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ORGANIZATIONAL SUPPORT AND HEALTH INFRASTRUCTURE IMPACT ON HEALTHCARE STAFF RETENTION IN HINTERLAND COMMUNITIES

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Abstract

Healthcare workforce shortages in hinterland areas represent a critical global health challenge, particularly affecting remote communities that struggle to attract and retain qualified healthcare professionals. This cross-sectional study analyzed the influence of organizational support and health infrastructure on healthcare staff retention among 182 healthcare workers in hinterland communities of Riau Islands, Indonesia, using Structural Equation Modeling with Partial Least Squares (SEM-PLS). The measurement model demonstrated excellent reliability and validity with Cronbach's Alpha values ranging from 0.924-0.947 and Average Variance Extracted above 0.5 for all constructs. Results revealed that health infrastructure had the strongest direct positive effect on staff retention, followed by organizational support, while health infrastructure also significantly influenced organizational support, creating a mediation pathway. The indirect effect analysis confirmed that organizational support partially mediates the relationship between health infrastructure and staff retention, with all hypothesized relationships being statistically significant and the model explaining substantial variance in retention outcomes. These findings suggest that healthcare organizations in hinterland areas should adopt integrated strategies that simultaneously invest in infrastructure improvements and strengthen organizational support systems to achieve optimal staff retention outcomes in challenging remote environments.

Keywords: ***Healthcare Staff Retention, Organizational Support, Health Infrastructure, Hinterland Communities, SEM-PLS, Mediation Analysis***

INTRODUCTION

The global healthcare landscape is increasingly challenged by persistent workforce shortages, particularly in geographically isolated regions where healthcare delivery remains suboptimal. Previous research has demonstrated that hinterland areas consistently face the most severe staffing challenges, often leaving vulnerable populations without adequate medical care. Field observations at remote healthcare facilities have revealed complex interactions of factors that influence healthcare workers' decisions to remain in or leave these challenging environments. Current evidence indicates that approximately 51–67% of rural populations lack adequate access to essential health services, effectively leaving 2 billion people underserved(Lopez-Abuin, 2010). This statistic indicates a deeper systemic problem in global healthcare workforce distribution, particularly in remote and hinterland areas. Empirical studies through interviews with healthcare professionals working in isolated regions have identified two dominant themes that significantly influence retention decisions: the level of organizational support provided to staff and the adequacy of health facility infrastructure. The challenge of attracting and retaining sufficient healthcare workers to provide adequate services for rural and remote area residents has gained unprecedented global significance (Buykx et al., 2010). Nevertheless, understanding of the specific mechanisms driving these retention patterns remains fragmented and requires deeper investigation.

Collaborative research with healthcare administrators at various hinterland facilities demonstrates that organizational support manifests across multiple dimensions, from administrative support during critical incidents to structured professional development opportunities. Established organizational literature indicates that retaining well-motivated staff is vital to organizational success (Samuel & Chipunza, 2009). The unique contextual factors present in hinterland settings require more nuanced investigation to understand the true dynamics of retention. Facility infrastructure plays a crucial role in shaping healthcare workers' experiences in remote areas. Field documentation shows that healthcare workers serving rural and remote communities must provide services beyond

the scope of their formal training due to the absence of other qualified personnel (Organization, 2020). This reality, combined with inadequate equipment and unreliable infrastructure, creates a challenging work environment that affects healthcare worker retention decisions. The theoretical framework of this research is built upon established organizational theories, particularly Herzberg's motivation theory which is relevant in healthcare settings. Herzberg's two-factor theory demonstrates that job satisfaction stems from two distinct factors: motivators and hygiene factors(Herzberg et al., 1959). Previous research in urban healthcare settings has validated Herzberg's proposition that certain job content factors provide satisfying experiences for employees, including achievement, recognition, the work itself, responsibility, advancement, and growth (Al Maqbali, 2015). However, applying this framework to hinterland healthcare environments requires further empirical validation. Contemporary literature review confirms that healthcare worker shortages in rural and remote areas remain a growing concern in both developed and developing countries (Putri et al., 2020). Despite numerous studies examining individual retention factors, there exists a significant research gap regarding the combined influence of organizational support and facility conditions specifically within hinterland contexts. The documented deficiency in trained and motivated healthcare workers represents a critical health system failure (Dwivedi et al., 2015) that demands immediate attention from researchers and policymakers.

PROBLEM ANALYSIS

Healthcare workforce shortages in geographically isolated regions represent one of the most persistent and challenging issues facing global health systems today, with hinterland communities bearing the disproportionate burden of inadequate medical coverage and suboptimal health service delivery.

1. Healthcare access disparities reveal a critical condition where the majority of rural populations lack access to essential health services, impacting billions of people globally who remain inadequately served. Hinterland areas consistently experience the most severe healthcare workforce shortages, creating systematic failures in global healthcare workforce distribution and leaving vulnerable populations without adequate medical care.
2. Healthcare staff retention decisions in hinterland areas are influenced by two dominant themes: organizational support and adequacy of health facility infrastructure. Healthcare workers in remote areas are forced to work beyond their formal training scope under challenging working conditions that include inadequate equipment, unreliable infrastructure, and excessive workloads due to the absence of other qualified personnel.
3. There exists a significant research gap regarding the combined influence of organizational support and facility conditions within specific hinterland contexts. The fragmented understanding of retention mechanisms represents a critical health system failure that requires immediate attention from researchers and policymakers to develop evidence-based solutions for improving healthcare workforce retention in geographically isolated communities.

Given the critical healthcare workforce challenges identified in hinterland communities and the complex interplay of organizational and infrastructural factors affecting staff retention decisions, this research seeks to systematically examine the specific influences that determine healthcare workers' commitment to serving in geographically isolated areas.

1. How does organizational support directly influence healthcare staff retention in hinterland areas?
2. How does health infrastructure directly influence healthcare staff retention in hinterland areas?
3. How does health infrastructure influence organizational support in hinterland healthcare settings?
4. How does health infrastructure indirectly influence healthcare staff retention through organizational support as a mediating variable?

LITERATURE REVIEW

1. Healthcare Staff Retention in Remote Areas

Healthcare staff retention in remote and rural areas has been extensively documented as a global challenge affecting both developed and developing nations. Research conducted in Maluku Province, Indonesia, demonstrates that many factors contribute to engagement in rural and remote medical practice, with specific attention needed for recruiting doctors with rural backgrounds and ongoing support through attractive opportunities to build sustainable rural (Noya et al., 2021). This finding aligns with international evidence suggesting that retention strategies must be multifaceted and context-specific. Studies indicate that Indonesia faces significant challenges with only 3.8 physicians per 10,000 population nationally, while remote provinces like Maluku have merely 1.5 general physicians

per 10,000 population (Tan, 2021). The geographic maldistribution is further exacerbated by factors including communication difficulties, lack of basic and social facilities, low salary, inadequate compensation, high living costs, lack of security, and unclear career options that contribute to very short-term service periods among healthcare workers willing to serve in remote areas (Putri et al., 2020).

2. Organizational Support and Healthcare Workforce

Organizational support theory, rooted in social exchange theory, posits that employees form beliefs about the extent to which their organization values their contributions and cares about their well-being. In healthcare settings, particularly in challenging environments, organizational support becomes a critical determinant of job satisfaction and retention intentions. Research during the COVID-19 pandemic revealed that integration of additional organizational support, such as mandatory leave time and effective communication of changing information and revised protocols, provides security during crisis and uncertainty (Nurlinawati et al., 2023). Studies from Maluku Province found that regulatory intervention, financial incentives, and personal and professional support strategies were implemented at the national level, though with limited documentation at district and provincial levels regarding comprehensive strategies to improve recruitment and retention. The research emphasizes that enhanced scope of practice and opportunities for physicians to achieve more through regulatory support from the Ministry of Health and Indonesian Council of Medicine represent important organizational interventions.

3. Health Infrastructure and Staff Retention

Infrastructure adequacy significantly influences healthcare workers' decisions to remain in remote postings. Current evidence shows that distribution of healthcare workers remains uneven, especially in eastern Indonesia, with minimal support from health. The infrastructure challenges are multidimensional, encompassing physical facilities, technological capabilities, and logistical support systems. Research using realist evaluation approach found that specialist doctors consider geographical, demographic, and socioeconomic factors when determining comfort levels at placement locations, with geographical factors including ease of access to provincial capitals and areas of origin being critical considerations (Nurlinawati et al., 2023). Healthcare workers' experiences during COVID-19 revealed that challenges varied by role, with clinical roles facing issues in maintaining community trust and patient referral problems, while non-clinical roles encountered sub-optimal laboratory capacity, logistics issues, and lack of training.

4. Theoretical Framework: Herzberg's Two-Factor Theory

Herzberg's motivation-hygiene theory provides a robust theoretical foundation for understanding healthcare staff retention in challenging environments. The theory distinguishes between motivators (achievement, recognition, work itself, responsibility, advancement) and hygiene factors (company policy, supervision, working conditions, interpersonal relations, salary). In healthcare settings, factors associated with working in remote areas include educational background, with rural background students more likely to practice in remote areas, and regulatory factors such as government employment opportunities

METHOD

1. Research Design

This study employs a quantitative approach with a cross-sectional survey design to analyze the influence of organizational support and health infrastructure on healthcare staff retention in the hinterland areas of Riau Islands. This approach was selected because it is appropriate for testing causal relationships between variables and developing predictive models using Structural Equation Modeling - Partial Least Square (SEM-PLS), which enables simultaneous analysis of multiple constructs within an integrated model.

2. Population and Sample

The target population of this research comprises all healthcare workers serving in healthcare facilities in the hinterland areas of Riau Islands with a minimum service period of 6 months, including doctors, nurses, midwives, and other healthcare professionals. The sampling technique utilizes stratified random sampling based on profession type, geographical location of remote islands, and type of healthcare facility, with a sample size of 182 respondents calculated using G*Power analysis with an effect size of 0.15 (medium), statistical power of 80%, and significance level $\alpha = 0.05$, including anticipation of a 20% non-response rate.

3. Research Variables

The independent variables consist of X1 (Organizational Support) encompassing 7 dimensions including management support, organizational policies, career development, welfare programs, communication systems, recognition, and work-life balance, as well as X2 (Health Infrastructure) with 7 dimensions including physical facilities, medical equipment, information technology, utility infrastructure, logistics systems, referral transportation, and working environment conditions. The dependent variable Y (Healthcare Staff Retention) is measured through 6 indicators encompassing intention to stay, job satisfaction, organizational commitment, work engagement, career satisfaction, and actual retention behavior.

4. **Research Instrument**

The research instrument employs a structured questionnaire with a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The questionnaire will undergo content validity validation by 5 expert judgments from healthcare management specialists, pilot testing with 30 respondents, and reliability testing with a target Cronbach's Alpha ≥ 0.7 to ensure internal consistency of the instrument.

5. **Data Analysis with Smart PLS**

Data analysis uses Smart PLS 4.0 with the justification that this software is suitable for relatively small sample sizes (182 respondents), predictive and explanatory models, does not require multivariate normality assumptions, and is capable of handling complex models with multiple constructs. The analysis stages include outer model evaluation (individual item reliability, internal consistency, convergent validity, discriminant validity) and inner model evaluation (collinearity assessment, path coefficients, R^2, effect sizes, predictive relevance), with bootstrapping procedures using 5,000 subsamples and a 95% confidence level for significance testing.

RESULTS AND DISCUSSION

1. Respondent Characteristics

Table 1. Demographic Characteristics of Respondents

Characteristics	Category	Frequency (n)	Percentage (%)
Gender	Male	58	31.9
	Female	124	68.1
Age	22-35 years	105	57.7
	36-45 years	51	28.0
	>45 years	26	14.3
Profession	Doctor	34	18.7
	Nurse	77	42.3
	Midwife	52	28.6
	Other Healthcare Staff	19	10.4
Education Level	Diploma	68	37.4
	Bachelor's Degree	62	34.1
	Professional/Master's	52	28.5
Years of Service	1-5 years	96	52.7
	6-10 years	42	23.1
	>10 years	44	24.2
Employment Status	Civil Servant	89	48.9
	Contract/Temporary	81	44.5
	Honorary	12	6.6

The demographic profile of 182 healthcare workers in the hinterland areas of Riau Islands reveals a predominantly female workforce (68.1%) with the majority aged between 22-35 years (57.7%), indicating a relatively young healthcare workforce. Nurses constitute the largest professional group (42.3%), followed by midwives (28.6%) and doctors (18.7%), reflecting the typical staffing pattern in primary healthcare facilities. The educational background is fairly distributed across diploma (37.4%), bachelor's degree (34.1%), and professional/master's levels (28.5%), while work experience is concentrated in the early career stage with 52.7% having 1-5 years of service. Employment status shows a balanced distribution between civil servants (48.9%) and contract/temporary workers (44.5%), with only a small proportion of honorary staff (6.6%), suggesting relatively stable employment arrangements despite the remote location challenges.

2. Outer Model

a. Outer Loading

Outer loading evaluation represents a critical stage in SEM-PLS analysis to test the convergent validity of indicators against their latent constructs. This testing is conducted through two iterations to ensure stability and consistency of the measurement model, using a minimum threshold of 0.7 for outer loading factors.

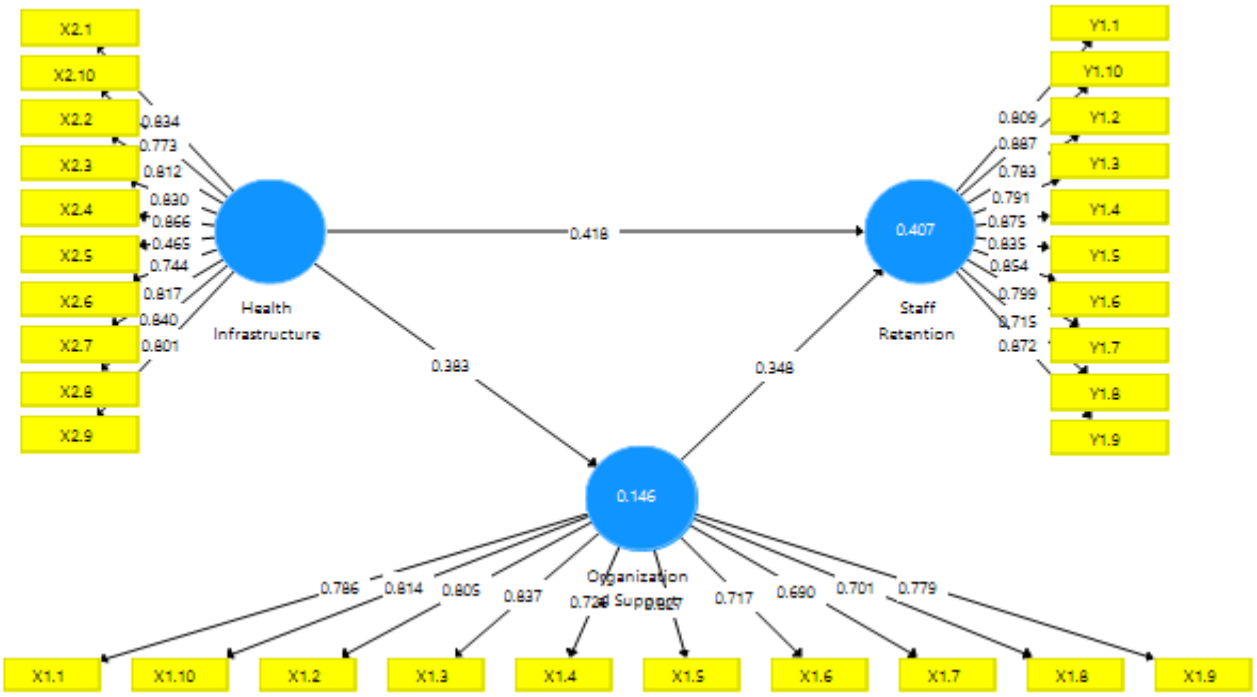

Figure 1. Outter Loading 1

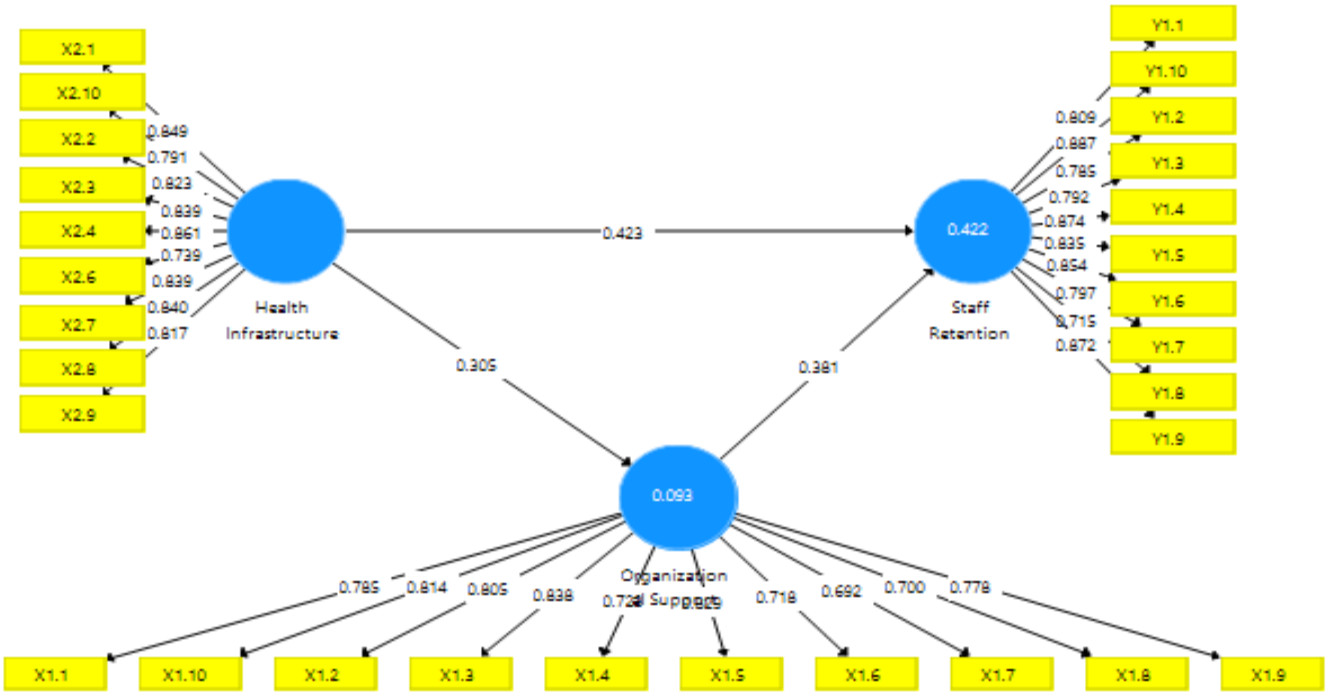

Figure 3. Outter Loading 2

Based on the SEM-PLS model visualization above, it can be observed that the majority of indicators have outer loadings that meet the minimum criteria, with several adjustments made between the first and second iterations. A more detailed analysis of the outer loading values for each indicator is presented in the following table.

Table 2. Evaluation of outer loading

Variable	Construct	Loading Factor 1	Loading Factor 2	Status
Organizational Support	**X1.1**	0.621	0.616	Include
	X1.1	**0.786**	**0.786**	Include
	X1.2	**0.800**	**0.800**	Include
	X1.3	**0.831**	**0.831**	Include
	X1.4	**0.710**	**0.710**	Include
	X1.5	**0.827**	**0.827**	Include
	X1.6	**0.725**	**0.725**	Include
	X1.7	**0.708**	**0.708**	Include
	X1.8	**0.712**	**0.712**	Include
	X1.9	**0.775**	**0.775**	Include
	X1.10	**0.812**	**0.812**	Include
Health Infrastructure	**X2.1**	**0.842**	**0.849**	Include
	X2.10	**0.781**	**0.790**	Include
	X2.2	**0.818**	**0.822**	Include
	X2.3	**0.834**	**0.838**	Include
	X2.4	**0.871**	**0.866**	Include
	X2.5	**0.411**		Exclude
	X2.6	**0.752**	**0.748**	Include
	X2.7	**0.829**	**0.839**	Include
	X2.8	**0.837**	**0.836**	Include
	X2.9	**0.808**	**0.815**	Include
Staff Retention	**Y1.1**	**0.809**	**0.809**	Include
	Y1.10	**0.887**	**0.887**	Include
	Y1.2	**0.783**	**0.784**	Include
	Y1.3	**0.791**	**0.792**	Include
	Y1.4	**0.875**	**0.874**	Include
	Y1.5	**0.835**	**0.835**	Include
	Y1.6	**0.854**	**0.854**	Include
	Y1.7	**0.798**	**0.798**	Include
	Y1.8	**0.715**	**0.715**	Include
	Y1.9	**0.872**	**0.873**	Include

The outer loading test results demonstrate that the measurement model has adequate convergent validity after elimination of indicator X2.5 which did not meet the minimum criteria. The consistency of loading values between Factor 1 and Factor 2 confirms model stability, indicating that the model is ready for the next stage of evaluation in SEM-PLS analysis.

Table 3. Evaluation of measurement model

	CA	CR	AVE
Health Infrastructure	0.941	0.950	0.677
Organizational Support	0.924	0.936	0.593
Staff Retention	0.947	0.955	0.678

Based on Table 3, the measurement model evaluation demonstrates excellent psychometric quality across all research constructs. Cronbach's Alpha values range from 0.924-0.947 (>0.9) and Composite Reliability from 0.936-0.955 (>0.9), indicating very high internal consistency and composite reliability. The Average Variance Extracted (AVE) values for all constructs exceed the 0.5 threshold, with Staff Retention showing the highest AVE (0.678), followed by Health Infrastructure (0.677), and Organizational Support (0.593), demonstrating adequate convergent validity where more than 50% of indicator variance can be explained by their respective latent constructs. These results confirm that the research instrument can measure constructs accurately and consistently, providing a strong foundation for proceeding to the structural model evaluation stage in SEM-PLS analysis.

3. Inner Model

The inner model test results demonstrate the achievement of research findings that address the research hypotheses through both direct and indirect relationship examinations.

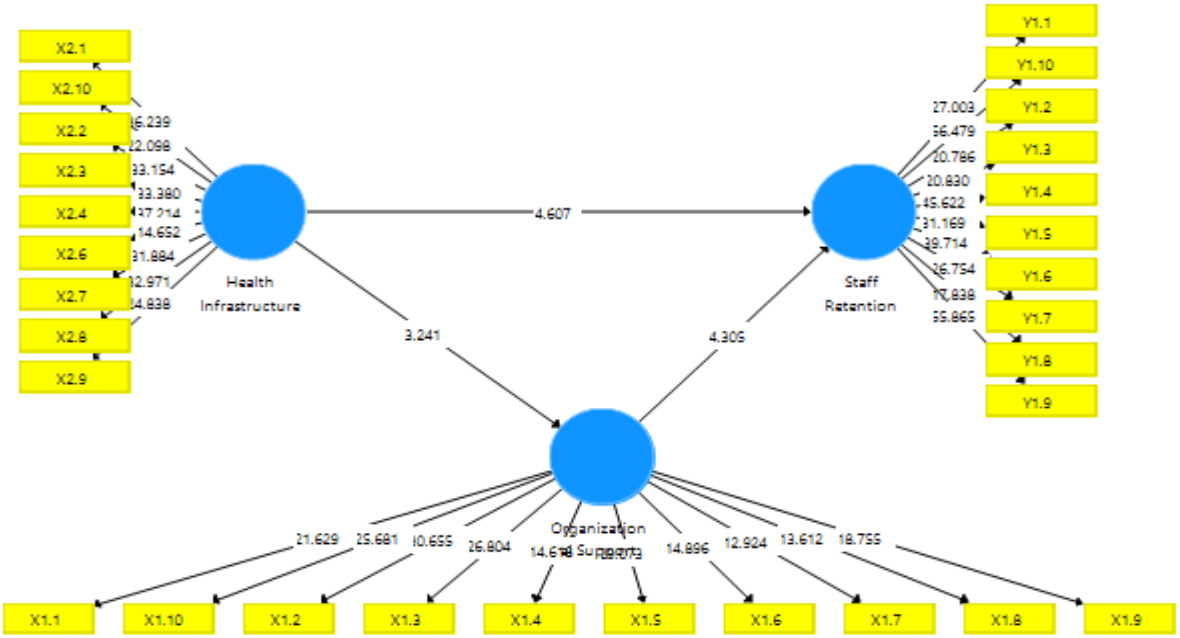

Figure 3. Inner Model

Tabel 4. Direct Effect

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Health Infrastructure -> Organizational Support	0.305	3.241	0.001
Health Infrastructure -> Staff Retention	0.423	4.607	0.000
Organizational Support -> Staff Retention	0.381	4.305	0.000

Based on Table 4, the direct effect test results demonstrate that all paths in the structural model have statistically significant influences ($p < 0.05$). Health Infrastructure on Staff Retention shows the strongest direct effect with a coefficient of 0.423 ($t = 4.607$, $p = 0.000$), indicating that improvements in health infrastructure quality significantly enhance healthcare staff retention. Organizational Support on Staff Retention has a coefficient of 0.381 ($t = 4.305$, $p = 0.000$), demonstrating a strong positive influence of organizational support on staff retention. Interestingly, Health Infrastructure also significantly influences Organizational Support with a coefficient of 0.305 ($t = 3.241$, $p = 0.001$), indicating that good health infrastructure can enhance perceptions of organizational support. All t-statistics values > 1.96 and p-values < 0.05 confirm the statistical significance of the three direct relationships in the model, with Health Infrastructure showing a central role in directly influencing both Organizational Support and Staff Retention.

Tabel 5. Indirect Effect

	Original Sample (O)	T Statistics (|O/STDEV|)	P Values
Health Infrastructure -> Organizational Support -> Staff Retention	0.116	2.335	0.020

Based on Table 5, the indirect effect test results reveal that Health Infrastructure significantly influences Staff Retention through Organizational Support as a mediating variable with a coefficient of 0.116 ($t = 2.335$, $p = 0.020$). This finding indicates that health infrastructure not only directly affects staff retention but also works indirectly by enhancing organizational support, which subsequently improves staff retention. The t-statistic value of 2.335 > 1.96 and p-value of 0.020 < 0.05 confirm the statistical significance of this mediation effect. Although the indirect effect magnitude (0.116) is smaller compared to the direct effects shown in Table 4, it demonstrates an important partial mediation mechanism where organizational support serves as an intermediary variable that explains part of the

relationship between health infrastructure and staff retention. This suggests that improved health infrastructure creates a supportive organizational environment, which in turn contributes to higher healthcare worker retention rates in hinterland areas.

CONCLUSION

1. Organizational support influence healthcare staff retention in hinterland areas

The analysis reveals that organizational support has a significant positive direct effect on healthcare staff retention in hinterland areas. The path coefficient demonstrates a strong relationship, indicating that when healthcare organizations provide better management support, career development opportunities, and employee welfare programs, staff members are significantly more likely to remain in their positions. The statistical significance of this relationship confirms that organizational support serves as a critical retention factor, particularly in challenging hinterland environments where external motivators may be limited. Healthcare workers who perceive higher levels of organizational support report greater job satisfaction, stronger organizational commitment, and increased intention to stay, making organizational support a vital component for addressing workforce shortages in remote healthcare facilities.

2. health infrastructure influence healthcare staff retention in hinterland areas

Health infrastructure demonstrates the strongest direct positive influence on healthcare staff retention among all variables examined. The analysis shows that adequate physical facilities, medical equipment, information technology systems, and logistical support significantly enhance healthcare workers' willingness to remain in hinterland positions. This finding indicates that when healthcare facilities are well-equipped with necessary infrastructure, staff members experience improved working conditions that directly translate to higher retention rates. The strong statistical significance suggests that infrastructure quality serves as a fundamental prerequisite for staff retention, as healthcare workers require appropriate tools and facilities to perform their duties effectively and maintain professional satisfaction in remote locations.

3. health infrastructure influence organizational support in hinterland healthcare settings

The results demonstrate that health infrastructure significantly enhances organizational support in hinterland healthcare settings. This relationship indicates that when healthcare facilities possess adequate infrastructure, it creates an environment where organizational support can be more effectively implemented and perceived by staff. Well-equipped facilities enable management to provide better supervision, facilitate professional development programs, and implement supportive policies more efficiently. The statistical significance of this relationship suggests that infrastructure serves as an enabling factor for organizational support mechanisms, creating a foundation upon which supportive organizational practices can be built and sustained in challenging hinterland environments.

4. health infrastructure influence healthcare staff retention through organizational support as a mediating variable

The mediation analysis reveals that health infrastructure significantly influences healthcare staff retention through organizational support as a partial mediator. This indirect pathway demonstrates that health infrastructure not only directly affects retention but also works through organizational support mechanisms to enhance staff retention outcomes. The significant mediation effect indicates that improved infrastructure facilitates better organizational support practices, which subsequently contribute to higher retention rates. This finding highlights the importance of understanding the interconnected nature of infrastructure and organizational factors, suggesting that infrastructure investments create cascading effects that strengthen the overall supportive environment, ultimately leading to improved staff retention in hinterland healthcare facilities.

REFERENCES

Al Maqbali, M. A. (2015). Factors that influence nurses' job satisfaction: A literature review. *Nursing Management*, *22*(2). https://doi.org/10.7748/nm.22.2.30.e1297

Aspan, H., Wahyuni, E. S., Effendy, S., Bahri, S., Rambe, M. F., & Saksono, F. B. (2019). The moderating effect of personality on organizational citizenship behavior: The case of university lecturers. *International Journal of Recent Technology and Engineering*, *8*(2 Special Issue).

Buykx, P., Humphreys, J., Wakerman, J., & Pashen, D. (2010). Systematic review of effective retention incentives

for health workers in rural and remote areas: Towards evidence-based policy. *Australian Journal of Rural Health*, *18*(3). https://doi.org/10.1111/j.1440-1584.2010.01139.x

Dwivedi, M., Purohit, H., Choudhary, N., & Mehta, D. (2015). Retirement Planning for Women and Solutions for Common Problems. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2666971

Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). The Motivation to Work - With a New Introduction by Frederick Herzberg. *New Brunswick, NJ Transaction Publishers*.

Lopez-Abuin, J. M. (2010). Review of: "Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations: Global policy recommendations." *Rural and Remote Health*. https://doi.org/10.22605/rrh1647

Noya, F., Carr, S., Thompson, S., Clifford, R., & Playford, D. (2021). Factors associated with the rural and remote practice of medical workforce in Maluku Islands of Indonesia: a cross-sectional study. *Human Resources for Health*, *19*(1). https://doi.org/10.1186/s12960-021-00667-z

Nurlinawati, I., Mujiati, M., & Efendi, F. (2023). Factors influencing the retention of specialist doctors in the placement area: realist evaluation approach in the specialist doctor utilization program. *Rural and Remote Health*, *23*(2). https://doi.org/10.22605/RRH7610

Organization, W. H. (2020). Retention of the health workforce in rural and remote areas: a systematic review: web annex A: GRADE evidence profiles. *Human Resources for Health Observer Series*, *25*.

Putri, L. P., O'Sullivan, B. G., Russell, D. J., & Kippen, R. (2020). Factors associated with increasing rural doctor supply in Asia-Pacific LMICs: a scoping review. In *Human Resources for Health* (Vol. 18, Issue 1). https://doi.org/10.1186/s12960-020-00533-4

Ramadhan, F., Wulandari, A., Rumengan, A. E., & Wahyuni, E. S. (2023). The InfluenceOf Profitability Ratio, Earning Per Share And Exchange Rate On StockPriceIn Companies Including The Jakarta Islamic Index On The Indonesia Stock Exchange 2012-2016. *International Journal of Advance Research and InnovativeIdeas in Education*, 619-624

Rumengan, A. E., Wahyuni, E. S., Ramadhan, F., & Gunawan, D. (2022). Does Organizational Commitment Mediate the Relationship Between Motivation and Organizational Citizenship Behavior? *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, *5*(3).

Samuel, M., & Chipunza, C. (2009). Employee retention and turnover: Using motivational variables as a panacea. *African Journal of Business Management*, *3*(8). https://doi.org/10.5897/AJBM09.125

Tan, Z. (2021). Value Orientation and Strategy Analysis of Financial Management of Modern Enterprises. *Modern Economics & Management Forum*, *2*(6). https://doi.org/10.32629/memf.v2i6.536

Wahyuni, E. S., Aspan, H., Ngaliman, N., & Lestari, I. (2023). DETERMINASI NILAI PERUSAHAAN MANUFAKTUR OTOMOTIF DI INDONESIA. *Jurnal Menara Ekonomi : Penelitian Dan Kajian Ilmiah Bidang Ekonomi*, *9*(1). https://doi.org/10.31869/me.v9i1.4796

Wahyuni, E. S., Aspan, H., Rumengan, A. E., Ramadhan, F., Wahyuni, S., & Putra, R. R. (2023). Pengembangan Aplikasi Lelang Hasil Laut Di Kepulauan Riau Development Of Seafood Biding Application In Riau Islands. *Community Engagement & Emergence Journal*, *3*(3), 2023.

Wahyuni, E. S., & Ramadhan, F. (2022). Analisis Faktor Yang Mempengaruhi Locus Of Control Dan Financial Management Behavior Dengan Financial Technology Sebagai Variabel Moderating Pada Dosen Di Batam Selama Masa Pandemic Covid 19. *Jurnal Menara Ekonomi : Penelitian Dan Kajian Ilmiah Bidang Ekonomi*, *8*(2). https://doi.org/10.31869/me.v8i2.3737

Wahyuni, E. S., Yadewani, D., & Zafira, N. (2024). Cerdas Finansial Menuju Masa Keemasan: Mengungkap Dampak Literasi, Tabungan, Dan Tekfin Terhadap Perencanaan Pensiun Di Kalangan Pekerja Industri. *Management Studies and Entrepreneurship Journal (MSEJ)*, *5*(2), 9868–9880. https://doi.org/10.37385/msej.v5i2.6076