their frequent intention to leave (Hämmig, 2018). Based on the literature review, the hypotheses are summarised as follows:

H1: Workload has a significant positive influence on burnout.
H2: Job strain has a significant positive influence on burnout.
H3: Job satisfaction has a significant negative influence on burnout.
H4: Burnout has a significant positive influence on the intention to leave.

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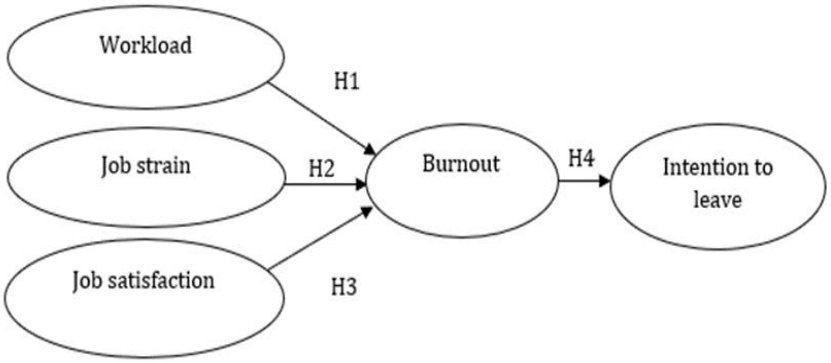

Figure 1. Conceptual framework

METHOD

Population and sampling

In business and social science, G*Power is often the preferred tool for population calculation. To conduct a power analysis using G*Power version 3.1.9.7, begin by downloading, installing, and opening the software. Firstly, select "F-tests" from the test family options, then pick "Linear multiple regression: fixed model, R2 deviation from zero" from the list of statistical tests. Secondly, specify the power analysis type as "A-priori: Thirdly, compute the required sample size given α, power, and effect size." In the input settings, set the power to 0.80, α to 0.05, and the effect size to 0.15. Fourthly, input the number of predictors, which signifies the maximum number of arrows pointing at a dependent variable in the model (Memon et al., 2020). For this study, input four is the number of predictors, providing the details: effect size = 0.15, α = 0.05, power = 0.80. Lastly, G*Power indicated that a minimum sample size of 85 was required for the analysis. This study evaluated multiple regression analysis from 131 valid respondents (more than 85 as the minimum required sample size).

Research method

This study follows a quantitative approach, utilizing online surveys with Likert rating scales to gather data. These surveys were adjusted based on earlier research (Allen & Seaman, 2007). The main variables were evaluated using a five-point Likert scale, allowing respondents to indicate their agreement level, ranging from strongly agree (5) to strongly disagree (1). The performance assessment questions in the survey were constructed based on the findings of Hämmig (2018), Van Den Oetelaar et al. (2016), Kabir & Parvin (2011), Kristensen et al. (2005), and Rudman et al. (2014).

Data collection

The first step is communicating the study's goals to participants before distributing the online survey. Respondents' answers are not made open to the public. This study utilized information from the questionnaire through the Google Form online system and will destroy the data and other information after completing the research. Data collection occurred between August and October 2023.

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Data analysis

We used SPSS to examine the demographic information of the participants. Mean and standard deviation values were determined for each construct and questionnaire item. To gauge the reliability of the variables, we applied a Cronbach's alpha of 0.7, as Thavorn et al. (2022) and Taber (2018) suggested. The relationships between the variables were explored using Pearson correlation analysis. Following the data collection, we employed multiple regression analysis (MRA) to analyze the data and test the hypotheses thoroughly.

RESULTS

Descriptive analysis

According to Table 1, one hundred and thirty-one respondents were medical personnel from public health services in the southern region of Thailand. The respondents completed online questionnaires, which were analyzed. The findings suggest that a majority of the participants were female (85.5%), fell between the ages of 31 and 40 (45.0%), single (58.8%), working in a tertiary care hospital (64.1%), holding a bachelor's degree (87.8%), employed as medical technologists (54.2%), earning a salary between 20,000 and 30,000 Baht (32.10%), and working in Suratthani (61.8%).

Table 1: Profile of respondents (n=131)

Variables	Frequency	Percentage (%)
Gender		
Female	112	85.5
Male	14	10.7
Alternative gender	5	3.8
Age		
20 - 30 years old	45	34.4
31 - 40 years old	59	45.0
41 - 50 years old	11	8.4
Above 50 years old	16	12.2
Status		
Single	77	58.8
Married	52	39.7
Divorce	2	1.5
Service unit type		
Medical centre	9	6.9
Community Hospital	21	16.0
General Hospital	17	13.0
Tertiary care hospital	84	64.1
Educational level		
Below bachelor's degree	10	7.6
Bachelor's degree	115	87.8
Master's degree	6	4.6

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Occupation		
Doctor	2	1.5
Pharmacist	2	1.5
Medical technologist	71	54.2
Nurse	29	22.1
Physical therapist	4	3.1
Thai traditional medicine doctor	3	2.3
Other	20	15.3
Monthly income		
Less than 20,000 Baht	23	17.6
20,000 – 30,000 Baht	42	32.1
30,001– 40,000 Baht	33	25.2
40,001 – 50,000 Baht	16	12.2
More than 50,000 Baht	17	13.0
Region		
Chumphon	2	1.5
Trang	5	3.8
Nakhon Si Thammarat	10	7.6
Narathiwat	10	7.6
Phatthalung	1	0.8
Phuket	6	4.6
Ranong	3	2.3
Songkhla	11	8.4
Satun	2	1.5
Suratthani	81	61.8

Means and standard deviation (Std. Dev.) of each variable, as shown in Table 2, were workload (Mean = 4.35, Std. Dev. = 0.59), job strain (Mean = 3.92, Std. Dev. = 0.73), job satisfaction (Mean = 3.31, Std. Dev. = 0.66), burnout (Mean = 3.84, Std. Dev. = 0.78), and intention to leave (Mean = 3.46, Std. Dev. = 0.84).

Table 2 Means and standard deviation

Items	Mean	Std. Dev.
Workload (WL)		
Your number of extra working hours is too high (WL1).	4.16	0.81
You always work in a hurry to be on time (WL2).	4.45	0.70
An increased workload leads to deteriorating health (WL3).	4.58	0.67
An increased workload reduces happiness at work (WL4).	4.20	0.88
Average	**4.35**	**0.59**
Job strain (JS)		
Work disturbs your emotions and mind (JS1).	4.21	0.86

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Items	Mean	Std. Dev.
Working requires you to hide your true feelings (JS2).	4.18	0.93
Work problems interfere with your sleep during the night (JS3).	4.13	1.01
You bring work home after work (JS4).	3.15	1.08
Average	**3.92**	**0.73**
Job satisfaction (JT)		
You are happy with your work assignments (JT1).	3.11	0.85
You are satisfied with your salary and the performance evaluation that you have received (JT2).	2.52	0.98
When you have problems at work, you have received fairness from your superiors (JT3).	3.02	1.00
You feel secure with the job (JT4).	3.67	0.98
You have a good relationship with your co-workers (JT5).	3.91	0.77
You have a good relationship with your supervisor (JT6).	3.60	0.93
Average	**3.31**	**0.66**
Burnout (BO)		
You feel that your body is exhausted from work (BO1).	4.44	0.79
You feel frustrated and have emotional problems at work (BO2).	3.61	1.02
You feel burned out by your work assignments (BO3).	3.78	1.02
You feel exhausted in the morning when you come to work (BO4).	3.54	1.05
Average	**3.84**	**0.78**
Intention to leave (IL)		
You think about leaving the profession (IL1).	3.33	1.17
You talk negatively about your profession (IL2).	3.31	1.16
You feel tired when you receive additional work (IL3).	3.69	0.96
You talk negatively about your work (IL4).	3.53	1.12
Average	**3.46**	**0.84**

*Std. Dev. Stands for standard deviation.

Cronbach's alpha values, shown in Table 3, for the questions on workload, job strain, job satisfaction, burnout, and intention to leave are over 0.7 (Taber, 2018), resulting in 0.76, 0.74, 0.81, 0.82, and 0.76, respectively. It implies that the questions for each construct are reliable.

Table 3: The Cronbach's Alpha coefficient

Construct	Numbers of items	Cronbach's Alpha coefficient
Workload	4	0.76
Job strain	4	0.74
Job satisfaction	6	0.81
Burnout	4	0.82
Intention to leave	4	0.76

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Correlation analysis

The results of the Pearson correlation analysis between the constructs are shown in Table 4. Every connection is statistically significant, with levels at 0.01 or 0.05. The correlations reveal either positive or negative relationships among the variables. To better understand this, we looked at the correlations matching our initial hypotheses.

Table 4 The Pearson correlation

Pearson Correlation	Workload	Job strain	Job satisfaction	Burnout	Intention to leave
Workload	1				
Job strain	.576	1			
	.000**				
Job satisfaction	-.284	-.215	1		
	.001**	.014*			
Burnout	.655	.620	-.375	1	
	.000**	.000**	.000**		
Intention to leave	.524	.504	-.469	.797	1
	.000**	.000**	.000**	.000**	

**Significant at the 0.01 level; *Significant at the 0.05 level .

From Table 5, the coefficient values of the correlation between workload and burnout, job strain and burnout, job satisfaction and burnout, and burnout and intention to leave are 0.655, 0.620, -0.375, and 0.797, resulting in strong positive, strong positive, weak negative, and very strong positive correlations, respectively.

Table 5: The coefficient values of Pearson correlation

Pearson Correlation	Coefficient values	*p*-value	Results
Workload and Burnout	0.655	.000	Strong positive
Job strain and Burnout	0.620	.000	Strong positive
Job satisfaction and Burnout	-0.375	.000	Weak negative
Burnout and Intention to leave	0.797	.000	Very strong positive

In Table 6, the data and results from SPSS are presented to assess hypotheses 1, 2, and 3 through multiple linear regression analysis. The findings indicate that all variables influence burnout, as evidenced by the *p*-values. Both workload and job strain exhibit a positive impact on burnout. Conversely, job satisfaction demonstrates a negative effect on burnout. The specific coefficients can be found in Table 6.

Table 6: The prediction model of burnout (Y) by the linear function of multiple regression

	Unstandardized coefficients		Standardized coefficients		
	B	Std. Error	Beta	*t*	*p*-value

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(Constant)	.80	.50	.00	1.60	.112
Workload (x1)	.53	.10	.40	5.40	.000
Job strain (x2)	.37	.08	.35	4.77	.000
Job satisfaction (x3)	-.22	.07	-.19	-2.98	.003

(R^2 = .55)

Table 7 presents the data and results obtained from testing hypothesis 4 using multiple linear regression analysis.

Table 7: The prediction model of intention to leave (Y) by the linear function of simple regression

	Unstandardized coefficients		**Standardized coefficients**		
	B	**Std. Error**	**Beta**	***t***	***p*-value**
(Constant)	.16	.23	.00	.69	.492
Burnout	.86	.06	.80	14.98	.000

(R^2 = .64)

According to Table 8, the highest significant factor influencing burnout is workload (β = 0.53, < 0.001), followed by job strain (β = 0.37, < 0.001), and job satisfaction (β = -0.22, < 0.01), respectively. Table 6 shows that 55% (R2 = 55%) of the relationship phenomenon to explain burnout from workload, job strain, and job satisfaction.

Table 8: The results of hypotheses 1 to 3

Hypothesis	**Statistical result**	**Hypothesis conclusion**
H1: Workload Burnout	β = 0.53 (.000)***	Supported
H2: Job strain Burnout	β = 0.37 (.000)***	Supported
H3: Job satisfaction Burnout	β = - 0.22 (.003)**	Supported

**p < 0.01 and ***p < 0.001

According to Table 9, burnout is the most significant factor influencing the intention to leave (β = 0.86, < 0.001). Table 7 indicates that 64% (R2 = 64%) of the relationship phenomenon could explain the intention to leave burnout.

Table 9: The result of Hypothesis 4

Hypothesis	**Statistical result**	**Hypothesis conclusion**
H4: Burnout Intention to leave	β = 0.86 (.000)***	Supported

***p < 0.001

Based on the multiple linear analysis, equations for expressing the factors affecting burnout and intention to leave can be shown in the following:

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Burnout = 0.53 * workload + 0.37 * job strain – 0.22 * job satisfaction (R^2 = 55%)
Intention to leave = 0.86 * burnout (R^2 = 64%)

DISCUSSION

The discussion of workload and burnout.

The findings confirm the research findings of Xiaoming et al. (2014) and Van Bogaert et al. (2013), indicating that an increasing workload causes burnout. Over workload refers to demands on medical workers that exceed their capacity. When faced with an excessive workload within a constrained timeframe or prolonged duration, healthcare professionals may encounter challenges in managing their physical and psychological well-being. The relationship between burnout and workload is evident. Moreover, the findings are consistent with those of Wen et al. (2016), who found that primary hospital doctors with lower workloads displayed fewer signs of burnout, while tertiary hospital doctors with higher workloads exhibited more severe signs of burnout. Therefore, H1 was supported.

The discussion of job strain and burnout

The findings confirm the studies of Wong & Laschinger (2015) and Li et al. (2022), suggesting that emotional exhaustion caused by job strain can lead to depersonalization and a decrease in organizational commitment. Burnout, associated with decreased organizational commitment and an elevated intention to depart, exhibits a notably positive correlation with job strain. Chou et al.'s (2014) research supports this observation and suggests that increased job stress and burnout are related. Therefore, H2 was supported.

The discussion of job satisfaction and burnout

Renzi et al. (2005) and Yue et al. (2022) back up the conclusion, finding a link between job satisfaction and reduced burnout for doctors and nurses. Lower burnout levels were associated with effectively managing job satisfaction and cultivating more substantial job commitment. This observation echoes Dolan's (1987) work, highlighting a negative relationship between job satisfaction and burnout. Therefore, H3 gains support from these findings, underscoring the importance of satisfaction and commitment in mitigating burnout among healthcare professionals.

The discussion of burnout and the intention to leave

The findings echo what Yoon & Kim (2010) and Willard et al. (2019) discovered, highlighting how burnout significantly impacts turnover rates. As Bruyneel et al. (2023) pointed out, burnout affects the likelihood of leaving. They noticed a significant uptick in the risk of burnout and a readiness to leave the nursing profession, especially during the second year of the ongoing COVID-19 pandemic. It lends support to H4.

IMPLICATION

Examining responses from survey participants revealed that a significant problem arises from an increased workload, adversely affecting health. The demands of the job harm emotions and mental well-being, causing healthcare professionals to experience

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physical exhaustion and fatigue when handed additional tasks. On a positive note, cultivating positive relationships with colleagues alleviates burnout and the desire to leave. Recognizing these variables and their impact on burnout and the inclination to leave among medical personnel is crucial for effectively addressing challenges and establishing a healthcare system that is supportive and efficient, benefiting both healthcare providers and patients alike.

Businesses can boost employee effectiveness by cultivating a supportive work environment and endorsing flexible scheduling (Ngamkroeckjoti et al., 2022). Creating a well-prepared setting and allowance for adaptable work hours enhances employee performance and motivation. As a result, the positive impact on job satisfaction and productivity becomes apparent (Ngamkroeckjoti et al., 2022).

CONCLUSION

The results indicate a noticeable link between workload, job strain, and job satisfaction about burnout, along with a positive connection between experiencing burnout and the inclination to leave. Hypothesis testing has clarified that workload and job strain significantly contribute to burnout, while job satisfaction is vital in reducing burnout. Moreover, burnout plays a substantial role in fostering the intention to leave. These various independent factors can be effectively employed to predict burnout and the intention to leave among healthcare professionals in public health services in the southern region of Thailand.

LIMITATIONS AND FUTURE RESEARCH

This study's findings are based on the southern region of Thailand, but their generalizability to other regions or countries may be limited. Variations in culture, society, economy, and other characteristics in each area could impact the relevance of the study's predictions. This study may not include the mediation of burnout between factors and intention to leave; thus, it is recommended to test the mediating effect in further studies. Also, future research should consider investigating other regions in Thailand for a more comprehensive understanding.

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