



Work Engagement Mediates Perceived Organisational Support, Leader–Member Exchange and Employee Performance

Muslih^{1*} Jasman Saripuddin Hasibuan¹, Rahmad Bahagia¹

Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara
Jln. Kapten Mukhtar Basri No. 3 Medan 20238, Indonesia

CORRESPONDING AUTHOR*: Muslih Faculty of Economics and Business, Universitas Muhammadiyah Sumatera Utara *Email: muslih@umsu.ac.id Keywords: POS, LMX, Work Engagement, Performance DOI: https://doi.org/10.30596/ijbe.v8i1.29987	ABSTRACT Purpose —This study aims to examine the effects of Perceived Organisational Support (POS) and Leader-Member Exchange (LMX) on employee performance, with work engagement serving as a mediating variable among health workers in public health facilities in Medan. Method – This study employed a quantitative approach. The population consisted of health workers from 41 public health facilities in Medan. A total of 180 respondents were selected using a convenience sampling technique. Data were collected through questionnaires, interviews, and documentation. The data were analysed using Structural Equation Modelling (SEM) with SmartPLS 3.0. Results – The findings reveal that Perceived Organisational Support (POS) has a significant positive effect on employee performance and work engagement. Likewise, Leader-Member Exchange (LMX) significantly influences employee performance and work engagement. In addition, work engagement has a significant positive effect on employee performance. The mediation analysis further indicates that work engagement significantly mediates the relationships between POS and employee performance, and between LMX and employee performance. Originality/Novelty – This study offers a research model that integrates POS, LMX, work engagement, and employee performance in the context of public health services. It also highlights the mediating role of work engagement in explaining how organisational support and leader-member relationships contribute to better employee performance. Implications – theoretically, this study contributes to the employee performance literature by highlighting work engagement as a mediating mechanism linking perceived organisational support and leader-member exchange to employee performance. Practically, the findings suggest that public health institutions can improve human resource effectiveness and service quality by strengthening organisational support and fostering high-quality leader-employee relationships.
--	--

Cite this as:

Muslih, Hasibuan, J. S., & Bahagia, R. (2026). Work Engagement Mediates the Effects of Perceived Organisational Support, Leader–Member Exchange, and Employee Performance. *International Journal of Business Economics (IJBE)*, 8(1), 1-28.



INTRODUCTION

Community Health Centres play a highly strategic role in accelerating improvements in public health. Therefore, Puskesmas are required to provide quality and satisfactory services to their patients in accordance with established standards, while also being accessible to all levels of society (Limato et al., 2023; Juliansyah et al., 2024). To create quality and satisfactory health services, the implementation of healthcare delivery requires adequate health human resources, both in terms of quantity, type, and quality (Juliansyah et al., 2024).

Organizations and human resources are now faced with rapid changes and high challenges, where performance is defined as the results achieved by an individual, both qualitatively and quantitatively, in carrying out their tasks and responsibilities (Garengo et al., 2022; Muslih & Hardani, 2022). The performance of individual employees influences organisational success; thus, every organisation strives to manage its human resources effectively. Performance reflects the output of employee work, both in terms of quantity and quality (Awan et al., 2020; Muslih & Pratama, 2022). Performance is observable behaviour, in which individuals act in ways that are relevant to organisational goals (Cabrera & Estacio, 2022). Good performance is one of the main objectives of organisations seeking to achieve high work productivity. Achieving optimal performance cannot be separated from the quality of human resources (Elrehail et al., 2020). Therefore, organisations need to understand the factors that may influence employee performance, one of which is perceived organisational support (POS) (Maan et al., 2020).

In the current public health context, community health centres are required to deliver accessible, responsive, and high-quality primary health services while facing increasingly complex organisational demands. Recent evidence shows that community health centers still need stronger institutional readiness to implement integrated primary health care services (Dhynianti et al., 2025). At the national level, Indonesia also faces a health workforce gap, with the health worker ratio estimated at 3.84 per 1,000 population, below the World Health Organisation threshold of 4.45 (Muharram et al., 2024). These conditions indicate that improving employee performance in public health institutions requires not only technical competence but also organisational support, effective leadership relationships, and psychological attachment to work.

Perceived organisational support (POS) is a key factor because employees tend to perform better when they believe that the organisation values their contributions and cares about their well-being (Eisenberger et al., 2020). Organisational support theory, rooted in social exchange logic, explains that employees reciprocate favorable organizational treatment through positive attitudes and stronger work behaviours (Caesens & Stinglhamber, 2020). Empirically, POS has been found to enhance psychological empowerment and job satisfaction (Maan et al., 2020), and to strengthen work engagement through thriving and flourishing at work (Imran et al., 2020). However, previous findings remain inconsistent. Some studies support a direct relationship between POS and performance, whereas others indicate that POS influences performance indirectly through psychological mechanisms such as job satisfaction, empowerment, differential treatment, or work engagement (Jeong & Kim, 2022; Maan et al., 2020). This inconsistency suggests the need to clarify how POS contributes to employee performance in public health institutions.

Leader-member exchange (LMX) is also relevant because performance in health

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



service organisations depends on daily coordination, trust, communication, and support between leaders and staff. High-quality LMX provides employees with access to information, recognition, and socio-emotional support, which may encourage commitment and discretionary contributions. In hospital settings, Che et al., (2021) found that LMX improves task performance through organisational citizenship behaviour. Santalla-Banderali & Alvarado (2022) Further showed that LMX quality affects work performance through communication satisfaction and work engagement. Nevertheless, the LMX-performance relationship is not always direct. Mulligan et al., (2021) and Jufrizen et al., (2024) indicate that work engagement can mediate the relationships between leadership and work outcomes.

Work engagement is therefore positioned as the core psychological mechanism in this study. Engaged employees demonstrate vigour, dedication, and absorption, which help them invest more energy in serving patients and achieving organisational goals. Meta-analytic evidence confirms that work engagement is positively related to behavioural and performance outcomes across sectors (Borst et al., 2020; Corbeanu & Iliescu, 2023). Thus, the novelty of this study lies in integrating POS, LMX, work engagement, and employee performance in the context of public health institutions. This study aims to examine the effects of POS and LMX on employee performance and to analyse the mediating role of work engagement in these relationships.

Hypothesis Development

The Relationship between Perceived Organisational Support and Work Engagement

Perceived Organisational Support (POS) plays a central role in enhancing employee work engagement. POS refers to employees' belief that the organisation values their contributions and cares about their well-being. Employees who perceive strong support typically show greater energy, motivation, and dedication, which directly increases their engagement with both their tasks and the organisation. Research consistently confirms the significant influence of POS on work engagement, especially in healthcare, where workers face heavy workloads and emotional strain (Şanlıöz et al., 2023). During crises such as the COVID-19 pandemic, POS also functioned as a protective factor, fostering engagement among healthcare workers across public service facilities (Ashfaq et al., 2023). Similar results were that organisational support promoted engagement by improving psychological safety and intrinsic motivation (Schuh et al., 2021), and in Mexico, where POS showed positive effects across cultural contexts (Ortiz-Isabeles & García-Avitia, 2021). The mechanism of this relationship has been further explored. Musenze et al., (2021) demonstrated that self-efficacy mediates the link between POS and engagement, underscoring the role of psychological resources. POS also facilitates the fulfilment of basic psychological needs, autonomy, competence, and relatedness, which strengthen engagement (Ni et al., 2023). Beyond engagement, organisational support has been shown to enhance employees' creativity and innovation through engagement as a mediator (Aldabbas et al., 2025). Moreover, positive psychological capital was found to amplify the impact of POS on engagement, suggesting that supportive organisations foster a more resilient and productive workforce (Kirilmaz, 2022). Overall, the literature highlights that higher perceptions of organisational support consistently predict stronger employee engagement, forming the basis for the proposed hypothesis.

H1: Perceived Organisational Support Affects Work Engagement



The Relationship between Perceived Organisational Support and Healthcare Workers' Performance

Perceived Organisational Support (POS) not only enhances work engagement but also directly relates to healthcare workers' performance. POS reflects the extent to which employees feel that their contributions are valued and their well-being is cared for by the organisation. In the healthcare context, the perception of organisational support is particularly important due to the high workload, health risks, and psychological pressures experienced by healthcare professionals. Research shows that healthcare workers who perceive strong organisational support tend to demonstrate better job performance in terms of productivity, service quality, and organisational citizenship behaviour (Şanlıöz et al., 2023). Similar findings were reported by (Chatzittofis et al., 2021), who revealed that POS contributes to the formation of positive psychological states that promote performance even under high-pressure conditions, such as during the COVID-19 pandemic. In China, a study by (Song et al., 2023) found that POS positively correlates with the performance of primary healthcare workers, particularly through enhanced individual resilience and workplace social support.

Meanwhile, a study in Jordan indicated that POS strengthens organisational commitment, which ultimately impacts healthcare workers' performance (Saadeh & Suifan, 2019). Furthermore, research by Ma et al., (2023) demonstrated that POS significantly influences nurses' performance through the mediation of psychological capital and organisational identification. This suggests that supportive organisations not only provide direct benefits to performance but also shape psychological factors and professional identity that reinforce healthcare workers' contributions. Another study conducted in Turkey confirmed that job satisfaction and affective commitment-both influenced by POS-are strong predictors of improved performance and reduced turnover intentions (Gün et al., 2021). Thus, the literature consistently emphasises that POS positively impacts healthcare workers' performance, both directly and through mediating psychological factors. Based on this review, the following hypothesis is proposed:

H2: Perceived Organisational Support Affects Performance

The Relationship between Leader-Member Exchange and Work Engagement

Leader-Member Exchange (LMX) is a theory that emphasises the quality of dyadic relationships between leaders and subordinates, characterised by trust, respect, and reciprocal obligations. High-quality LMX relationships are believed to enhance work engagement, as leaders function not only as providers of instructions but also as sources of support, inspiration, and motivation. Recent studies indicate that LMX has a significant influence on work engagement, particularly through improvements in communication, job satisfaction, and psychological empowerment (Santalla-Banderali & Alvarado, 2022 ; Wagner & Koob, 2022). Research by Kapil & Rastogi, (2020) further confirms that LMX is positively correlated with communication satisfaction and engagement, which in turn contributes to enhanced individual performance. Aggarwal et al., (2020) found that psychological empowerment mediates the relationship between LMX and work engagement, suggesting that employees who feel empowered tend to be more engaged in their work. In addition, Liu et al., (2023) confirmed that specific resources, such as task support and job mastery, explain the mechanism through which LMX improves engagement. On a broader scale, Kananu et al., (2020) highlighted that LMX fosters



innovative work behavior through enhanced employee engagement. More recent research revealed that the trajectory of work engagement develops significantly in line with the consistency of positive interactions between leaders and subordinates, emphasising the importance of long-term relationship quality in LMX (Tóth-Király et al., 2023).

Furthermore, Du et al., (2022) underscored the role of LMX in sustainable work environments, showing that social relations (moqi) facilitated by LMX strengthen employee engagement in organisations adopting green management practices. Thus, the literature consistently emphasises that the higher the quality of leader-subordinate relationships, the greater the level of employee work engagement. Based on this discussion, the following hypothesis is proposed:

H3: Leader–Member Exchange Affects Work Engagement.

The Relationship between Leader-Member Exchange and Healthcare Workers' Performance

Leader-Member Exchange (LMX) is a theory that emphasises the quality of interactions between leaders and subordinates, encompassing mutual trust, loyalty, and reciprocal support. In the context of healthcare organisations, the quality of LMX strongly influences healthcare workers' performance, as leaders play a critical role in providing guidance, emotional support, and opportunities for development. Recent studies demonstrate that LMX is positively correlated with individual performance, including innovative and proactive behaviours among healthcare professionals. For example, Cheng et al., (2024) found that high-quality LMX enhances nurses' innovative behaviour, thereby directly improving the quality of patient care. Similarly, Bennouna et al., (2023) In their study of healthcare workers in Algeria, they found that LMX significantly affects safety behaviour through the mediating role of job satisfaction, ultimately increasing their effectiveness. This finding highlights that leaders who build strong relationships with their staff not only foster engagement but also create a safer and more productive work climate.

Furthermore, Saygili et al., (2025) emphasised that high-quality LMX reduces healthcare workers' turnover intentions by enhancing job satisfaction and organisational commitment, which in turn contributes to long-term performance improvement. Baş et al., (2024) also confirmed that LMX strengthens work integration through knowledge-sharing behaviours, thereby supporting the effectiveness of collaboration among medical staff. These consistent findings indicate that high-quality leader-member relationships can enhance healthcare workers' performance both directly and indirectly, through increased satisfaction, commitment, and innovative behaviour. Based on this reasoning, the following hypothesis is proposed:

H4: Leader–Member Exchange Affects Workforce Performance

The Relationship between Work Engagement and Healthcare Workers' Performance

Work engagement has been widely recognised as a key factor driving healthcare workers' performance. This concept comprises three main dimensions-vigour, dedication, and absorption-which collectively influence work behaviour and individual outcomes. Evidence shows that healthcare professionals with high levels of work engagement tend to be more proactive, enthusiastic, and committed to delivering healthcare services, thereby improving the quality of patient care. A study conducted in the United Arab Emirates confirmed that work engagement is significantly related to nurses' performance in the



public health sector, where high engagement strengthens the relationship between job characteristics and work outcomes (Al Badi et al., 2023). Furthermore, cross-national research demonstrated that work engagement serves as an important mediator in the relationships among burnout, professional self-efficacy, life satisfaction and healthcare workers' performance. In other words, engagement helps buffer the negative effects of job stress on performance (Bernales-Turpo et al., 2022). Similarly, Hasan et al., (2023) found that transformational leadership enhances nurses' performance through work engagement as the main mediating mechanism. In the European context, research has confirmed that engagement among primary healthcare workers is crucial to preventing excessive referrals to secondary hospitals, as engaged staff are better able to resolve health issues at the first level of care (Szilvassy & Šírok, 2022).

Additionally, Sadovyy et al., (2021) revealed that emotional intelligence strengthens the relationship between work engagement and professional performance among healthcare workers during the COVID-19 pandemic, underscoring the role of psychosocial factors in times of crisis. Taken together, these consistent findings across diverse contexts indicate that work engagement is a critical predictor of healthcare workers' performance, both under normal circumstances and during crises. Based on this reasoning, the following hypothesis is proposed:

H5: Work Engagement Affects Performance.

Work Engagement as a Mediator in the Relationship between Perceived Organisational Support and Healthcare Workers' Performance

Perceived Organisational Support (POS) is believed to exert a direct influence on healthcare workers' performance and to operate indirectly through work engagement as a mediating variable. According to the Job Demands-Resources (JD-R) theory, organisational resources such as perceived support enhance employees' engagement, which in turn improves individual performance. Recent evidence supports this perspective. Şanlıöz et al., (2023) Research findings showed that perceived organisational support (POS) plays an important mediating role in the relationship between work engagement and healthcare workers' performance, highlighting that organisational support strengthens the positive impact of engagement on job outcomes. Similarly, research on healthcare workers has found consistent results, indicating that organisational support enhances the positive relationship between work engagement and employee performance. Ashfaq et al., (2023) demonstrated that POS boosted nurses' engagement in hospitals, which subsequently contributed to service quality improvements even under highly stressful conditions. In the same vein, Li et al., (2022) emphasised that work engagement mediates the relationship between POS and both turnover intention and performance, particularly among frontline hospital staff.

Furthermore, (2023) found that the fulfilment of basic psychological needs (autonomy, competence, and relatedness) mediates the effect of POS on engagement, thereby enhancing healthcare workers' performance. Other studies also confirm that self-efficacy serves as an essential mechanism linking POS to engagement, thereby indirectly supporting performance (Musenze et al., 2021). Taken together, these consistent findings indicate that POS contributes to healthcare workers' performance primarily by fostering greater work engagement. In other words, organisational support not only nurtures a sense of security and job satisfaction but also cultivates healthcare professionals who are more



energetic, dedicated, and focused. Based on this reasoning, the following hypothesis is proposed:

H6: Perceived Organisational Support Influences Performance Through Work Engagement.

Work Engagement as a Mediator in the Relationship between Leader-Member Exchange and Healthcare Workers' Performance

Leader-Member Exchange (LMX) plays a crucial role in establishing high-quality relationships between leaders and subordinates, which ultimately influence performance. However, this effect often does not occur directly but rather through psychological mechanisms such as work engagement. Based on social exchange theory, leaders who foster trust, support, and open communication encourage subordinates to feel valued and involved. This sense of inclusion enhances their work engagement, which subsequently contributes to higher performance. Recent studies confirm that engagement serves as a key mediator in the relationship between LMX and performance. Research on healthcare workers in Europe demonstrated that strong LMX relationships enrich the work environment by providing resources such as social support and development opportunities. These resources strengthen work engagement, which in turn drives healthcare workers' performance in delivering quality services (Eshete & Kassahun, 2025). Similarly, studies in Asia have shown that higher-quality leader-member exchange (LMX) relationships reduce turnover intention through enhanced work engagement, indicating that engagement not only boosts performance but also supports retention of human resources in healthcare settings (Kim & Han, 2022). Consistent findings have also been reported by Aggarwal et al., (2020), who identified psychological empowerment as an additional mechanism reinforcing the mediating role of engagement in the LMX-performance relationship.

Furthermore, the Job Demands-Resources (JD-R) model supports this view, emphasising that LMX provides essential job resources to enhance employees' energy and dedication. Engaged employees are more proactive, intrinsically motivated, and likely to exhibit organisational citizenship behaviours (OCB), all of which are strongly associated with improved healthcare performance (Wagner & Koob, 2022). Overall, the literature consistently affirms that high-quality LMX fosters greater work engagement, which in turn enhances healthcare workers' performance. Thus, the following hypothesis is proposed:

H7: Leader-Member Exchange Influences Performance Through Work Engagement.

The conceptual framework developed in this study illustrates the relationships among Leader-Member Exchange, Perceived Organisational Support, Work Engagement, and Performance. It also highlights the mediating role of work engagement in strengthening the link between leadership quality and employee outcomes. The proposed research model is presented in Figure 1 below.

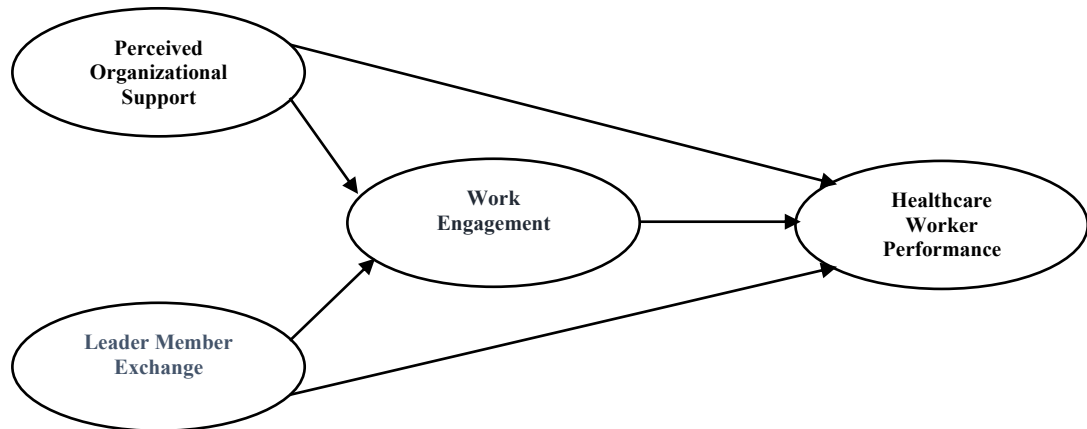


Figure 1. Research Model

METHODS

Research Design; This study employed an explanatory quantitative research design to examine the causal relationships among Perceived Organisational Support (POS), Leader-Member Exchange (LMX), work engagement, and employee performance. A quantitative design was considered appropriate because the study tested a theoretically developed model using numerical data, structured measurement, and hypothesis testing. The model was analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM), which is suitable for examining complex relationships among latent variables and mediation effects (Hair Jr. et al., 2020).

Population and Sample: The population comprised administrative health workers employed at 41 public health facilities in Medan. The sampling technique used was convenience sampling because respondents were selected based on accessibility, willingness to participate, and relevance to the research criteria. The final sample consisted of 180 respondents. This sample size was considered adequate for PLS-SEM because the method can be applied to prediction-oriented models with latent constructs and multiple indicators, provided that the sample meets the minimum requirements for model estimation and hypothesis testing.

Data Collection Procedure: Data were collected through a structured questionnaire distributed to public health workers who met the respondent criteria. Before completing the questionnaire, respondents were informed about the purpose of the study, voluntary participation, confidentiality of responses, and the use of data for academic purposes only. In addition to questionnaires, interviews and document review were used to support contextual understanding of the research object.

Measurement of Variables; All constructs were measured using a Likert scale ranging from strongly disagree to strongly agree. The operational indicators were adapted from recent empirical studies and adjusted to the public health service context.

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



Tabel 1. Measurement Indicators of Research Variables

No	Variable	Indicators	Sources
1	Perceived Organizational Support	Organizational concern for employee well-being, recognition of contribution, fairness, supervisor support, availability of work resources	Eisenberger et al. (2020); Şanlıöz et al. (2023)
2	Leader-Member Exchange	Mutual trust, respect, open communication, loyalty, reciprocal support, leader attention	Che et al. (2021); Santalla-Banderali and Alvarado (2022)
3	Work Engagement	Vigor, dedication, absorption, enthusiasm, willingness to invest effort	Bakker et al. (2023); Corbeanu and Iliescu (2023)
4	Employee Performance	Task effectiveness, service quality, work accuracy, timeliness, administrative responsiveness, contribution to service outcomes	Şanlıöz et al. (2023); Corbeanu and Iliescu (2023)

Validity and Reliability Assessment; The measurement model was evaluated through convergent validity, discriminant validity, and reliability. Convergent validity was assessed using outer loading and Average Variance Extracted (AVE). Reliability was examined using Cronbach's alpha and Composite Reliability. Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT). These procedures ensure that each construct is measured consistently and is empirically distinct from other constructs in the model.

Data Analysis Technique: Data analysis was conducted using SmartPLS version 3.0. The analysis included descriptive statistics, measurement model assessment, and structural model testing. The structural model was evaluated using path coefficients, t-statistics, p-values, R-squared, and mediation testing through bootstrapping. This technique allowed the study to examine both direct and indirect effects among POS, LMX, work engagement, and employee performance.

RESULTS

The respondents in this study are public healthcare workers employed across various healthcare facilities in Medan, including government hospitals, private hospitals, community health centres, and clinics or independent practices. The total number of respondents involved in this study is 180. To provide a clearer picture of the respondents' profile, the distribution of their characteristics is presented based on gender, age, highest educational attainment, healthcare profession, years of service, and employment status.

Table 2. Respondent Characteristics

Characteristic	Category	Number (n)	Percentage (%)
Gender	Male	60	33.3
	Female	120	66.7
Age (Years)	< 25	20	11.1
	25-34	70	38.9
	35-44	55	30.6

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



Characteristic	Category	Number (n)	Percentage (%)
Educational Level	≥ 45	35	19.4
	Diploma in Health (D3)	40	22.2
	Bachelor in Health Sciences (S1)	75	41.7
	Professional Degree (Nurse/Doctor/Midwife)	45	25.0
	Postgraduate (Master/PhD)	20	11.1
Healthcare Profession	Doctor	25	13.9
	Nurse	70	38.9
	Midwife	35	19.4
	Public Health Worker	20	11.1
	Pharmacist/Analyst/Nutritionist	30	16.7
Years of Service	< 1 year	15	8.3
	1-5 years	60	33.3
	6-10 years	55	30.6
	> 10 years	50	27.8
Employment Status	Civil Servant (ASN)	80	44.4
	Non-ASN/Contract	70	38.9
	Volunteer Worker	30	16.7
Total		180	100

Table 2 presents the demographic and professional characteristics of the 180 public healthcare workers who participated in this study. The majority of respondents are female (66.7%), while male respondents account for 33.3%. In terms of age distribution, the largest group of respondents is in the 25-34-year age range (38.9%), followed by those aged 35-44 years (30.6%), ≥45 years (19.4%), and those under 25 years old (11.1%). Regarding educational attainment, most respondents held a bachelor's degree in health sciences (41.7%), followed by those with a professional qualification (nurse, doctor, or midwife) (25.0%), a diploma in health (22.2%), and postgraduate education (11.1%). Among healthcare professions, nurses constitute the largest group (38.9%), followed by midwives (19.4%), doctors (13.9%), pharmacists/analysts/nutritionists (16.7%), and public health workers (11.1%). For years of service, about one-third of respondents have worked for 1-5 years (33.3%), while 30.6% have worked for 6-10 years. Additionally, 27.8% of respondents reported more than 10 years of experience, and 8.3% had less than 1 year of service. In terms of employment status, civil servants (ASN) comprise the largest share of respondents (44.4%), followed by non-ASN/contract workers (38.9%), and volunteer workers (16.7%). Overall, the data indicate that the respondents are predominantly female, within the productive age group of 25-34 years, hold a bachelor's degree in health sciences, and most commonly work as nurses. In addition, many respondents have between 1-10 years of work experience and are employed as civil servants in public healthcare institutions.

These demographic patterns provide an important context for interpreting the main study variables. The predominance of respondents in the productive age group and with formal health-related education suggests a workforce likely to exhibit higher levels of work engagement, as younger, professionally trained workers often show greater energy, dedication, and adaptability. The dominance of nurses in the sample highlights a group that is

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



particularly sensitive to perceived organisational support (POS), as nurses often rely on institutional recognition, fairness, and resource allocation to sustain performance. Similarly, employment status shapes leader-member exchange (LMX): Civil servants, who constitute the majority, may experience more formalised leader-member interactions, whereas contract and volunteer workers may rely more heavily on interpersonal trust and supervisory support. Finally, the combination of age, education, tenure, and profession influences overall performance, with mid-career healthcare workers and those with professional qualifications typically demonstrating stronger task effectiveness and service quality.

The evaluation of the measurement model indicators includes an examination of individual item reliability, internal consistency (composite reliability), average variance extracted (AVE), and discriminant validity. The first three measures (item reliability, composite reliability, and AVE) are combined under the concept of convergent validity, which assesses the extent to which the indicators consistently measure the same construct. This approach ensures that each indicator is valid with respect to convergence before further analysis of the relationships among variables in the model is conducted.

Convergent validity consists of three types of testing: item reliability (validity of each indicator), composite reliability, and average variance extracted (AVE). The purpose of convergent validity is to evaluate the extent to which the indicators explain the dimension they represent. In other words, the higher the value of convergent validity, the stronger the ability of a dimension to represent the latent variable being measured. This approach helps ensure that each indicator accurately reflects the intended construct before analysing the relationships among variables.

Item reliability, often referred to as indicator validity, can be assessed using standardised factor loadings. The loading factor reflects the strength of the correlation between each indicator and the construct it represents. According to Hair et al., (2024) A loading factor value above 0.70 is considered ideal, indicating that the indicator is valid in measuring the intended construct. However, a loading factor value above 0.50 is still acceptable. Conversely, indicators with a loading factor value below 0.50 should be considered for removal from the model. The item reliability values can be observed in the outer loading column.

Table 3. Outer Loading

	LMX	POS	Performance	Work Engagement
LMX1	0.735			
LMX10	0.714			
LMX2	0.781			
LMX3	0.851			
LMX4	0.743			
LMX5	0.746			
LMX6	0.814			
LMX7	0.849			
LMX8	0.730			
LMX9	0.736			
P1			0.836	

International Journal of Business Economics (IJBE)Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



	LMX	POS	Performance	Work Engagement
P2			0.714	
P3			0.726	
P4			0.798	
P5			0.808	
P6			0.701	
P7			0.830	
P8			0.771	
POS1		0.739		
POS2		0.718		
POS3		0.745		
POS4		0.707		
POS5		0.716		
POS6		0.744		
POS7		0.760		
POS8		0.756		
WE1				0.864
WE2				0.702
WE3				0.739
WE4				0.783
WE5				0.864
WE6				0.723
WE7				0.855
WE8				0.707
WE9				0.725

Based on Table 3, the outer loading values for all indicators are above 0.50. This shows that each indicator adequately represents the variable it measures. Thus, the variables and indicators used in this study are valid and suitable for further analysis, supporting the reliability of the research model.

Statistics used to measure composite reliability or construct reliability include Cronbach's alpha and D.G. rho (PCA). Cronbach's alpha estimates the lower bound of a construct's reliability, while composite reliability assesses its actual reliability. According to Hair et al., (2024), composite reliability and Cronbach's alpha values greater than 0.60 indicate that the construct has a high level of reliability. Cho, (2020) also emphasized that this reliability value shows the internal consistency of indicators in measuring the construct in question. (2021) emphasised that evaluating the reliability value is an important part of ensuring the validity of measuring instruments in research. Thus, constructs that meet these criteria can be considered valid and suitable for further analysis.

Table 4. Composite Reliability

	Cronbach's Alpha	rho A	Composite Reliability
LMX	0.924	0.925	0.936
POS	0.880	0.887	0.904
Performance	0.904	0.906	0.923
Work Engagement	0.917	0.920	0.931

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



Based on Table 4, the composite reliability values for each construct are as follows: Leader-Member Exchange (0.936), Perceived Organisational Support (0.904), Performance (0.923), and Work Engagement (0.931). Meanwhile, the Cronbach's alpha values are 0.924 for Leader-Member Exchange, 0.880 for Perceived Organisational Support, 0.904 for Performance, and 0.917 for Work Engagement. All Cronbach's alpha and composite reliability values are above the 0.60 threshold, indicating that the four variables have good reliability and can be relied upon as measurement instruments in this study.

Furthermore, Average Variance Extracted (AVE) represents the proportion of a construct's variance explained by its items relative to the variance attributable to measurement error. The commonly used standard states that if the AVE value is greater than 0.50, the construct has good convergent validity. In other words, the latent variable explains more than half of the variance in its indicators, indicating that the indicators adequately represent the construct being measured and are suitable for further analysis within the research model.

Table 5. Average Variance Extracted (AVE) Results

	Average Variance Extracted (AVE)
LMX	0.595
POS	0.541
Performance	0.600
Work Engagement	0.603

Based on Table 5, the Average Variance Extracted (AVE) value for each construct is as follows: Leader-Member Exchange 0.595, Perceived Organisational Support 0.541, Performance 0.600, and Work Engagement 0.603. All AVE values are above the 0.50 threshold, which indicates that the constructs have good convergent validity. This means that the latent variable explains, on average, more than half of the variance of its indicators, so that each indicator adequately represents the construct being measured and can be used reliably in the analysis of the research model.

Checking discriminant validity in the reflective measurement model involves assessing cross-loadings and comparing the AVE with the square of the correlations between constructs. Cross-loading measures the extent to which indicators correlate with their constructs compared to other constructs in the model. A construct is said to have good discriminant validity if its indicators are better able to explain the variance in its construct than the variance in other constructs. Thus, valid indicators show a strong attachment to the latent variable being measured (Henseler et al., 2023; Voorhees et al., 2020)). The following table presents the discriminant validity value for each indicator in this study.

Table 6. Discriminant Validity

	LMX	POS	Performance	Work Engagement
LMX1	0.735	0.500	0.498	0.355
LMX10	0.714	0.485	0.620	0.451
LMX2	0.781	0.499	0.505	0.399

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



LMX3	0.851	0.492	0.509	0.381
LMX4	0.743	0.522	0.583	0.459
LMX5	0.746	0.454	0.497	0.342
LMX6	0.814	0.497	0.548	0.450
LMX7	0.849	0.520	0.515	0.361
LMX8	0.730	0.500	0.522	0.414
LMX9	0.736	0.487	0.540	0.371
P1	0.561	0.569	0.836	0.649
P2	0.420	0.558	0.714	0.518
P3	0.460	0.471	0.726	0.613
P4	0.607	0.603	0.798	0.570
P5	0.582	0.607	0.808	0.573
P6	0.529	0.561	0.701	0.538
P7	0.578	0.582	0.830	0.627
P8	0.569	0.569	0.771	0.534
POS1	0.495	0.739	0.486	0.413
POS2	0.471	0.718	0.473	0.446
POS3	0.556	0.745	0.678	0.595
POS4	0.457	0.707	0.626	0.418
POS5	0.433	0.716	0.516	0.361
POS6	0.431	0.744	0.464	0.317
POS7	0.431	0.760	0.482	0.310
POS8	0.479	0.756	0.468	0.307
WE1	0.374	0.404	0.576	0.864
WE2	0.315	0.421	0.509	0.702
WE3	0.356	0.310	0.472	0.739
WE4	0.471	0.416	0.614	0.783
WE5	0.399	0.446	0.575	0.864
WE6	0.294	0.383	0.469	0.723
WE7	0.418	0.456	0.536	0.855
WE8	0.484	0.513	0.703	0.707
WE9	0.457	0.481	0.659	0.725

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



Based on Table 6, the discriminant validity value and loading factor for each variable show a higher correlation with its own variable than with other variables. This also applies to the indicators in each variable, which show the consistency and accuracy of the placement of indicators on relevant constructs. In other words, each indicator successfully measures the intended concept and is not mixed with other variables. These findings confirm that the structure of the research model is appropriate, supporting the reliability and validity of the measurements used in data analysis.

Another measurement criterion is using the Heterotrait-Monotrait Ratio (HTMT) value, which is a modern method for assessing discriminant validity in Structural Equation Modelling (SEM) models. Discriminant validity ensures that each construct is significantly different from the others and measures the intended concept. According to Henseler et al., (2023), if the HTMT value is <0.90 , the construct has good discriminant validity. HTMT is more sensitive than traditional methods such as the Fornell-Larcker Criterion because it can detect overlapping constructs that are often missed. Therefore, HTMT testing is essential to ensure research indicators are specific and accurate.

Table 7. Heretroit-Monotoroit Ratio (HTMT)

	Leader Member Exchange	Perceived Organizational Support	Performance
LMX			
POS	0.704		
Performance	0.756	0.799	
Work Engagement	0.551	0.589	0.807

Based on Table 7, the discriminant validity values measured using the Research findings showed that perceived organisational support (POS) plays an important mediating role in the relationship between work engagement and healthcare workers' performance, highlighting that organisational support strengthens the positive impact of engagement on job outcomes. Similarly, research on healthcare workers has found consistent results, indicating that organisational support enhances the positive relationship between work engagement and employee performance.(HTMT) for each variable are below the 0.90 threshold. This indicates that each variable has a lower correlation with other variables than with itself, thereby ensuring its discriminant validity. Similarly, the indicators for each variable show the same pattern, confirming that their placement is appropriate. These findings ensure that each indicator specifically measures the intended construct and does not overlap with other variables, thus supporting the reliability and accuracy of the research model.

R-squared measures the proportion of variation in endogenous variables explained by exogenous variables, so it is useful for assessing how well the model can predict the data. A high R-squared value indicates that the model has good predictive ability. In general, an R-square value of 0.75 indicates a substantial model (good), 0.50 indicates a moderate model (medium),

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



and 0.25 indicates a weak model (bad) (Hair et al., 2021). Based on data processing using SmartPLS 3.0, the R-square value for each endogenous latent variable can be seen in the following figure and table:

Table 8. R-Square Test Results

	R Square	R Square Adjusted
Performance	0.740	0.735
Work Engagement	0.356	0.348

Based on Table 8, the effect of Work Engagement, Leader-Member Exchange, and Perceived Organisational Support on Performance shows an R-square value of 0.740. This indicates that 74% of the variation in performance can be explained by the three variables, while other factors outside the model account for the remaining 26%. In other words, this model is substantial or has good predictive ability. Furthermore, the effect of Leader-Member Exchange and Perceived Organisational Support on Work Engagement shows an R-square value of 0.256, indicating that 25.6% of the variation in Work Engagement is explained by these two variables. In comparison, 74.4% is influenced by other factors, indicating a moderate model in explaining Work Engagement.

Hypothesis Testing

The structural model assessment was conducted to examine the direction, magnitude, and significance of both direct and indirect relationships among the research variables. The path coefficient results are used not only to determine whether the hypotheses are supported but also to understand how Leader-Member Exchange, Perceived Organisational Support, and Work Engagement jointly explain employee Performance. The results of the direct and indirect effect testing using SmartPLS 3.0 are summarised in Table 9.

Table 9. Summary of Hypothesis Testing for Direct and Indirect Effects

	Original Sample (O)	Sample Mean (M)	T Statistics (O/STDEV)	P Values	Decision
LMX → Performance	0.270	0.266	3.938	0.000	Accepted
LMX → Work Engagement	0.277	0.285	3.151	0.002	Accepted
POS → Performance	0.316	0.322	3.922	0.000	Accepted
POS → Work Engagement	0.379	0.379	4.159	0.000	Accepted
Work Engagement → Performance	0.429	0.427	6.149	0.000	Accepted
LMX → Work Engagement → Performance	0.119	0.121	2.885	0.004	Accepted
POS → Work Engagement → Performance	0.163	0.163	3.284	0.001	Accepted

Table 9 indicates that all direct and indirect relationships in the structural model are positive and significant. Work Engagement has the strongest direct effect on Performance,

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



showing that engaged employees tend to achieve better outcomes. POS has a stronger influence than LMX on Work Engagement and Performance, emphasising the importance of organisational support. The significant indirect effects confirm that Work Engagement mediates the relationships between LMX and Performance and between POS and Performance. Since the direct effects are also significant, the mediation is partial. Overall, these findings highlight the combined role of leadership, support, and engagement in improving employee performance.

DISCUSSION

The Effect of Perceived Organisational Support (POS) on Performance.

The finding that POS strengthens the performance of public health workers in Medan should be interpreted not merely as statistical confirmation, but as evidence of a social exchange process in which employees respond to valued treatment with stronger work contribution. According to organisational support theory, employees who perceive that their institution appreciates their contribution and cares about their well-being develop obligation, trust, and identification with the organisation (Eisenberger et al., 2020). This mechanism explains why organisational support can improve performance: support provides emotional security, access to resources, fair treatment, and confidence that employees are not working alone in demanding service conditions. This result is consistent with Imran et al (2020), who showed that POS promotes work engagement through thriving and flourishing, and with Rubel et al. (2021), who found that POS links high-performance work practices to better outcomes among medical professionals. In the health sector, Ashfaq et al., (2023) also demonstrated that POS supports work engagement through well-being, particularly when employees have resilience. Similarly, Şanlıöz et al. (2023) found that POS mediates the relationship between work engagement and job performance among healthcare professionals. However, the present finding also responds to inconsistencies in prior studies. Liu et al., (2023) reported that POS may affect performance directly in office-based work, but indirectly through job satisfaction and work engagement in remote work settings. Thus, the POS-performance relationship is not always uniform; it depends on work context, socioemotional needs, and organisational resources. Theoretically, this study strengthens organisational support theory by confirming that POS remains a relevant antecedent of employee performance in public health institutions. Managerially, leaders should institutionalise support through fair workload distribution, responsive supervision, recognition, career development, psychological safety, and adequate facilities. Such practices can make employees feel valued and encourage them to reciprocate through better service performance.

The Effect of Perceived Organisational Support (POS) on Work Engagement.

The positive association between POS and work engagement should be understood as a psychological and social exchange mechanism, not merely as a statistical effect. Organisational support theory explains that employees who feel valued, respected, and cared for by their institution develop an obligation to reciprocate through greater involvement, energy, and dedication (Eisenberger et al., 2020). From the job demands-resources perspective, POS also functions as a job resource that helps employees manage workload pressure, maintain emotional

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



stability, and remain absorbed in service activities. Thus, public health workers who receive recognition, fair treatment, adequate facilities, and responsive supervision are more likely to demonstrate vigor, dedication, and absorption. This finding is consistent with Imran et al (2020), who found that POS enhances work engagement through thriving and flourishing, and with Ashfaq et al (2023), who showed that POS strengthens engagement among clinical hospital staff through well-being, particularly when resilience is high. Similar evidence was reported by Li et al. (2022), who found that POS increases work engagement among frontline healthcare personnel, and by Jankelová et al., (2021), who demonstrated that POS promotes engagement among first-line healthcare managers through feedback-seeking behavior. However, previous studies also indicate that the POS-engagement relationship is not always direct. Şanlıöz et al. (2023) positioned POS as a mediating mechanism between engagement and performance, while Bonaiuto et al. (2022) emphasized broader psychosocial variables. These differences suggest that POS may operate either as a direct organizational resource or as part of a wider motivational process. Theoretically, this study strengthens organizational support theory by confirming that perceived support is an important antecedent of engagement in public health institutions. Managerially, leaders should translate support into visible practices, such as fair workload allocation, appreciation, psychological safety, feedback, career development, and adequate facilities, so employees feel valued and remain engaged in public health services.

The Effect of Leader–Member Exchange (LMX) on the Performance.

The positive relationship between Leader-Member Exchange (LMX) and the performance of public health workers in Medan can be understood through LMX theory, which explains that the quality of reciprocal relationships between leaders and subordinates shapes employee attitudes and work behavior. When employees experience trust, respect, open communication, and socioemotional support from their leaders, they are more likely to feel psychologically secure, receive clearer work guidance, and show stronger responsibility in delivering public services. Thus, LMX improves performance because high-quality leader-member relationships provide employees with access to information, recognition, feedback, and support needed to complete work effectively. This finding is consistent with Che et al. (2021), who found that LMX improves task performance among hospital knowledge workers through organisational citizenship behaviour. Santalla-Banderali & Alvarado (2022) also showed that LMX quality strengthens communication satisfaction and work engagement, which in turn support self-evaluated work performance. In addition, Khan et al. (2022) demonstrated that LMX and trust serve as important relational mechanisms linking leadership to individual performance in the health sector. However, previous studies also show that the effect of LMX on work outcomes is not always direct. Mitchell et al. (2024) found that LMX quality and differentiation influence citizenship behaviour and counterproductive work behaviour in healthcare teams, while Saygili et al. (2025) emphasised that LMX can reduce turnover intention among healthcare employees. These findings indicate that LMX affects performance through multiple pathways, including trust, communication, engagement, citizenship behaviour, and retention. Theoretically, this study strengthens LMX theory by confirming its relevance in public health institutions. Managerially,

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



leaders should improve the quality of relationships through fair treatment, regular feedback, participative communication, recognition, and emotional support, thereby motivating employees to provide reliable, high-quality health services.

The Effect of Leader–Member Exchange (LMX) on Work Engagement.

The relationship between Leader-Member Exchange (LMX) and work engagement among public health workers in Medan can be explained by LMX and social exchange theories. High-quality leader-member relationships create trust, respect, open communication, and mutual obligation, which encourage employees to respond with stronger energy, dedication, and involvement in their work. In public health institutions, this relationship becomes important because employees often face high service demands, emotional pressure, and the need for fast coordination. When leaders provide guidance, recognition, autonomy, and socioemotional support, employees are more likely to feel psychologically safe and motivated to invest themselves fully in patient-oriented services. This finding is in line with Aggarwal et al. (2020), who found that LMX increases work engagement directly and indirectly through psychological empowerment. It also supports Santalla-Banderali & Alvarado (2022), who showed that LMX improves work engagement through communication satisfaction, and Ji et al. (2023), who found that LMX strengthens flow at work among medical workers through job crafting. Broader meta-analytic evidence by Li et al. (2021) confirms that leadership is positively associated with employee engagement, although the strength of this relationship may vary across national and organizational contexts. However, prior findings are not entirely uniform. Al Otaibi et al. (2023) found that empowering leadership did not directly affect nurses' work engagement, but operated through psychological empowerment and affective commitment. This suggests that leadership relationships may influence engagement directly or through motivational and psychological mechanisms. Theoretically, this study strengthens LMX theory by confirming that relational leadership is a relevant antecedent of work engagement in public health institutions. Managerially, health service leaders should build fair, supportive, and participative relationships with employees through feedback, recognition, autonomy, and emotional support to maintain engagement and service quality.

The Effect of Work Engagement on Performance.

The positive influence of work engagement on the performance of public health workers in Medan can be explained through Job Demands-Resources theory. This theory views engagement as a motivational state that translates job resources, personal resources, and meaningful work experiences into better work outcomes (Bakker et al., 2023). Engaged employees show vigor, dedication, and absorption; therefore, they are more willing to invest energy, maintain service focus, solve work problems, and perform beyond minimum requirements. In health services, these behaviors are important because performance is reflected not only in task completion, but also in responsiveness, accuracy, empathy, teamwork, and service continuity. This finding is consistent with (Corbeanu & Iliescu, 2023), who confirmed that work engagement is positively related to task and contextual performance. It also supports Al Badi et al. (2023), who found that

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



engaged nurses in the public healthcare sector demonstrated better job performance when supported by appropriate job characteristics and organizational factors. Similar evidence was reported by (Bernales-Turpo et al., 2022), who showed that engagement mediates the effects of burnout, professional self-efficacy, and life satisfaction on healthcare worker performance. In primary healthcare, Szilvassy & Širok (2022) emphasized that engagement is crucial for quality care and service sustainability. However, prior findings are not entirely uniform. Şahin & Yozgat (2024) showed that engagement mediates only certain forms of work-family conflict and performance relationships, while Mazzetti et al. (2023) found that engagement outcomes vary across occupational and cultural contexts. Theoretically, this study strengthens the JD-R perspective by confirming engagement as a key motivational mechanism in public health institutions. Managerially, leaders should improve engagement through manageable workloads, adequate resources, fair recognition, supervisor support, career development, and psychological safety, because engaged employees are more likely to deliver consistent and high-quality health services.

The Effect of Perceived Organizational Support (POS) on Performance Through Work Engagement.

The mediating role of work engagement in the relationship between POS and employee performance can be explained through the integration of organizational support theory and Job Demands-Resources theory. Organizational support theory argues that employees who perceive organizational concern, fairness, and appreciation tend to reciprocate through positive attitudes and stronger work contribution (Eisenberger et al., 2020). Meanwhile, Job Demands-Resources theory positions organizational support as a job resource that stimulates engagement and enables employees to convert available resources into better performance (Bakker et al., 2023). Therefore, POS does not only influence performance directly, but also works through employees' psychological attachment to their work. This finding is consistent with Imran et al. (2020), who showed that POS increases work engagement through thriving and flourishing, and with Ashfaq et al. (2023), who found that POS strengthens engagement among health sector workers through well-being and resilience. It also complements Şanlıöz et al. (2023), who confirmed the interconnected role of POS, work engagement, and job performance in healthcare settings. Corbeanu & Iliescu (2023) further demonstrated that engaged employees tend to show better task and contextual performance. However, prior studies show that the POS-performance relationship is not always direct. Rubel et al., (2021) found that POS functions as a mediating mechanism between high-performance work practices and medical professionals' outcomes, suggesting that organizational support may operate through different psychological pathways depending on context. Theoretically, this study contributes by clarifying work engagement as a motivational mechanism linking POS to employee performance in public health institutions. Managerially, institutions should translate support into fair workload distribution, recognition, responsive supervision, psychological safety, career development, and adequate work facilities to strengthen engagement and improve service performance.

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



The Effect of Leader–Member Exchange (LMX) on Performance Through Work Engagement.

The mediating role of work engagement in the relationship between Leader-Member Exchange (LMX) and employee performance can be explained through the integration of LMX theory and Job Demands-Resources theory. LMX theory emphasizes that high-quality relationships between leaders and employees create trust, respect, support, and reciprocal obligation. These relational resources make employees feel valued and psychologically secure, which encourages them to become more energetic, dedicated, and absorbed in their work. From the Job Demands-Resources perspective, supportive leadership functions as a job resource that stimulates engagement and helps employees transform relational support into better service performance (Bakker et al., 2023). This finding is consistent with Jufrizen et al. (2024), who found that work engagement mediates the relationship between LMX and employee performance. Santalla-Banderali and Alvarado (2022) also showed that LMX quality improves work performance through communication satisfaction and work engagement. Similarly, Aggarwal et al. (2020) demonstrated that high-quality LMX increases work engagement through psychological empowerment, while Che et al. (2021) found that LMX enhances task performance among hospital knowledge workers through organizational citizenship behavior. However, prior studies also indicate that the LMX-performance relationship does not always occur through a single pathway. Mitchell et al. (2024) emphasized that LMX quality and differentiation can influence both citizenship behavior and counterproductive behavior in healthcare teams. This suggests that the effect of LMX on performance depends on whether leadership relationships generate engagement, fairness, and positive work behavior. Theoretically, this study strengthens LMX theory by confirming work engagement as a motivational mechanism linking leader-member relationships to performance. Managerially, leaders should build supportive, fair, and communicative relationships through feedback, recognition, autonomy, and emotional support to maintain employee engagement and improve public health service performance.

CONCLUSION

Based on the results of the study, it can be concluded that Perceived Organizational Support (POS), Leader-Member Exchange (LMX), and work engagement significantly affect the performance of public health workers in Medan. POS contributes positively to work engagement, which further improves performance. Similarly, the quality of the leader-member relationship through LMX was shown to influence work engagement and health worker performance. Furthermore, work engagement acts as a mediator that strengthens the influence of POS and LMX on individual performance. These findings confirm the importance of organizational support and quality leader-member relationships in shaping a work environment conducive to improved health worker performance.

This study provides important contributions by explaining how Perceived Organizational Support (POS), Leader-Member Exchange (LMX), and work engagement jointly shape the performance of public health workers in Medan. The main contribution of this research lies in

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



demonstrating that work engagement is not only an outcome of organizational support and leader-member relationships, but also a psychological mechanism that connects POS and LMX with employee performance. Theoretically, this study strengthens Organizational Support Theory, LMX Theory, and the Job Demands-Resources perspective by confirming that organizational resources and relational leadership can increase employee engagement and encourage better individual performance in public health institutions.

Practically, the findings suggest that public health organizations should not focus only on technical competence, but also on creating a supportive and motivating work environment. Managers and unit leaders are encouraged to provide fair workload distribution, adequate work facilities, recognition, emotional support, career development opportunities, and responsive supervision. In addition, leaders need to build open, respectful, and communicative relationships with employees so that staff feel trusted, valued, and more engaged in delivering quality public health services. However, this study has several limitations. First, the research was conducted only among public health workers in Medan, so the findings may not fully represent other regions or types of health institutions. Second, the study used a quantitative cross-sectional design, which limits the ability to explain causal relationships over time. Third, the data were collected through self-reported questionnaires, which may create response bias.

Future research is recommended to involve broader samples from different cities, provinces, or health service institutions. Further studies may also use longitudinal or mixed-method approaches and include other variables such as job satisfaction, organizational commitment, psychological empowerment, burnout, and service quality to provide a more comprehensive understanding of employee performance.

REFERENCES

- Aggarwal, A., Chand, P. K., Jhamb, D., & Mittal, A. (2020). Leader–Member Exchange, Work Engagement, and Psychological Withdrawal Behavior: The Mediating Role of Psychological Empowerment. *Frontiers in Psychology*, 11(March), 1–17. <https://doi.org/10.3389/fpsyg.2020.00423>
- Al Badi, F. M., Cherian, J., Farouk, S., & Al Nahyan, M. (2023). Work engagement and job performance among nurses in the public healthcare sector in the United Arab Emirates. *Journal of Asia Business Studies*, 17(5), 1019–1041. <https://doi.org/10.1108/JABS-06-2022-0216>
- Al Otaibi, S. M., Amin, M., Winterton, J., Bolt, E. E. T., & Cafferkey, K. (2023). The role of empowering leadership and psychological empowerment on nurses' work engagement and affective commitment. *International Journal of Organizational Analysis*, 31(6), 2536–2560. <https://doi.org/10.1108/IJOA-11-2021-3049>
- Aldabbas, H., Pinnington, A., Lahrech, A., & Blaique, L. (2025). Extrinsic rewards for employee creativity? The role of perceived organisational support, work engagement and intrinsic motivation. *International Journal of Innovation Science*, 17(2), 237–260. <https://doi.org/10.1108/IJIS-08-2022-0165>
- Ashfaq, F., Abid, G., Ilyas, S., & Binte Mansoor, K. (2023). Perceived organisational support

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



- and work engagement among health sector workers during the COVID-19 pandemic: A multicentre, time-lagged, cross-sectional study among clinical hospital staff in Pakistan. *BMJ Open*, 13(6). <https://doi.org/10.1136/bmjopen-2022-065678>
- Awan, S. H., Habib, N., Shoaib Akhtar, C., & Naveed, S. (2020). Effectiveness of Performance Management System for Employee Performance Through Engagement. *SAGE Open*, 10(4), 1–15. <https://doi.org/10.1177/2158244020969383>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. (2023). Annual Review of Organizational Psychology and Organizational Behavior Job Demands-Resources Theory: Ten Years Later. *Annu. Rev. Organ. Psychol. Organ. Behav.* 2023, 10, 25–53. <https://doi.org/10.1146/annurev-orgpsych-120920-053933>
- Baş, M., Ayaz, M. Q., & Ağin, K. (2024). The mediating role of knowledge sharing in the relationship between leader-member exchange and work integration. *Ekonomski Vjesnik*, 37(2), 209–221. <https://doi.org/10.51680/ev.37.2.1>
- Bennouna, A., Boughaba, A., Mouda, M., & Djabou, S. (2023). Examining the mediating effect of job satisfaction on the relationship between leader-member exchange and safety behavior among Algerian healthcare workers. *Leadership in Health Services*, 37(1), 112–129. <https://doi.org/10.1108/LHS-05-2023-0031>
- Bernales-Turpo, D., Quispe-Velasquez, R., Flores-Ticona, D., Saintila, J., Ruiz Mamani, P. G., Huancahuire-Vega, S., Morales-García, M., & Morales-García, W. C. (2022). Burnout, Professional Self-Efficacy, and Life Satisfaction as Predictors of Job Performance in Health Care Workers: The Mediating Role of Work Engagement. *Journal of Primary Care and Community Health*, 13. <https://doi.org/10.1177/21501319221101845>
- Bonaiuto, F., Fantinelli, S., Milani, A., Cortini, M., Vitiello, M. C., & Bonaiuto, M. (2022). Perceived organizational support and work engagement: the role of psychosocial variables. *Journal of Workplace Learning*, 34(5), 418–436. <https://doi.org/10.1108/JWL-11-2021-0140>
- Borst, R. T., Kruyen, P. M., Lako, C. J., & de Vries, M. S. (2020). The Attitudinal, Behavioral, and Performance Outcomes of Work Engagement: A Comparative Meta-Analysis Across the Public, Semipublic, and Private Sector. *Review of Public Personnel Administration*, 40(4), 613–640. <https://doi.org/10.1177/0734371X19840399>
- Cabrera, W., & Estacio, D. (2022). Job Attitude as a Factor on Employees Performance. *International Journal of Economics Development Research (IJEDR)*, 3(1), 13–35. <https://doi.org/10.37385/ijedr.v3i1.254>
- Caesens, G., & Stinglhamber, F. (2020). Toward a More Nuanced View on Organizational Support Theory. *Frontiers in Psychology*, 11(March), 10–12. <https://doi.org/10.3389/fpsyg.2020.00476>
- Chatzittofis, A., Constantinidou, A., Artemiadis, A., Michailidou, K., & Karanikola, M. N. K. (2021). The Role of Perceived Organizational Support in Mental Health of Healthcare Workers During the COVID-19 Pandemic: A Cross-Sectional Study. *Frontiers in Psychiatry*, 12(November), 1–6. <https://doi.org/10.3389/fpsyg.2021.707293>
- Che, X., Guo, Z., & Chen, Q. (2021). The Relationship Between K-Workers' Leader-Member

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



- Exchange, Organizational Citizenship Behavior and Task Performance—Evidence From Chinese Hospitals. *Frontiers in Psychology*, 12(July), 1–12. <https://doi.org/10.3389/fpsyg.2021.625584>
- Cheng, L., Wei, W., Zhang, J., Yao, Y., Zhang, Y., & Zhu, W. (2024). The association of leader-member exchange and team-member exchange with nurses' innovative behaviours: A cross-sectional study. *Journal of Advanced Nursing*, 80(7), 2813–2821. <https://doi.org/10.1111/jan.16121>
- Cho, E. (2020). A comprehensive review of so-called Cronbach's alpha. *Journal of Product Research*, 58(13), 81–122. <https://doi.org/10.1108/ijwbr-03-2022-0011>
- Corbeanu, A., & Iliescu, D. (2023). The Link between Work Engagement and Job Performance: A Meta-Analysis. *Journal of Personnel Psychology*, 22(3), 111–122. <https://doi.org/10.1027/1866-5888/a000316>
- Dhynianti, L., Darmawan, E. S., Nadjib, M., & Soewondo, P. (2025). Readiness of community health centers to implement integrated primary health care services in Jakarta, Indonesia: a 2024 study. *Journal of Integrated Care*, 33(3), 260–271. <https://doi.org/10.1108/JICA-11-2024-0065>
- Du, B., He, B., Zhang, L., Luo, N., Yu, X., & Wang, A. (2022). From subordinate moqi to work engagement: The role of leader-member exchange in the sustainability context. *Sustainability*, 15(1), 170. <https://doi.org/10.3390/su15010170>
- Eisenberger, R., Rhoades Shanock, L., & Wen, X. (2020). Perceived Organizational Support: Why Caring about Employees Counts. *Annual Review of Organizational Psychology and Organizational Behavior*, 7, 101–124. <https://doi.org/10.1146/annurev-orgpsych-012119-044917>
- Elrehail, H., Harazneh, I., Abuhjeeleh, M., Alzghoul, A., Alnajdawi, S., & Ibrahim, H. M. H. (2020). Employee satisfaction, human resource management practices and competitive advantage: The case of Northern Cyprus. *European Journal of Management and Business Economics*, 29(2), 125–149. <https://doi.org/10.1108/EJMBE-01-2019-0001>
- Eshete, B. A., & Kassahun, T. (2025). The mediating role of employees engagement in the relationship between adaptive leadership and service quality in the health sector. *Leadership in Health Services*, 38(5), 82–100. <https://doi.org/10.1108/LHS-03-2025-0056>
- Garengo, P., Sardi, A., & Nudurupati, S. S. (2022). Human resource management (HRM) in the performance measurement and management (PMM) domain: a bibliometric review. *International Journal of Productivity and Performance Management*, 71(7), 3056–3077. <https://doi.org/10.1108/IJPPM-04-2020-0177>
- Gün, İ., Söyük, S., & Özsari, S. H. (2021). Effects of Job Satisfaction, Affective Commitment, and Organizational Support on Job Performance and Turnover Intention in Healthcare Workers. *Archives of Health Science and Research*, 8(2), 89–95. <https://doi.org/10.5152/ArcHealthSciRes.2021.21044>
- Hair Jr., J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110. <https://doi.org/10.1016/j.jbusres.2019.11.069>

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



- Hair, J F, Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). SAGE Publications.
- Hair, Joseph F, Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2024). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3 (ed.)). Sage Publications.
- Hasan, A. A., Ahmad, S. Z., & Osman, A. (2023). Transformational leadership and work engagement as mediators on nurses' job performance in healthcare clinics: work environment as a moderator. *Leadership in Health Services*, 36(4), 537–561. <https://doi.org/10.1108/LHS-10-2022-0097>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2023). Assessing discriminant validity in variance-based structural equation modeling: Updated guidelines. *Journal of the Academy of Marketing Science*, 43(1).
- Imran, M. Y., Elahi, N. S., Abid, G., Ashfaq, F., & Ilyas, S. (2020). Impact of perceived organizational support on work engagement: Mediating mechanism of thriving and flourishing. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 1–18. <https://doi.org/10.3390/JOITMC6030082>
- Jankelová, N., Joniaková, Z., & Skorková, Z. (2021). Perceived organizational support and work engagement of first-line managers in healthcare – The mediation role of feedback seeking behavior. *Journal of Multidisciplinary Healthcare*, 14(July), 3109–3123. <https://doi.org/10.2147/JMDH.S326563>
- Jeong, Y., & Kim, M. (2022). Effects of perceived organizational support and perceived organizational politics on organizational performance: Mediating role of differential treatment. *Asia Pacific Management Review*, 27(3), 190–199. <https://doi.org/10.1016/j.apmr.2021.08.002>
- Ji, H., Zhao, X., & Dang, J. (2023). Relationship between leadership-member exchange (LMX) and flow at work among medical workers during the COVID-19: the mediating role of job crafting. *BMC Psychology*, 11(1), 162. <https://doi.org/10.1186/s40359-023-01194-3>
- Jufrizen, J., Harahap, D. S., & Khair, H. (2024). Leader-Member Exchange and Employee Performance: Mediating Roles of Work Engagement and Job Satisfaction. *Journal of Economics, Business, & Accountancy Ventura*, 26(3). <https://doi.org/10.14414/jebav.v26i3.3591>
- Juliansyah, R., Aqid, B. M., Salsabila, A. P., & Nurfiyanti, K. (2024). Implementation of EMR System in Indonesian Health Facilities: Benefits and Constraints. *Journal of Indonesian Health Policy and Administration*, 10(1), 31–38. <https://doi.org/10.7454/ihpa.v10i1.1140>
- Kananu, K. M., Ambrose, K., & Joel, T. (2020). The effect of employee engagement on the relationship between leader-member exchange and innovative work behaviour in Kenya. *Journal of Business and Economic Development*, 5(3), 113–120. <https://doi.org/10.11648/j.jbed.20200503.11>
- Kapil, K., & Rastogi, R. (2020). The relationship between leader-member exchange, work engagement and organizational citizenship behaviour. *Journal of Indian Business Research*, 12(2), 191–214. <https://doi.org/10.1108/JIBR-08-2018-0202>
- Khan, H. G. A., Khan, M. A., Ali, M. I., Salem, S., Rashid, S., & Zahur, H. (2022). Does

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



- authentic leadership influences performance of individuals in presence of trust and leader member exchange: an evidence from health care sector. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2119539>
- Kim, J. H., & Han, J. W. (2022). Relationship of Hospital Nurse LMX, Emotional Immersion, and Turnover Intention. *Journal for ReAttach Therapy and Developmental Diversities*, 5(SpecialIssue2), 433–442.
- Kirilmaz, S. K. (2022). Mediating Role of Positive Psychological Capital in The Effect of Perceived Organizational Support on Work Engagement. *Journal of Organizational Behavior Research*, 7(1), 72–85. <https://doi.org/10.51847/xNeqENPv4Y>
- Li, P., Sun, J.-M., Taris, T. W., Xing, L., & Peeters, M. C. W. (2021). Country differences in the relationship between leadership and employee engagement: A meta-analysis. *The Leadership Quarterly*, 32(1), 101458. <https://doi.org/10.1016/j.leaqua.2020.101458>
- Li, Q., Mohamed, R., Mahomed, A., & Khan, H. (2022). The Effect of Perceived Organizational Support and Employee Care on Turnover Intention and Work Engagement: A Mediated Moderation Model Using Age in the Post Pandemic Period. *Sustainability (Switzerland)*, 14(15). <https://doi.org/10.3390/su14159125>
- Limato, R., Tumbelaka, P., Ahmed, R., Nasir, S., Syafruddin, D., Ormel, H., & Kok, M. (2023). What factors do make quality improvement work in primary health care? Experiences of maternal health quality improvement teams in three Puskesmas in Indonesia. *International Journal of Environmental Research and Public Health*, 20(1), 44. <https://doi.org/10.1371/journal.pone.0226804>
- Liu, H., Song, Z., Xu, Y., Xu, X., & Li, J. (2023). Exploring Explanatory Mechanisms of Adjustment-Specific Resources Underlying the Relationship between Leader–Member Exchange and Work Engagement: A Lens of Conservation of Resources Theory. *Sustainability (Switzerland)*, 15(2). <https://doi.org/10.3390/su15021561>
- Liu, X., Jing, Y., & Sheng, Y. (2023). Work from home or office during the COVID-19 pandemic: The different chain mediation models of perceived organizational support to the job performance. *Frontiers in Public Health*, 11(3). <https://doi.org/10.3389/fpubh.2023.1139013>
- Ma, H., Zhu, X., Huang, J., Zhang, S., Tan, J., & Luo, Y. (2023). Assessing the effects of organizational support, psychological capital, organizational identification on job performance among nurses: a structural equation modeling approach. *BMC Health Services Research*, 23(1), 806. <https://doi.org/10.1186/s12913-023-09705-z>
- Maan, A. T., Abid, G., Butt, T. H., Ashfaq, F., & Ahmed, S. (2020). Perceived organizational support and job satisfaction: a moderated mediation model of proactive personality and psychological empowerment. *Future Business Journal*, 6(1), 1–10. <https://doi.org/10.1186/s43093-020-00027-8>
- Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2023). Work Engagement: A Meta-Analysis Using the Job Demands-Resources Model. *Psychological Reports*, 126(3), 1069–1107. <https://doi.org/10.1177/003329412111051988>
- Mitchell, R., Gu, J., & Boyle, B. (2024). The impact of leader member exchange quality and

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



- differentiation on counterproductive and citizenship behavior in health care teams. *Health Care Management Review*, 49(2), 86–93. <https://doi.org/10.1097/HMR.0000000000000394>
- Muharram, F. R., Sulistya, H. A., Swannjo, J. B., Firmansyah, F. F., Rizal, M. M., Izza, A., Isfandiari, M. A., Ariningtyas, N. D., & Romdhoni, A. C. (2024). Adequacy and Distribution of the Health Workforce in Indonesia. *WHO South-East Asia Journal of Public Health*, 13(2), 45–55. https://doi.org/10.4103/WHO-SEAJPH.WHO-SEAJPH_28_24
- Mulligan, R., Ramos, J., Martín, P., & Zornoza, A. (2021). Inspiring innovation: The effects of leader-member exchange (lmx) on innovative behavior as mediated by mindfulness and work engagement. *Sustainability (Switzerland)*, 13(10), 1–18. <https://doi.org/10.3390/su13105409>
- Musenze, I. A., Mayende, T. S., Kalenzi, A., & Namono, R. (2021). Perceived organizational support, self-efficacy and work engagement: testing for the interaction effects. *Journal of Economic and Administrative Sciences*, 38(2), 201–228. <https://doi.org/10.1108/JEAS-08-2020-0141>
- Muslih, M., & Hardani, R. T. S. (2022). Effect of Work Environment And Workload on Employee Performance. *International Journal of Economics, Social Science, Entrepreneurship and Technology (IJESET)*, 1(1), 23–35.
- Muslih, M., & Pratama, M. D. (2022). Kepuasan Kerja sebagai Variabel Intervening pada pengaruh Kepemimpinan Terhadap Kinerja Pegawai. *Inovatif: Jurnal Ekonomi, Manajemen, Akuntansi, Bisnis Digital Dan Kewirusahaan*, 1(1), 16–28.
- Ni, Y., Wu, D., Bao, Y., Li, J., & You, G. (2023). The mediating role of psychological needs on the relationship between perceived organizational support and work engagement. *International Nursing Review*, 70(2), 204–210. <https://doi.org/10.1111/inr.12797>
- Ortiz-Isabeles, C. J., & García-Avitia, C. A. (2021). Relationship between perceived organizational support and work engagement in Mexican workers. *Psicogente*, 24(45). <https://doi.org/10.17081/psico.24.45.4084>
- Praveen, S., Parmar, J., Chandio, N., & Arora, A. (2021). A Systematic Review of Cross-Cultural Adaptation and Psychometric Properties of Oral Health Literacy Tools. *International Journal of Environmental Research and Public Health*, 18(19), 10422. <https://doi.org/10.3390/ijerph181910422>
- Rubel, M. R. B., Hung Kee, D. M., & Rimi, N. N. (2021). High-performance work practices and medical professionals' work outcomes: the mediating effect of perceived organizational support. *Journal of Advances in Management Research*, 18(3), 368–391. <https://doi.org/10.1108/JAMR-05-2020-0076>
- Saadeh, I. M., & Suifan, T. S. (2019). Job stress and organizational commitment in hospitals: The mediating role of perceived organizational support. *International Journal of Organizational Analysis*, 28(1), 226–242. <https://doi.org/10.1108/IJOA-11-2018-1597>
- Sadovyy, M., Sánchez-Gómez, M., & Bresó, E. (2021). COVID-19: How the stress generated by the pandemic may affect work performance through the moderating role of emotional intelligence. *Personality and Individual Differences*, 180, 110986. <https://doi.org/10.1016/j.paid.2021.110986>

International Journal of Business Economics (IJBE)

Jurnal homepage: <http://jurnal.umsu.ac.id/index.php/ijbe>

E-ISSN 2686-472X



- Şahin, S., & Yozgat, U. (2024). Work–family conflict and job performance: mediating role of work engagement in healthcare employees. *Journal of Management & Organization*, 30(4), 931–950. <https://doi.org/10.1017/jmo.2021.13>
- Şanlıöz, E., Sağbaş, M., & Sürücü, L. (2023). The Mediating Role of Perceived Organizational Support in the Impact of Work Engagement on Job Performance. *Hospital Topics*, 101(4), 305–318. <https://doi.org/10.1080/00185868.2022.2049024>
- Santalla-Banderali, Z., & Alvarado, J. M. (2022). Incidence of Leader–Member Exchange Quality, Communication Satisfaction, and Employee Work Engagement on Self-Evaluated Work Performance. *International Journal of Environmental Research and Public Health*, 19(14), 1–22. <https://doi.org/10.3390/ijerph19148761>
- Saygili, M., Hikmet, N., & Yorgancioglu Tarcan, G. (2025). The effect of leader-member exchange on turnover intention in healthcare employees. *Journal of Health Organization and Management*. <https://doi.org/10.1108/JHOM-09-2024-0394>
- Schuh, S. C., Cai, Y., Kaluza, A. J., Steffens, N. K., David, E. M., & Haslam, S. A. (2021). Do leaders condone unethical pro-organizational employee behaviors? The complex interplay between leader organizational identification and moral disengagement. *Human Resource Management*, 60(6), 969–989. <https://doi.org/10.1002/hrm.22060>
- Song, R., Hao, Y., Li, J., Yang, X., Liu, J., & Chen, L. (2023). Mediating Effect of Perceived Organizational Support on the Resilience and Mental Health of ICU Nurses. *Journal of Clinical and Nursing Research*, 7(4), 69–78. <https://doi.org/10.26689/jcnr.v7i4.5018>
- Szilvassy, P., & Širok, K. (2022). Importance of work engagement in primary healthcare. *BMC Health Services Research*, 22(1), 1–11. <https://doi.org/10.1186/s12913-022-08402-7>
- Tóth-Király, I., Gillet, N., Inhaber, J., Houle, S. A., Vandenberghe, C., & Morin, A. J. S. (2023). Job engagement trajectories: Their associations with leader–member exchange and their implications for employees. *Journal of Occupational and Organizational Psychology*, 96(3), 545–574. <https://doi.org/10.1111/joop.12433>
- Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2020). Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science*, 48(1), 20–44. <https://doi.org/10.1007/s11747-019-00656-1>
- Wagner, B., & Koob, C. (2022). The relationship between leader-member exchange and work engagement in social work: A mediation analysis of job resources. *Heliyon*, 8(1), e08793. <https://doi.org/10.1016/j.heliyon.2022.e08793>