



Analysis of the Influence of the Work Environment and Workload on Job Stress in Employees at Pantai Amal Community Health Center

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ABSTRACT

Limited human resources and infrastructure at Pantai Amal Community Health Center in Tarakan trigger occupational stress and task complexity during routine services, health programs, performance evaluations, and accreditation processes. This study aims to analyze the influence of work environment and workload on occupational stress among employees at Pantai Amal Community Health Center in Tarakan City. This study adopted a mixed-methods approach via a cross-sectional design, involving 30 purposively sampled employees from Pantai Amal Puskesmas. Quantitative analysis evaluated work environment and workload effects on job stress, while qualitative insights deepened comprehension of these factors' real-world impacts. Findings confirm both factors significantly influence job stress, consistent with Gibson's theory that stress emerges when demands exceed physical or psychological capacities. Practically, these results guide Puskesmas Pantai Amal management in developing effective workload policies, improving work environments, and fostering supportive conditions to reduce employee stress and enhance well-being.

Keywords: Health Center; Work Environment; Workload; Job Stress



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INTRODUCTION

In the modern organizational context, qualified and professional human resources are a critical determinant of organizational success and sustainability. Human resources function as strategic assets that drive organizational activities toward the achievement of predetermined objectives. High-quality human resources contribute significantly to enhanced competencies and improved organizational performance (Darus, 2023). Community Health Centers (Puskesmas) play a strategic role in accelerating improvements in public health status in Indonesia (Setiani & Novitasari, 2023). Organizational success is largely determined by employee quality, as organizational performance and productivity depend on the capability of human resources to achieve established goals (Gunawan & Kusniawati, 2019).

Levels of occupational stress vary across professions. According to Koinis (2015), healthcare occupations are among the most stress-prone professions. Healthcare workers are particularly vulnerable to stress and burnout because they are responsible for human lives, and any professional error may result in serious consequences for patients.

The World Health Organization (WHO, 2021) reports that occupational stress is one of the most significant challenges in contemporary working life. Data from the Health and Safety Executive (HSE) recorded 595,000 cases of work-related stress, depression, and anxiety during 2017–2018, increasing to 914,000 cases in 2021 (Fatin *et al.*, 2023). In Indonesia, the Ministry of Research and Technology (2020) reported that 55% of the population experienced stress, ranging from mild to very severe levels (Rudatiningtyas *et al.*, 2024).

Work stress represents feelings of discomfort and pressure arising from job demands that exceed an employee's capabilities. Prolonged pressure without intervention can lead to excessive occupational stress (Dewi & Puspitadewi, 2022). Physical conditions like noise and temperature often spark stress in work settings. Additional factors include uncomfortable surroundings (noise, dust, odors, heat, humidity), non-ergonomic workspaces with uncontrolled shifts or hours, traffic congestion from commuting, hazardous tasks, new technology adoption, overload, and adjusting to novel job roles (Putra *et al.*, 2024; Efawati, 2020). In Indonesia, stress among nurses ranks among the top 40 occupational stress cases, with 67% of healthcare workers including hospital directors and supervisors reporting high stress levels (Rudatiningtyas *et al.*, 2024).

Factors influencing work stress according to Gibson *et al.* (2011) include workload, work environment, and work experience. Gibson *et al.* (2011) identifies excessive time pressure where employees spend more time on tasks than scheduled—as a key stressor. Beyond time demands, the surrounding work environment plays a crucial role in promoting employee comfort and reducing stress (Wardani, 2020). According to research conducted by Suka *et al.* (2023) on work stress among healthcare workers, the majority of healthcare workers, numbering 41 respondents or 48.2%, experienced severe stress. Parulian and Triana (2020), which revealed that among healthcare workers experiencing work stress, more experienced moderate stress, namely 27 respondents or 54%. Putra and Ade (2022) shows the influence of physical work environment on work stress among employees at the Public Works Department of Makassar City. Rusdi *et al.* (2019) indicates a strong relationship between workload and stress levels among healthcare workers at the Handil Baru Community Health Center.

Although previous research has discussed the influence of work environment and workload on employee work stress, most are general in nature and conducted in other institutions such as hospitals, government agencies, or puskesmas in different regions. The research gap lies in the lack of specific studies analyzing the unique context of

Puskesmas Pantai Amal, where limited personnel not only serve patients but also handle programs and administrative document preparation. Facility limitations exacerbate conditions, such as cramped workspaces, hot atmospheres, and noise when patient numbers increase. These situations intensify during preparations for the Supervising Team for Cluster Affiliates (TPCB), performance assessments, or accreditation, which demand simultaneous readiness across various aspects. Such conditions often excessively burden employees and potentially trigger work stress.

The selected variables are based on Gibson *et al.* (2011) theory, which is relevant to the puskesmas context: workload as a multiple-task burden (services, programs, administration) exceeding capacity; work environment encompassing physical (cramped space, heat, noise) and non-physical (irregular working hours) aspects; whereas work experience is omitted due to the focus on acute conditions during peak loads, not long-term accumulation. These reasons are supported by local findings such as Rusdi *et al.* (2019) and Putra & Ade (2022), but adapted to the specific challenges of Puskesmas Pantai Amal. Model development is necessary to empirically test the simultaneous influence of workload and work environment on work stress, identify the relative contribution of each variable, and provide data-based intervention recommendations (e.g., facility improvements or task redistribution). Therefore, this research is essential to understand the impact of work environment and workload on employee stress at Puskesmas Pantai Amal.

LITERATURE REVIEW

Work stress is a condition of physical and psychological tension that arises when job demands exceed an individual's ability to cope with them. Putri *et al.*, (2023) explain that work stress creates physical and psychological disturbances due to the mismatch between employees' abilities and job demands, which can reduce productivity and well-being if not managed. In healthcare settings, work stress often stems from high workloads, limited resources, and fast-paced work dynamics.

The work environment encompasses both physical and non-physical conditions surrounding employees during task execution. Factors such as lighting, temperature, noise, space availability, as well as safety, significantly influence employee comfort and performance (Nursyamsi, 2019). Poor work environments act as physical stressors that heighten psychological and physical tension among employees, as categorized by Gibson *et al.* (2011), which prior studies confirm through the significant relationship between physical work conditions and stress levels.

Workload, in addition to the work environment, is a major factor influencing stress. It is defined as the amount of tasks or responsibilities that must be completed by an individual within a certain period of time (Rumawas *et al.*, 2021). Excessive workload often creates mental pressure because the volume of work exceeds available capacity and time (Prastiwi *et al.*, 2022). Workload can be physical, mental, or emotional, depending on task complexity, time pressure, and the level of responsibility involved in the job. The Job Demands-Resources (JD-R) model (Demerouti *et al.*, 2001) posits that high job demands without sufficient resources lead to exhaustion, emotional fatigue, and occupational stress. Prior research consistently demonstrates a significant relationship between workload and work stress, aligning with observations at facilities like Puskesmas Pantai Amal where multitasking amplifies these effects.

In primary healthcare settings like Puskesmas, work stress becomes more prevalent as employees often shoulder multiple roles, from direct patient care and health program implementation to administrative documentation. Limited human resources

amplify job demands and can trigger stress, as Gibson explains that it arises when work requirements exceed an individual's physical and psychological capacity. Physical conditions at Puskesmas such as hot temperatures, noise, and cramped workspaces further intensify occupational stress by reducing employee comfort and focus. Herzberg's Two Factor Theory suggests that poor hygiene factors, such as an inadequate work environment, contribute to dissatisfaction and stress, while excessive workloads disrupt psychological well-being and work motivation.

Research on the analysis of work environment and workload influences on occupational stress among healthcare workers has been extensively conducted, particularly in hospitals and urban community health centers. However, most previous studies focused primarily on direct patient care aspects, while the reality at Pantai Amal Community Health Center indicates that employee workloads stem not only from service duties but also from additional multifaceted roles, such as health program implementation and preparation of various administrative documents. Limited human resources compel individual staff to bear layered responsibilities, which intensify during specific periods for instance, TPCB preparations, performance evaluations, or puskesmas accreditation and compact rooms constrain work comfort, especially during patient influxes. The work atmosphere often feels hot and noisy, thereby adding psychological and physical pressure on employees in performing their tasks. Another distinction in this study is the mixed methods approach, not previously applied in prior research. Qualitative analysis via interviews strengthens findings from quantitative analysis, where data collection employed questionnaires.

The novelty of this research lies in its focus on Pantai Amal Community Health Center, which features unique conditions marked by limited human resources, forcing some employees to juggle multiple roles simultaneously from direct patient services and program implementation to administrative documentation. These circumstances heighten the potential for occupational stress, as job demands exceed individuals' coping abilities, as explained in Gibson's work stress theory that stress emerges when a person confronts work pressures surpassing their physical or psychological capacities. Beyond heavy workloads, the work environment at Pantai Amal Puskesmas also serves as a distinguishing factor. Relatively cramped rooms with limited ventilation and air conditioning often create hot and noisy work atmospheres, especially during patient surges. This generates additional strain, affecting employee comfort and concentration. Methodologically, this study introduces novelty by employing a mixed-methods approach, combining quantitative questionnaires to measure stress levels with qualitative interviews to explore staff's real-field experiences. This integration yields a more comprehensive and in-depth depiction of how workload and work environment induce stress, from numerical data to personal narratives.

Theoretically, this research reinforces and extends Gibson's theory application in healthcare settings, particularly at community health centers with distinct workload and environmental traits differing from hospitals. Practically, the findings are expected to inform policies for Tarakan City Health Office and management on workload regulation, staff augmentation, and physical workspace improvements, thereby reducing employee stress while maintaining optimal service performance.

H1: The work environment has a positive effect on job stress.

Poor physical work environments, such as cramped spaces, heat, noise, and inadequate lighting, create physical and psychological discomfort that triggers occupational stress among healthcare workers (Salsabil TZ *et al.*, 2024). Suboptimal physical conditions

heighten tension as employees must continuously adapt to environmental distractors, accelerating mental fatigue (Jundillah A, 2024).

H2: Workload has a positive effect on job stress.

Excessive workload exceeding employees' capacity within limited time creates time pressure and perceptions of inadequacy that trigger stress (Khotimah K, 2024). When task volume (services, administration, programs) is imbalanced with human resources, employees experience chronic frustration and burnout (Handayani Y *et al.*, 2022).

H3: The work environment and workload simultaneously affect job stress.

Poor work environments (cramped spaces, heat, noise) increase the perception of effective workload because employees require extra time and energy to compensate for uncomfortable conditions, thereby amplifying the ultimate effect on work stress (Mahayani KAM, 2022).

RESEARCH METHOD

This study employed a mixed-methods approach integrating quantitative and qualitative data to obtain a comprehensive understanding of the research problem (Yaniawati *et al.*, 2024). This research employs mixed-methods due to the complex nature of work stress in Puskesmas settings. Questionnaires measure the strength of influences (H1-H3), while interviews reveal underlying processes. The inclusion criteria for participants are permanent employees of Puskesmas Pantai Amal in Tarakan City who worked during the period of May-December 2023 and are willing to complete the quantitative questionnaire as well as participate in qualitative interviews. This study employed a mixed-methods approach, integrating quantitative and qualitative data for a comprehensive understanding of the research problem. Quantitative data were collected via structured questionnaires administered to the study sample, while qualitative data were gathered through in-depth interviews with the same participants to explore their perceptions and experiences. Using the same sample for both methods enabled data triangulation and enhanced the validity of the findings. A sequential explanatory design was applied, beginning with quantitative data collection through questionnaires, followed by qualitative interviews to enrich data interpretation (Yaniawati *et al.*, 2019).

The study population consisted of all 32 employees at Pantai Amal Community Health Center. A total of 30 respondents were selected using purposive sampling based on the following inclusion criteria: employees actively working during May–December 2023 and willing to participate in interviews.

RESEARCH RESULTS

Validity Test

Table 1. Results of the Job Stress Questionnaire Validity Test

Calculated R	r-Table	Criteria
0,516	0,3610	Valid
0,440	0,3610	Valid
0,393	0,3610	Valid
0,610	0,3610	Valid
0,549	0,3610	Valid
0,672	0,3610	Valid

Calculated R	r-Table	Criteria
0,658	0,3610	Valid
0,399	0,3610	Valid
0,418	0,3610	Valid
0,556	0,3610	Valid
0,711	0,3610	Valid
0,378	0,3610	Valid
0,736	0,3610	Valid
0,551	0,3610	Valid
0,418	0,3610	Valid
0,522	0,3610	Valid
0,662	0,3610	Valid
0,776	0,3610	Valid
0,369	0,3610	Valid
0,474	0,3610	Valid
0,377	0,3610	Valid
0,525	0,3610	Valid
0,680	0,3610	Valid
0,708	0,3610	Valid
0,625	0,3610	Valid
0,796	0,3610	Valid
0,671	0,3610	Valid
0,771	0,3610	Valid
0,711	0,3610	Valid
0,441	0,3610	Valid

Source: Primary Data (2025)

From Table 1 above, it can be observed that all questionnaire items for the job stress variable meet the validity criteria, thus declared valid.

Table 2. Results of the Work Environment Questionnaire Validity Test

Calculated R	r-Table	Criteria
0,483	0,3610	Valid
0,446	0,3610	Valid
0,516	0,3610	Valid
0,693	0,3610	Valid
0,684	0,3610	Valid
0,697	0,3610	Valid
0,598	0,3610	Valid
0,747	0,3610	Valid
0,863	0,3610	Valid
0,801	0,3610	Valid
0,842	0,3610	Valid
0,619	0,3610	Valid
0,710	0,3610	Valid
0,747	0,3610	Valid
0,791	0,3610	Valid
0,421	0,3610	Valid
0,499	0,3610	Valid
0,520	0,3610	Valid

Calculated R	r-Table	Criteria
0,730	0,3610	Valid
0,407	0,3610	Valid
0,623	0,3610	Valid
0,535	0,3610	Valid
0,809	0,3610	Valid
0,730	0,3610	Valid
0,628	0,3610	Valid
0,513	0,3610	Valid
0,798	0,3610	Valid
0,375	0,3610	Valid
0,831	0,3610	Valid
0,868	0,3610	Valid

Source: Primary Data (2025)

From Table 2 above, it can be observed that all questionnaire items for the work environment variable meet the validity criteria, thus declared valid.

Table 3. Results of the Workload Questionnaire Validity Test

Calculated R	r-Table	Criteria
0,464	0,3610	Valid
0,781	0,3610	Valid
0,692	0,3610	Valid
0,505	0,3610	Valid
0,581	0,3610	Valid
0,619	0,3610	Valid
0,542	0,3610	Valid
0,394	0,3610	Valid
0,661	0,3610	Valid
0,600	0,3610	Valid
0,508	0,3610	Valid
0,657	0,3610	Valid
0,619	0,3610	Valid
0,547	0,3610	Valid
0,648	0,3610	Valid
0,692	0,3610	Valid
0,758	0,3610	Valid
0,550	0,3610	Valid
0,825	0,3610	Valid
0,494	0,3610	Valid
0,423	0,3610	Valid
0,395	0,3610	Valid
0,453	0,3610	Valid
0,719	0,3610	Valid
0,530	0,3610	Valid
0,700	0,3610	Valid
0,458	0,3610	Valid
0,587	0,3610	Valid
0,386	0,3610	Valid
0,747	0,3610	Valid

Source: Primary Data (2025)

From Table 3 above, it can be observed that all questionnaire items for the workload variable meet the validity criteria, thus declared valid.

Reliability Test

Table 4. Results of the Research Questionnaire Reliability Test

Variable	Cronbach's Alpha Value	r-Table	Criteria
Job Stress	0,930	0,3610	Reliable
Work Environment	0,952	0,3610	Reliable
Workload	0,916	0,3610	Reliable

Source: Primary Data (2025)

Based on table 4, all variables in this study have Cronbach's Alpha values > r-table, indicating that the instruments for all variables are declared reliable.

Respondent Demographics

Table 5. Respondent Gender, Range of Age, Education, and Work Experience

Respondent Demographics	Categories	Numbers	In %
Gender	Male	9	30
	Female	21	70
Range of age	21 – 30 years old	9	30
	31 – 40 years old	10	33.3
	41-50 years old	11	36.7
Education	Senior High School	3	10
	Vocational High School	1	3.3
	Diploma III	11	36.7
	Diploma IV	1	3.3
	Bachelor's Degree	10	33.3
	Bachelor's Degree with Professional Program	4	13.3
Length of Service	< 2 years	2	6.7
	2-5 year	14	46.7
	6-10 years	2	6.7
	11-15 years	9	30
	>15 years	3	10

Source: Primary Data (2025)

Based on table 5, the demographic characteristics of the respondents indicate that the majority were female, accounting for 21 respondents (70%), while male respondents numbered 9 (30%). In terms of age distribution, the largest proportion of respondents was in the 41–50 years age group, comprising 11 respondents (36.7%), followed by those aged 31–40 years with 10 respondents (33.3%) and 21–30 years with 9 respondents (30%).

Regarding educational background, most respondents held a Diploma III qualification, totaling 11 respondents (36.7%), followed by those with a Bachelor's degree, amounting to 10 respondents (33.3%). Respondents with a Bachelor's degree with a professional program accounted for 4 respondents (13.3%), while those with a senior high school education numbered 3 respondents (10%). Smaller proportions were observed among respondents with vocational high school and Diploma IV education, each consisting of 1 respondent (3.3%).

In terms of length of service, nearly half of the respondents had worked for 2–5 years, totaling 14 respondents (46.7%). This was followed by respondents with 6–10 years of service, numbering 2 respondents (6.7%), and those with 11–15 years, also totaling 9 respondents (30%). Respondents with more than 15 years of service accounted for 3 respondents (10%), while those with less than 2 years of service represented the smallest group, with 2 respondents (6.7%).

Heteroscedasticity Test Results

Table 6. Heteroscedasticity Test Results

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Contestant)	4.924	12.627		.390	.700
Work Environment	-.022	.137	-.035	-.161	.873
Workload	.017	.060	.063	.286	.777

Source: Primary Data (2025)

Table 6 shows that the significance values of the work environment and workload variables exceed 0.05, allowing the conclusion that no heteroskedasticity occurs in this research.

Multicollinearity Test Results

Table 7. Multicollinearity Test Results

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Contestant)	54.004	17.945		3.009	.006		
Work Environment	-.056	.194	-.035	-.287	.776	.766	1.305
Workload	.582	.085	.844	6.832	.000	.766	1.305

Source: Primary Data (2025)

Table 7 shows that the tolerance value for each variable is greater than 0.10. Meanwhile, the VIF value for all variables is less than 10. Therefore, based on the multicollinearity test decision criteria, it can be concluded that there are no symptoms of multicollinearity among the independent variables, as all tolerance values are greater than 0.10 and all VIF values are less than 10

Multiple Linear Regression Results

Table 8. Multiple Linear Regression Results

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
(Contestant)	126.953	26.977		4.706	.000
Work Environment	.691	.272	.310	2.543	.017
Workload	.501	.077	.797	6.543	.000

Source: Primary Data (2025)

The results of multiple linear regression analysis in table 8 yield coefficients for the work environment variable = 0.691, and the independent workload variable = 0.501, with a constant value = 126.953. Thus, the obtained regression equation model is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

$$\text{Job stress} = 126.953 + 0,691 X1 + 0,501 X2 + \varepsilon$$

Based on the regression equation above, the interpretation is as follows:

- a. Constant (α)
 The constant value is 126.953, which means that if the work environment and workload variables are considered zero, the job stress value is 126.953.
- b. Regression Coefficient for Work Environment Variable (β_1)
 The regression coefficient value for the work environment variable (β_1) is 0.691, indicating that every addition of 1 unit in X1 will increase Y by 0.691.
- c. Regression Coefficient for Workload Variable (β_2)
 The regression coefficient for the workload variable (β_2) is 0.501, explaining that every addition of 1 unit in X2 will increase Y by 0.501.

Partial Regression Test Results (t-Test)

Table 9. Partial Regression Test Results (t-Test)

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	126.953	26.977		4.706	.000
Work Environment	.691	.272	.310	2.543	.017
Workload	.501	.077	.797	6.543	.000

Source: Primary Data (2025)

- a. The work environment variable shows a significance value of $0.017 < 0.05$. The regression coefficient of 0.691 indicates a positive direction, so the work environment variable has a significant positive effect on job stress, thus H1 is accepted.
- b. The workload variable (X2) shows a significance value of $0.00 < 0.05$. The regression coefficient of 0.501 indicates a positive direction, so the workload variable has a significant positive effect on job stress, thus H2 is accepted.

Simultaneous Regression Test Results (F-Test)

Table 10. Simultaneous Regression Test Results (F-Test)

ANOVA					
Model	Sum of Squares		Df	Mean Square	F
Regression	1733.127	2	866.564	21.993	.000 ^b
Residual	1063.839	27	39.401		
Total	2796.967	29			

Source: Primary Data (2025)

Table 10 shows that the significance value of $0.000 < 0.05$, so it can be concluded that the work environment and workload variables simultaneously influence job stress.

Coefficient of Determination Test Results (R²)

Table 11. Coefficient of Determination Test Results (R²)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787 ^a	.620	.591	6.277

a. Predictors: (Constant), Beban, Lingkungan
 Source: Primary Data (2025)

Table 10 shows that the coefficient of determination value in this study is 0.591 or 59.10%, indicating that the ability of the work environment variable (X1) and the workload variable (X2) in influencing job stress is 59.10%, while the remainder is influenced by other variables not included in this study.

DISCUSSION

The Effect of Work Environment on Job Stress among Employees of Puskesmas Pantai Amal

According to Gibson's theory (2011), an uncondusive work environment—such as high noise levels, poor lighting, and extreme temperatures—serves as a key stressor that can trigger job stress. Beyond physical factors, interpersonal relationships in the workplace also play a crucial role. Conflicts with colleagues or superiors, ineffective communication, and lack of social support can exacerbate job stress

One factor that can influence the level of job stress among employees is the work environment. A poor work environment can affect employees in carrying out their duties, resulting in suboptimal performance. A healthy work environment for nurses is a safe, empowering, and satisfying workplace where all health staff work diligently for optimal health and safety. Another stressor factor often experienced by employees is being in an uncondusive and poor work environment, as the work environment greatly influences performance and productivity. If employees are in an unsupportive environment—for example, a work system and office management that do not suit the employee's personality—it will create obstacles in building relationships between superiors and colleagues (Junaidah & Wardhani, 2023).

The work environment has a significant and complex influence on job stress. From a physical aspect, the work environment can act as a source of stressors contributing to increased stress levels among employees. These findings align with research by Zulmaidarleni *et al.* (2019), which showed a sig value of 0.015 below the 0.05 error level, leading to the decision to reject H0 and accept Ha, concluding that the physical work environment significantly affects job stress among employees of the Padang Timur District Office. Similarly, Putra AD (2022) found that the physical work environment positively and significantly influences job stress among employees at the Public Works Department of Makassar City.

However, in this study, although the work environment proves to have a significant effect, its level of influence is lower compared to workload. This condition indicates the presence of adaptation mechanisms among employees to a less-than-ideal work environment. According to Gibson *et al.*'s theory (2011), stress arises when an individual faces environmental demands exceeding their adaptive capacity. In the context of Puskesmas Pantai Amal, most employees have worked there for a considerable time and are accustomed to facing uncomfortable working conditions, thus lowering their perception of stress due to physical factors.

The Effect of Workload on Job Stress among Employees of Puskesmas Pantai Amal

According to Gibson *et al.* (2011), workload represents one of the key sources of job stress. Excessive workload can be quantitative—excessive volume of work in limited time—or qualitative—job demands exceeding individual capabilities and skills. Even minimal or monotonous workload can induce stress by reducing work motivation (Chaniago *et al.*, 2025)

Each healthcare worker bears varying workloads. When the body receives workload, it interprets it as an obstacle (stressor) in the limbic system. This system is a part of the brain responsible for forming behaviors or emotions such as anger and fear. As a result, the hypothalamus activates, and the autonomic nervous system responds. This system sends biochemical commands to the body systems, causing reactions including respiration, cardiovascular system, muscle tension, and fine motor activity. To counter the stressor response, the individual's body reacts by expending more energy. If the energy possessed is sufficient, the individual can endure and adapt, reducing stressor symptoms and returning the body to normal. However, if the individual's energy is insufficient, resilience weakens, leading to stress. Therefore, suboptimal or excessive workload not aligned with individual capacity easily triggers job stress (Tonapa *et al.*, 2022).

Job stress can arise when assigned workload does not match employee capabilities or fails to provide tasks suited to their expertise. Consequently, employees require extra time to meet task completion targets, impacting work productivity (Safitri, 2020). These findings align with research by Setiani and Novitasari (2023), which states a positive effect of workload on job stress among employees at Puskesmas Kasihan 1, Bantul Regency, and Ardiana P (2024), which shows significant test results indicating a relationship between workload and job stress among community health workers at Puskesmas in Pekalongan City. High workload at Puskesmas Pantai Amal stems from limited staff numbers despite extensive responsibilities. Employees not only serve patients but also implement health programs, prepare administrative reports, and handle activities such as TPCB, performance assessments, and accreditation. This creates substantial physical and mental pressure, potentially leading to job stress.

According to Gibson *et al.* (2011), job stress occurs when job demands exceed an individual's ability to cope with them. These findings indicate that workload involves not only the volume of tasks but also their alignment with employees' capabilities. Practically, this provides input for Puskesmas management to regulate task distribution, add staff during peak activities, and reduce excessive administrative burdens.

The Effect of Work Environment and Workload on Job Stress among Employees of Puskesmas Pantai Amal

The work environment and workload represent two interrelated key aspects with substantial influence on employee stress levels. An unsupportive work environment can exacerbate the impact of high workload, while excessive workload heightens vulnerability to the negative effects of the work environment. Research by Mukhlis (2024) confirms that job stress serves as a critical mediator between work environment and workers' quality of life. Meanwhile, Herachwati (2024) adds that the interaction between workload and work environment significantly contributes to burnout levels, particularly among healthcare workers facing intense pressures.

The work environment and workload exhibit interactive and complementary effects on job stress. High workload tends to increase stress, but its impact can be mitigated if workers operate in a supportive environment. Conversely, a poor work

environment worsens stress conditions even when workload remains moderate. Thus, organizations must manage both factors simultaneously to reduce job stress levels. These findings align with research by Y.P. Firdaus (2022), which states that the F-test from ANOVA yielded a probability level (Sig) of 0.000. Since the significance level of 0.05 shows $0.000 \leq 0.05$, the decision rejects H_0 . This indicates a positive effect of both workload and work environment on job stress at Cibabat General Hospital in Cimahi. Similarly, Titi Amelia (2023) confirms a combined influence of both tested variables—workload and work environment—on job stress among employees at the Investment and One-Stop Integrated Services Office in Solok City. The research findings indicate that workload exerts a stronger influence on job stress compared to work environment. This aligns with Gibson's job stress theory, which states that stress emerges when job demands exceed an individual's coping capacity. At Puskesmas Pantai Amal, employees face high job demands due to limited staffing and extensive responsibilities. Each employee not only serves patients but also implements health programs and prepares administrative reports. This condition increases physical and mental pressure, ultimately triggering job stress.

Meanwhile, the influence of work environment on stress exists but is not as strong as workload. This may occur because employees have become accustomed to less-than-ideal working conditions, such as hot temperatures, noise, and cramped spaces. According to Robbins and Judge (2019), an individual's stress level can be influenced by their adaptation ability and coping strategies. Employees who can adjust to their environment tend to experience lower stress. This difference in influence also reflects the unique characteristics of Puskesmas compared to hospitals. In hospitals, work division proves more structured and supported by adequate facilities and personnel (Ningsih, L., & Rina, 2021). Conversely, at Puskesmas Pantai Amal, employees must handle multiple tasks simultaneously, especially during peak periods such as TPCB, performance assessments, and accreditation. The accumulated workload creates time pressure, fatigue, and excessive responsibility, potentially increasing stress.

CONCLUSIONS

This study was conducted to examine the effect of work environment and workload on job stress among employees at Pantai Amal Public Health Center. Based on the analysis that has been carried out, the following conclusions are presented:

- a. The work environment significantly influences job stress. Unconducive conditions exacerbate workload, disrupt concentration, cause physical discomfort, and increase stress risk. Theoretical Contribution: Expands human resource management understanding of physical work environment's role in public service stress, particularly primary healthcare facilities like Puskesmas. Practical Implications: Puskesmas management should improve physical facilities (ventilation, cooling, maintenance), optimize workspace layout for better air circulation/movement, reduce noise via ergonomic design, and establish environmental monitoring policies for rapid response to temperature, noise, and air quality complaints.
- b. Workload significantly influences job stress through unrealistic timelines, excessive volume, assignments beyond expertise, overtime needs, and perceived work standard unfairness. Theoretical Contribution: Strengthens human resource management understanding of workload-stress relationship in public service, adding empirical evidence that workload encompasses psychological and fairness perceptions beyond duration/quantity—covering physical, mental, and emotional demands. Practical Implications: Puskesmas management should align task distribution with employee

- competence/capacity, add support staff or rotate duties to prevent fatigue, implement workload monitoring for early overload detection, and provide psychological support/recognition to boost resilience against work pressure.
- c. Work environment and workload significantly influence job stress. An unsupportive environment exacerbates high workload impact, while excessive workload increases vulnerability to negative environmental effects.
 - d. The novelty of this study lies in its focus on Puskesmas Pantai Amal, featuring unique conditions of limited human resources where employees multitask across direct patient care, health program implementation, and administrative documentation. This amplifies job stress potential as work demands exceed individual capacity, aligning with Gibson's theory that stress arises when job pressures surpass physical and psychological limits. Beyond high workload, Puskesmas Pantai Amal's work environment serves as a distinguishing factor—cramped rooms with limited ventilation and cooling create hot, noisy conditions during patient surges, adding pressure that affects employee comfort and focus. Methodologically, this research innovates through a mixed-methods approach, combining quantitative questionnaires measuring job stress levels with qualitative interviews capturing real field experiences, providing comprehensive insights from both statistics and personal narratives.
 - e. This study has limitations in its small sample size of only 30 respondents, comprising all employees at Puskesmas Pantai Amal. This makes the results difficult to generalize as they only describe conditions at one work unit. However, the sample size remains sufficient to assess job stress phenomena at this puskesmas, especially since the study is supported by qualitative data reinforcing the quantitative findings.
 - f. Recommendations for future research, future studies should expand sample sizes and conduct comparisons across different puskesmas or regions. Additionally, subsequent research can incorporate moderator or mediator variables to gain deeper insights into the relationships between work environment, workload, and job stress.

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