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The influence of adversity quotient on nurses' job performance during the COVID-19 Pandemic at Batam City Health Centers

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Abstract
Purpose: This study explores the effect of Adversity Quotient (AQ) on nurse job performance, with motivation as a mediating factor, especially during the COVID-19 crisis.
Methodology: Employing a quantitative, explanatory research design, the study collected data from 137 nurses at community health centers (Puskesmas) in Batam, Indonesia. Data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to examine both direct and indirect effects.
Results: AQ significantly boosts motivation but does not directly affect performance. Motivation has a strong positive impact on performance and fully mediates the AQ–performance link, showing that resilience must be channeled through motivation to influence behavior.
Conclusions: The research concludes that AQ alone is insufficient to enhance performance it requires the presence of motivation to translate resilience into tangible outcomes. This highlights the importance of fostering motivational support in healthcare environments
Limitations: The study's generalizability is limited to nurses in Batam and is constrained by its cross-sectional design and self-reported data, which may introduce bias.
Contribution: This study strengthens the integration of adversity quotient theory with self-determination theory by validating the mediating role of intrinsic motivation. It contributes a psychological model where motivation serves as a catalyst for transforming resilience into effective job behavior.
Keywords: Adversity Quotient, COVID-19, Job Performance, Motivation
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1. Introduction

The COVID-19 pandemic has placed immense pressure on healthcare systems, putting nurses on the frontline, working under challenging conditions, with limited protective equipment, high exposure risk, and emotional exhaustion. In Puskesmas (community health centers), they continued to provide essential services despite these difficulties, raising questions about how to maintain their performance and mental well-being. One important psychological factor is the Adversity Quotient (AQ). AQ is a person's capacity to face and overcome challenges while staying focused on the goals. Lubis (2018) showed that AQ affects both motivation and performance among taxi drivers in stressful work environments, implying its importance in maintaining behavior under pressure. In healthcare, studies suggest that resilience, which overlaps with AQ, is crucial for success. For example, Alameddine, Clinton, Bou-Karroum, Richa, and Doumit (2021) found that nurses with stronger resilience experienced less burnout and better professional well-being. A systematic review by Saxena and

Rathore (2025) also confirmed that AQ was a decisive factor for mental health and quality of life among healthcare professionals during the pandemic. However, a high AQ alone may not guarantee good performance. Motivation plays a mediating role by translating psychological strength into tangible job outcomes. Azahra and Isa (2021) demonstrated that motivation mediates the relationship between AQ and performance in small and medium enterprises, meaning that individuals with strong AQ are more motivated and thereby perform better.

In nursing, job performance involves not just clinical skills but also emotional engagement, empathy, and teamwork (Yudiyawaties, Anwar, Yuliansyah, & Jarkawi, 2022). A recent BMC Nursing study found that work engagement acted as a mediator between psychological resilience and team performance in clinical nurses, highlighting the chain of personal resources → motivation/engagement → outcomes (Shen et al., 2024). Therefore, this study aimed to explore the effect of adversity on nurses' job performance during the COVID-19 pandemic. This examination can offer meaningful insight into how psychological strengths can support healthcare workers in delivering high-quality care under extremely challenging conditions (Zulkarnain, Said, & Amitasari, 2022).

In addition to AQ's influence on motivation and performance, several studies in nursing and healthcare contexts offer deeper insights into how AQ strengthens personal adaptation, builds professional identity, and reduces stress, thus supporting performance during critical periods such as the pandemic. A recent BMC Nursing study by Luo et al. (2025) demonstrated that AQ has a strong positive correlation with professional identity ($r = 0.59$, $p < 0.01$), and that professional identity acts as a partial mediator between AQ and job stress (β AQ stress = –0.31, after mediation) (Luo et al., 2025). In other words, nurses with high AQ tend to have a strong professional identity, which helps them perceive challenges as part of their calling rather than as psychological burdens. Meanwhile, Saxena and Rathore (2025) emphasized AQ as a major determinant of mental health, burnout, and professional well-being across health- and care-related professions. This finding strengthens the argument that AQ is not merely an individual mental asset but a critical safeguard for long-term well-being, particularly in high-pressure clinical environments.

A longitudinal study among nursing students and interns by Gou, Chen, Yang, Li, and Wu (2024) used latent profile analysis and identified three AQ-based subgroups: high, moderate, and low AQ. Interns in the high-AQ group demonstrated significantly higher psychological capital, adaptive coping styles, and better professional adaptability ($p < 0.05$) (Song & Woo, 2015). This supports the conceptual model of personal resources → coping/motivation → performance. Thus, the AQ is a key entry point for psychological resilience interventions during clinical transitions. In the context of COVID-19, resilience, of which AQ is a core component, proved to be crucial. According to Jo et al. (2021), a study on ICU nurses found that higher resilience was associated with lower levels of emotional exhaustion and anxiety during the pandemic. Similarly Yu, Chu, Yeh, and Fernandez (2024), demonstrated that both online and in-person resilience interventions improved short-term coping ability in clinical nursing environments, with the strongest impact seen four to five months post-training.

Ambrose et al. (2024) described resilience in U.S. healthcare teams during the pandemic as a result of team cohesion, solidarity, and altruistic behavior. Strong interpersonal bonds improve procedural adaptation and clinical care quality, even under high pressure and with limited resources. This broadens the concept from individual AQ to collective AQ through team resilience, suggesting that team performance in Puskesmas may also benefit from a collective psychological strength. Furthermore, Xu, Li, Jiang, Fang, and Yang (2024) studied nurses in hemodialysis units and found that AQ was positively associated with professional pride ($r \approx 0.3–0.4$) and grit (long-term perseverance). In linear regression models, AQ and grit were the strongest predictors of professional pride ($R^2 \approx 0.76$, $p < 0.001$). As professional pride is a key driver of intrinsic motivation in nursing, AQ is positioned as a crucial component in shaping resilient motivation, resulting in sustained performance even under prolonged stress. Therefore, strengthening AQ among Puskesmas nurses during crises through resilience training, professional identity workshops, peer support, and evidence-based positive coping interventions may be effective strategies for maintaining behavioral performance, quality of care, and psychological well-being. Empirical studies such as Luo et al. (2025) and Xu et al. (2024) provide a solid foundation

showing that enhancing AQ not only boosts mental endurance but also directly impacts job stress reduction, motivation, and professional pride, all of which are linked to improved field performance.

2. Literature review

2.1 Adversity Quotient

The Adversity Quotient (AQ) is a psychological construct introduced by Stoltz (1999) to describe an individual's ability to withstand adversity, recover from setbacks, and continue striving toward goals. In organizational behavior and occupational psychology, AQ has been increasingly studied as a factor influencing employees' capacity to cope with challenges and maintain productivity in dynamic and high-stress environments. In healthcare, AQ has drawn attention as a key element in understanding resilience among nurses, particularly those working under extreme conditions, such as the COVID-19 pandemic. Lubis (2018) reported that AQ significantly predicted employee motivation and job performance among drivers operating under high-pressure conditions. In the clinical context, Li et al. (2022) found that ICU nurses with higher AQ levels were more engaged and better able to manage their organizational stress. AQ also mediated the impact of organizational climate on work engagement, especially when combined with high self-efficacy. Similarly, Luo et al. (2025) emphasized the importance of AQ in reducing work-related stress and reinforcing nurses' professional identity, suggesting that AQ influences not only coping abilities but also how professionals perceive and relate to their work.

AQ is also conceptually linked to resilience and self-efficacy. Gou et al. (2024) demonstrated that nursing interns with stronger AQ profiles demonstrated enhanced problem-solving and coping strategies, leading to more effective adjustments in clinical settings. This underscores the AQ's contribution to adaptive competence and ongoing professional development. Importantly, AQ is not fixed and can be strengthened through structured interventions (Hardana, Nasution, Damisa, Lestari, & Zein, 2024). Educational programs focusing on adversity management have been shown to improve nurses' coping capabilities and emotional regulation, underscoring AQ's trainable nature of AQ. Recent findings have also demonstrated AQ's predictive power of AQ beyond individual coping. For example, Kooktapeh, Dustmohammadloo, Mehrdoost, and Fatehi (2023) synthesized 30 studies and concluded that nurses with higher psychological resources, such as AQ, experienced lower turnover intention and greater intention to stay, particularly during crisis periods. Similarly, Saxena and Rathore (2025) conducted a large-scale study across Southeast Asia and confirmed that AQ plays a protective role against emotional exhaustion and depersonalization, two major components of burnout. Thus, AQ serves as both a foundation for psychological stability and a catalyst for sustained professional behavior. In this study, AQ is expected to directly support nurses' performance under stressful conditions (Elia & Marselina, 2023).

2.2 Motivation

Motivation encompasses both intrinsic desires, such as personal growth and purpose, and extrinsic incentives, such as recognition and support. For nurses, motivation fuels engagement in clinical duties and perseverance under demanding conditions. A study among frontline nurses in China revealed that perceived organizational support, including leadership visibility and resource availability, significantly bolstered affective commitment and work engagement (Shan, Zhou, Zhang, Chen, & Chen, 2023). This emphasizes the necessity of social and institutional support, alongside individual motivation. Studies have consistently shown that the AQ influences motivation. Individuals who are more capable of interpreting adversity as a challenge rather than a threat tend to have higher levels of intrinsic motivation. For instance, Azahra and Isa (2021) found that AQ directly enhanced employee motivation, which subsequently improved job performance in SMEs. Similarly, Li et al. (2022) concluded that AQ indirectly improved work engagement (a form of motivation) among ICU nurses by increasing their psychological resilience and organizational commitment.

Qualitative investigations among Finnish nurses during COVID-19 highlighted the centrality of management recognition, psychological safety, and participatory decision-making in reinforcing motivation (Pellikka, Junttila, Laukkala, & Haapa, 2024). These human-centered elements of

organizational practice effectively support sustained professional dedication. This illustrates the dynamic interplay among the motivators that sustain nurses amidst challenges. Drawing from the JD-R model, motivation is conceptualized as emerging when environmental support counters stressors (Shan et al., 2023). Nurses with stronger AQ and higher perceived support are therefore more likely to maintain sustained engagement and performance (Nuriani, Suryadi, & Sudiarni, 2023). In addition, motivational factors are closely linked to organizational outcomes. Nurses with high motivation report greater satisfaction with leadership, are more likely to stay in their jobs, and show greater adherence to safety and quality protocols (Galdames, Jurado, Martínez, Pérez-Fuentes, & Linares, 2024). Thus, motivation plays a dual role as both a personal resource and an organizational performance enhancer (Jarkawi, 2022).

In addition to the previous findings, further research reinforces the central role of motivation, which is often accelerated by Adversity Quotient (AQ) and organizational support. According to Pellikka et al. (2024), a study involving 824 frontline nurses in China found that perceived organizational support and affective commitment served as key mediators between work-related anxiety, high workload, and work engagement. They explained that although subjective workload and anxiety negatively affected engagement, these effects could be offset by strong organizational support and emotional commitment to the workplace. This confirms that motivation does not arise in isolation; it is triggered by feeling valued, cared for, and included in decision-making processes, echoing the findings from a qualitative survey in Finland by Pellikka et al. (2024). Their analysis of responses from 579 nurses identified the need for recognition, safe working conditions, and transparent information flow as critical elements of perceived organizational support. These dynamics are consistent with the Job Demands–Resources (JD-R) theory, which states that organizational support through facilities, communication, and recognition acts as a resource that balances work demands and fuels intrinsic motivation and work engagement. Thus, the combination of intrinsic motivation (enhanced by AQ) and contextual support creates an optimal synergy for maintaining sustainable performance among nurses (Shan et al., 2023).

Li et al. (2022) also confirmed that in Indonesian community health centers (Puskesmas), nurses' perception of social and institutional support strengthens the relationship between AQ and work engagement. Nurses with high AQ who perceive strong support consistently report higher engagement levels and a stronger willingness to remain, even under intense pressure. Furthermore, highly motivated nurses were more compliant with safety protocols and quality standards. They also reported greater satisfaction with leadership and a stronger intent to remain within the organization, demonstrating that motivation plays a dual role as an internal resource and lever for organizational performance. Motivation provides direction, energy, and behavioral consistency, even in uncertain or stressful environments.

Altogether, the integration of these findings supports the view that within models linking AQ and nurse performance, motivation, both intrinsic and extrinsic, acts as a transformational bridge, converting personal resilience into operational dedication, emotional engagement, and concrete work outcomes. Nurses with strong AQ: (1) are better able to maintain intrinsic motivation despite hardship; (2) are more receptive to organizational support and respond with affective commitment; and (3) are more likely to report high job satisfaction, protocol adherence, and organizational loyalty. Therefore, interventions designed to enhance motivation, such as managerial recognition, involvement in clinical decisions, and both emotional and logistical support, can strengthen the effect of AQ on performance. These strategies not only enhance the quality of healthcare delivery in Puskesmas but also support nurses' mental well-being and workforce stability during crises.

2.3 Job Performance

Job performance encompasses both task performance (i.e., technical efficiency and output quality) and contextual performance (i.e., interpersonal support, adaptability, and organizational citizenship). In healthcare, particularly nursing, job performance involves clinical accuracy, emotional engagement, patient-centered care, and collaboration with colleagues. Performance is often influenced by psychological factors such as stress tolerance, job satisfaction and motivation. Shen et al. (2024) demonstrated that psychological resilience significantly influences job performance by fostering greater

work engagement and reducing the emotional fatigue. Their study showed that resilience, including aspects of AQ, enables nurses to maintain care quality and support team dynamics, even under pressure. Schaufeli (2021) further showed that resilience acts as a buffer against burnout, preserving mental health and job performance in nurses.

Other studies have highlighted that performance in healthcare is strongly dependent on non-technical factors such as emotional intelligence, professional identity, and inner drive. Zhang et al. (2023) indicated that higher nurse engagement and motivation are strongly associated with better implementation of patient safety behaviors, increased adherence to clinical protocols, and improved overall job performance, leading to fewer clinical errors and higher patient satisfaction. Qualitative studies further indicate that motivation-driven behaviors, such as proactive communication, self-led learning, and teamwork, are essential components of high performance (Shan et al., 2023). These behaviors manifest when nurses perceive meaningful support and purposes. Moreover, the complexity of patient traits is strongly influenced by internal motivation and psychological resilience. Therefore, job performance can be seen as an outcome shaped by the interplay of various personal and environmental factor, with AQ and motivation serving as central antecedents (Ichsan, Nurwahidin, & Widiastuti, 2023).

Job performance consists of two key dimensions: task performance (technical efficiency and output quality) and contextual performance (interpersonal support, adaptability, and organizational citizenship behavior). In healthcare, especially nursing, this includes clinical accuracy, emotional engagement, patient-centered care, and collaboration with colleagues. Psychological factors, such as stress tolerance, job satisfaction, and motivation, significantly influenced both dimensions. According to Nantsupawat, Kutney-Lee, Abhicharttibutra, Wichaikhum, and Poghosyan (2024) showed that psychological resilience has a significant impact on work performance by increasing work engagement and reducing emotional exhaustion. This enables nurses to maintain service quality and support team dynamics, even under pressure. Schaufeli (2021) emphasized that resilience acts as a buffer against burnout, maintaining nurses' mental health and work performance through engagement and psychological energy. In addition, Fashafsheh, Eqtait, Hammad, Ayed, and Salameh (2025) found that emotional intelligence (EI) is a strong predictor of ICU nurses' job performance, including the quality and quantity of clinical tasks, with a correlation of $r = 0.611$ ($P < 0.05$). EI facilitates effective communication, stress management, and healthy interprofessional relationships in clinical settings.

The Job Demands–Resources (JD-R) theory offers a theoretical framework for explaining how the combination of job demands and resources can either hinder or facilitate motivation and performance. In this model, personal resources such as resilience or AQ, along with organizational support such as social reinforcement, can balance high job demands to sustain work engagement and prevent burnout. Fashafsheh et al. (2025) studied 496 nurses and found that resilience and organizational support work synergistically to enhance work engagement. Organizational support also mediates the relationship between resilience and engagement. Additionally, innovative behavior reinforces the impact of support on work engagement. Findings from Nantsupawat et al. (2024) in Thailand demonstrated that nurses with high resilience had lower probabilities of experiencing emotional exhaustion and depersonalization and reported higher work engagement, which directly improved both task and contextual performance while reducing turnover intention. Similarly, Poku, Bayuo, Agyare, Sarkodie, and Bam (2025) in a cross-country study in Ghana found that work engagement negatively impacted turnover intention, and resilience mediated this relationship, further confirming that performance and emotional connection also foster job stability. Emotional intelligence has also been shown to enhance job commitment and satisfaction, which in turn strengthens nurse performance. Soriano-Vázquez, Cajachagua Castro, and Morales-García (2023) revealed that conflict management mediates the relationship between EI and job satisfaction ($\beta = 0.77$, $p = 0.002$). Mora, Álvarez, Cabodevilla, and Vázquez-Calatayud (2024) highlighted that EI helps prevent burnout by improving interpersonal communication and teamwork in ICU settings. In terms of non-technical performance, professional identity and intrinsic motivation shaped by AQ and resilience facilitate performance-supportive behaviors such as proactive communication, self-directed learning, team support, patient safety behavior, and clinical adaptability.

These behaviors consistently emerge when nurses perceive organizational support and find meaning in their duties (Shan et al., 2023). The integration of personal (AQ, resilience, EI), social (organizational support), and environmental (high clinical demands) factors was emphasized as a key predictor of nursing performance. Their study revealed that nurses with high AQ and strong institutional support, such as supervision, training, and constructive feedback, tended to deliver more accurate and collaborative clinical performance. The conceptual pathway can be formulated as follows:

1. AQ and resilience as personal resources → strengthening EI, professional identity, and adaptive coping → enhanced task performance through clinical accuracy and service quality.
2. Organizational resources (support, communication, recognition) → balancing high demands → increased work engagement and contextual performance (teamwork, organizational citizenship).
3. Intrinsic motivation and affective commitment are bridges linking AQ to tangible performance outcomes.
4. Emotional intelligence enriches contextual dimensions through effective communication, conflict resolution, and healthy professional relationships.

From this model, nurse job performance emerges as a synergistic result of internal strength (AQ, resilience, EI, and motivation) and contextual support. Technical and social performance remained consistently higher among nurses with strong AQ and supportive work environments.

2.4 Relationship Between Variables

A growing body of literature supports the existence of both direct and indirect pathways between AQ, motivation, and job performance. The first hypothesis assumes that individuals with higher AQ possess stronger internal coping abilities, which enhance their intrinsic drive and commitment to perform well at work. This is supported by the literature suggesting that adversity-tolerant individuals view challenges as opportunities for personal and professional growth (Gou et al., 2024). This direct effect is attributed to AQ's role in enhancing emotional resilience, goal persistence, and stress management (Lubis, 2018; Luo et al., 2025)

H1: AQ has a positive effect on motivation.

Second, AQ influences the motivation. Individuals with higher AQ are more likely to maintain intrinsic interest in their work even under unfavorable conditions. Motivation is widely recognized as a key predictor of performance outcomes. Azahra and Isa (2021) demonstrated that motivation acts as a mediating variable between AQ and performance, suggesting that AQ indirectly improves performance by enhancing the desire and commitment to perform well.

H2: AQ has a positive effect on job performance.

Third, motivation is positively associated with job performance. Shen et al. (2024) found that motivated nurses exhibited higher engagement, job satisfaction, and task completion rates. Previous studies have also shown that motivated nurses demonstrate greater care quality, attention to detail, and compliance with safety standards (Pellikka et al., 2024; Shan et al., 2023). Motivation not only drives task execution but also enhances contextual behaviors, such as teamwork and patient communication.

H3: Motivation has positive effect on job performance.

Finally, drawing on the theory of psychological mediation, this study proposes that motivation functions as a pathway through which AQ exerts its full impact on performance. This mediating role has been highlighted in prior research on resilience and job engagement among health care workers (Kooktapeh et al., 2023).

H4: AQ indirectly affects job performance through motivation.

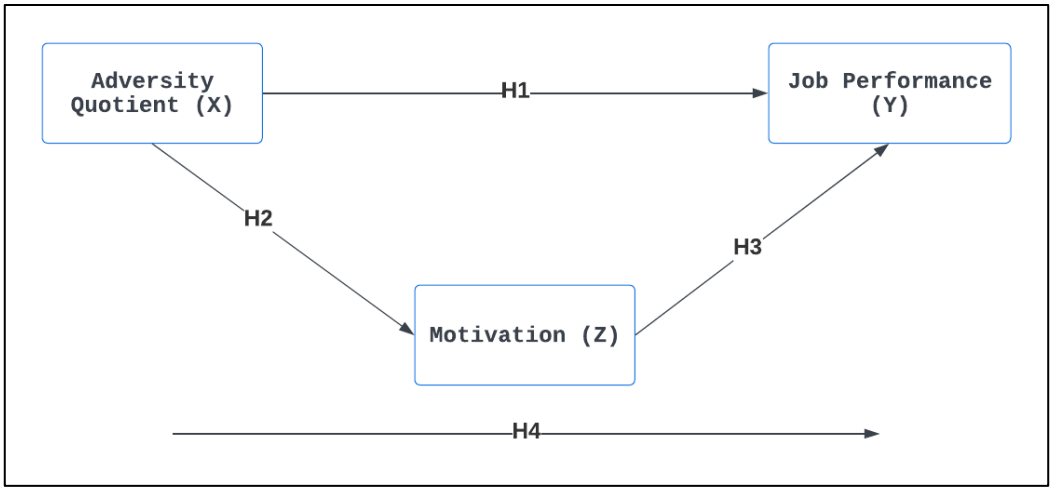

Figure 1. Conceptual Framework

3. Methodology

This study adopts a quantitative approach with an explanatory research design aimed at identifying and analyzing the causal relationships between adversity quotient, motivation, and job performance. The design allows for hypothesis testing using statistical techniques and is well-suited to assess the mediating role of motivation in the proposed model. The study population comprised nurses working in Puskesmas (community health centers) in Batam City, Indonesia. These healthcare professionals were directly involved in patient care during the COVID-19 pandemic, facing high workloads, emotional pressure, and limited resources. A purposive sampling technique was employed, targeting nurses with at least one year of professional experience who were actively engaged in service delivery during the pandemic. A total of 137 respondents participated in this study. The sample size meets the recommended minimum for Structural Equation Modeling–Partial Least Squares (SEM–PLS) analysis, which requires at least 10 times the number of indicators for the most complex construct in the model.

Primary data were collected using a structured questionnaire distributed online and offline. The questionnaire consisted of closed-ended statements using a 5-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The items were adapted from validated instruments used in prior studies to ensure reliability and content validity. AQ was measured by reflecting on dimensions such as control, ownership, reach, and endurance. Motivation was assessed using a modified version of the Work Extrinsic and Intrinsic Motivation Scale (WEIMS). Job performance was measured using indicators related to task completion, quality of care, communication, and problem-solving, which were adapted from prior healthcare performance models.

4. Results and discussion

4.1 Outer Model Evaluation

The initial assessment of the measurement model focused on the indicator loading values. In alignment with the guidelines by Hair Jr et al. (2021), indicators with standardized loading values below 0.70 were considered for removal to improve construct reliability and convergent validity. As a result, 7 out of 14 indicators for AQ, 6 out of 13 for motivation, and 13 out of 15 for job performance were retained for further analysis. This decision is theoretically and methodologically justified.

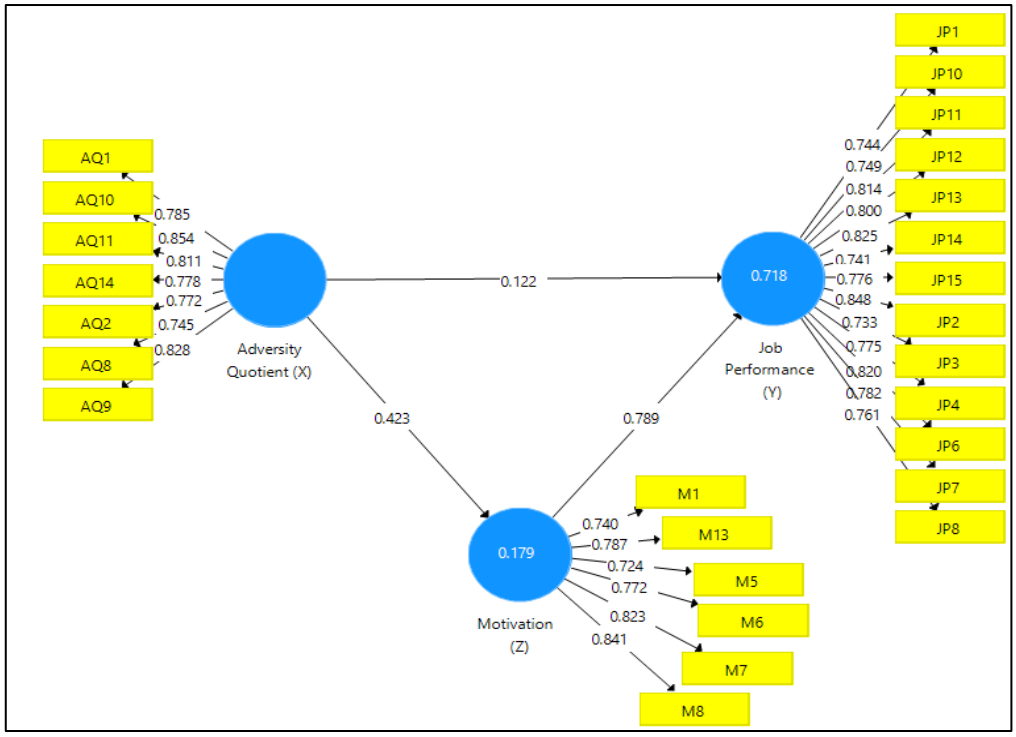

Figure 2. Loading Factor Path Diagram

Table 1. Loading Factor Outer Model

Variable	Indicator	Outer Loading	Criterion	Information
Adversity Quotient (X)	AQ1	0.785	>0.7	Valid
	AQ2	0.772		Valid
	AQ8	0.745		Valid
	AQ9	0.828		Valid
	AQ10	0.854		Valid
	AQ11	0.811		Valid
	AQ14	0.778		Valid
Motivation (Z)	M1	0.740	>0.7	Valid
	M5	0.724		Valid
	M6	0.772		Valid
	M7	0.823		Valid
	M8	0.841		Valid
	M13	0.787		Valid
Job Performance (Y)	JP1	0.744	>0.7	Valid
	JP2	0.848		Valid
	JP3	0.733		Valid
	JP4	0.775		Valid
	JP6	0.820		Valid
	JP7	0.782		Valid
	JP8	0.761		Valid
	JP10	0.749		Valid
	JP11	0.814		Valid
	JP12	0.800		Valid
	JP13	0.825		Valid
	JP14	0.741		Valid
	JP15	0.776		Valid

Source: Output SmartPLS 3

According to Hair Jr et al. (2021), indicators with low loadings may weaken measurement quality and should be removed unless there are strong theoretical justifications for retaining them. Dripping indicators with loadings below 0.70 is a common practice in PLS-SEM to enhance both the construct reliability and the parsimony of the model. Hence, item deletion was justified and performed rigorously to ensure that the constructs were measured with precision and clarity.

Table 2. Construct Reliability and Validity

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Adversity Quotient (X)	0.904	0.911	0.924	0.635
Job Performance (Y)	0.947	0.948	0.954	0.613
Motivation (Z)	0.872	0.875	0.904	0.612

Source: Output SmartPLS 3

Following item reduction, the constructs were assessed for internal consistency, reliability, and convergent validity. The Cronbach's alpha values ranged from 0.872 to 0.947, the Composite Reliability values exceeded 0.90, and the AVE for all constructs exceeded the recommended threshold of 0.50, indicating strong validity and reliability of the constructs in the measurement model. Thus, the constructs meet the minimum criteria for measurement model adequacy and can be confidently used in structural model analysis.

Table 3. Fornell-Lacker Criterion

Variable	X	Y	Z
Adveristy Quotient (X)	**0.797**		
Job Performance (Y)	0.455	**0.783**	
Motivation (Z)	0.423	0.840	**0.782**

Source: Output SmartPLS 3

Discriminant validity was assessed using the Fornell-Larcker criterion. Based on Table 3, the square root of VE for job performance was slightly lower than its correlation with motivation, suggesting a potential violation. However, recent literature argues that slight violations may not automatically disqualify discriminant validity, especially if the constructs are theoretically distinct (Henseler, Ringle, & Sarstedt, 2015).

Table 4. Hypothesis Testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
X → Y	0.122	0.133	0.063	1.942	**0.053**
X → Z	0.423	0.450	0.090	4.708	**0.000**
Z → Y	0.789	0.782	0.050	15.627	**0.000**
X → Z → Y	0.333	0.350	0.062	5.359	**0.000**

The structural model, evaluated through PLS-SEM with 5,000 bootstrap resamples, revealed that AQ significantly and positively influenced motivation, confirming that nurses with higher resilience, characterized by adaptability and emotional stability, tend to be better motivated in their roles. This finding aligns with the existing literature, such as Shen et al. (2024), who found that motivational engagement mediates the effect of psychological resilience on nursing performance in crisis contexts. However, the direct effect of AQ on job performance was non-significant ($p = 0.053$), indicating that resilience alone does not directly translate into measurable performance. This underscores that AQ functions as a psychological base, but without sufficient motivational energy, its impact on behavior remains latent, consistent with Deci and Ryan (2000) self-determination theory, which posits that internal capacities must be activated through motivational drivers to produce action.

In contrast, motivation displayed a strong and statistically significant predictive effect on job performance ($\beta = 0.789$, $p < 0.001$), underscoring its decisive role in determining practical nursing outcomes. Moreover, the indirect pathway from AQ to job performance via motivation was statistically significant, confirming a fully mediated relationship. These findings support a mediated psychological model in which AQ provides resilience, but motivation energizes performance. This is mirrored in studies such as those by Lubis (2018) in non-healthcare contexts and Shen et al. (2024) among nurses, reinforcing that resilience's effectiveness is realized only when channeled through motivational systems.

5. Conclusion

This study investigated the relationship between adversity quotient (AQ), motivation, and job performance among nurses in public health centers during the COVID-19 pandemic in the Philippines. Using PLS-SEM, the findings confirm that AQ significantly improves motivation but does not have a statistically significant direct effect on job performance. This implies that while AQ is a crucial psychological asset, its impact on workplace behavior is indirect and functions through internal motivational processes. This aligns with Stoltz (1999) conceptualization of AQ as a personal capacity to withstand and learn from adversity rather than a behavioral outcome. Nurses with high AQ may be psychologically prepared to face challenges; however, this readiness must be transformed into action through other mechanisms, most notably motivation.

In this study, motivation emerged as a strong and significant predictor of job performance and a full mediator of the AQ–performance relationship. This supports the Self-Determination Theory Deci and Ryan (2000), which suggests that intrinsic motivation, driven by autonomy and competence, is key to converting personal resources into sustained behavioral outcomes. Nurses who feel purposeful and engaged are more likely to translate their adversity coping capacity into professional excellence. This conclusion is further reinforced by the findings of (Gou et al., 2024), who reported similar indirect patterns of influence in nursing contexts. The importance of motivation is echoed in Shan et al. (2023), who found that organizational support enhances job engagement, and Kooktapeh et al. (2023), who linked motivational failure to burnout and decreased performance.

Therefore, the contribution of this study is twofold: theoretically, it supports a mediated psychological framework in which AQ influences performance through motivation; practically, it emphasizes that nurse performance under adversity requires both inner strength and motivational activation. For health institutions, this means that resilience-building initiatives must be accompanied by strategies that foster intrinsic motivation, such as autonomy, professional growth, and recognition. Only by integrating these efforts can organizations ensure sustained and high-quality care delivery under pressure.

References

Alameddine, M., Clinton, M., Bou-Karroum, K., Richa, N., & Doumit, M. A. (2021). Factors Associated With the Resilience of Nurses During the COVID-19 Pandemic. *Worldviews on Evidence-Based Nursing, 18*(6), 320-331. doi:https://doi.org/10.1111/wvn.12544

Ambrose, J. W., Catchpole, K., Evans, H. L., Nemeth, L. S., Layne, D. M., & Nichols, M. (2024). Healthcare Team Resilience during COVID-19: A Qualitative Study. *BMC Health Services research, 24*(1), 1-13. doi:https://doi.org/10.1186/s12913-024-10895-3

Azahra, F., & Isa, M. (2021). *Pengaruh Motivasi Sebagai Variabel Mediasi Hubungan Antara Job Autonomy, Adversity Quotient dan Kinerja Karyawan.* Paper presented at the Prosiding University Research Colloquium.

Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry, 11*(4), 227-268. doi:https://doi.org/10.1207/S15327965PLI1104_01

Elia, N., & Marselina. (2023). Tingkat Pengangguran Berdasarkan Jumlah Penduduk, Pendapatan Perkapita, dan Investasi Asing di Indonesia Tahun 1996-2020. *Studi Ekonomi dan Kebijakan Publik, 1*(2), 123-135. doi:https://doi.org/10.35912/sekp.v1i2.1391

Fashafsheh, I. H., Eqtait, F. A., Hammad, B. M., Ayed, A. J., & Salameh, B. S. (2025). The impact of emotional intelligence on work performance among ICU nurses in Palestine: a cross-sectional study. *BMC Nursing, 24*(1), 413. doi:https://doi.org/10.1186/s12912-025-03068-y

Galdames, I. S., Jurado, M. d. M. M., Martínez, E. F., Pérez-Fuentes, M. d. C., & Linares, J. J. G. (2024). Resilience, Burnout and Mental Health in Nurses: A Latent Mediation Model. *Journal of Clinical Medicine, 13*(10), 1-11. doi:https://doi.org/10.3390/jcm13102769

Gou, X., Chen, L., Yang, S., Li, Y., & Wu, J. (2024). Relationships of the adversity quotient subtypes of nursing interns with depression, coping styles, positive psychological capital, and professional adaptability: a cross-sectional study. *BMC Medical Education, 24*(1), 865. doi:https://doi.org/10.1186/s12909-024-05853-w

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. New York: Springer Nature.

Hardana, A., Nasution, J., Damisa, A., Lestari, S., & Zein, A. S. (2024). Analisis Hubungan Pertumbuhan Ekonomi dengan Kemiskinan dan Belanja Modal Pemerintah Daerah, Penyerapan Tenaga Kerja, dan Indeks Pembangunan Manusia. *Studi Ekonomi dan Kebijakan Publik, 2*(2), 59-68. doi:https://doi.org/10.35912/sekp.v2i2.2344

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science, 43*, 115-135. doi:https://doi.org/10.1007/s11747-014-0403-8

Ichsan, M. A. I. D., Nurwahidin, M., & Widiastuti, R. (2023). Analisis Pengetahuan dan Keterampilan Kesiapan Kebencanaan pada Guru SMA Negeri 1 Kalianda, Lampung Selatan. *Jurnal Humaniora dan Ilmu Pendidikan (Jahidik), 2*(2), 79-92. doi:https://doi.org/10.35912/jahidik.v2i2.1289

Jarkawi. (2022). Manajemen Pendidikan Kearifan Lokal Syekh Muhammad Arsyad Al Banjari Kalimantan Selatan Indonesia Sebagai Sumber Kekayaan Pendidikan. *Jurnal Humaniora dan Ilmu Pendidikan, 2*(1), 1-11. doi:https://doi.org/10.35912/jahidik.v2i1.1552

Jo, S., Kurt, S., Bennett, J. A., Mayer, K., Pituch, K. A., Simpson, V., . . . Ozluk, B. (2021). Nurses' resilience in the face of coronavirus (COVID-19): An international view. *Nursing & Health Sciences, 23*(3), 646-657. doi:https://doi.org/10.1111/nhs.12863

Kooktapeh, Z. G., Dustmohammadloo, H., Mehrdoost, H., & Fatehi, F. (2023). In the Line of Fire: A Systematic Review and Meta-Analysis of Job Burnout Among Nurses. *General Economics*, 1-15. doi:https://doi.org/10.48550/arXiv.2312.14853

Li, H., Xu, Y. L., Jing, M. J., Wei, X. J., Li, L. M., & Guo, Y. F. (2022). The Mediating Effects of Adversity Quotient and Self-Efficacy on ICU Nurses' Organizational Climate and Work Engagement. *Journal of Nursing Management, 30*(7), 3322-3329. doi:https://doi.org/10.1111/jonm.13773

Lubis, A. (2018). Pengaruh Adversity Quotient Terhadap Kinerja Karyawan Melalui Motivasi Kerja Sebagai Variabel Intervening (Studi pada Pengemudi Taksi Konvensional di Kota Medan). *JKBM (Jurnal Konsep Bisnis dan Manajemen), 4*(2), 60-72. doi:https://doi.org/10.31289/jkbm.v4i2.1525

Luo, Z., Liu, T., Wang, D., Qi, N., Zhang, J., & Tian, L. (2025). The impact of nurses' adversity quotient on their work stress: the mediating role of professional identity. *BMC Nursing, 24*(1), 231. doi:https://doi.org/10.1186/s12912-025-02865-9

Mora, M. S., Álvarez, B. L., Cabodevilla, A. A., & Vázquez-Calatayud, M. (2024). Emotional intelligence of nurses in intensive care units: A systematic review. *Intensive and Critical Care Nursing, 84*, 103724. doi:https://doi.org/10.1016/j.iccn.2024.103724

Nantsupawat, A., Kutney-Lee, A., Abhicharttibutra, K., Wichaikhum, O.-A., & Poghosyan, L. (2024). Exploring the relationships between resilience, burnout, work engagement, and intention to leave among nurses in the context of the COVID-19 pandemic: a cross-sectional study. *BMC Nursing, 23*(1), 290. doi:https://doi.org/10.1186/s12912-024-01958-1

Nuriani, L., Suryadi, & Sudiarni. (2023). Analisis Hukum Hilangnya Hak Kepemilikan Tanah Masyarakat Pesisir Bintan Akibat Peraturan Agraria. *Kajian Ilmiah Hukum dan Kenegaraan, 2*(2), 87-93. doi:https://doi.org/10.35912/kihan.v2i2.2415

Pellikka, A., Junttila, K., Laukkala, T., & Haapa, T. (2024). Nurses' perceptions of desired support from their employer during the COVID-19 pandemic: a qualitative survey study. *BMC Nursing, 23*(1), 128. doi:https://doi.org/10.1186/s12912-024-01779-2

Poku, C. A., Bayuo, J., Agyare, V. A., Sarkodie, N. K., & Bam, V. (2025). Work engagement, resilience and turnover intentions among nurses: a mediation analysis. *BMC Health Services Research, 25*(1), 71. doi:https://doi.org/10.1186/s12913-025-12242-6

Saxena, S., & Rathore, B. (2025). Adversity Quotient as Determining Factor of Mental Health and Professional Quality of Life Among Healthcare Professionals: A Systematic Review. *Annals of Neurosciences, 32*(1), 58-65. doi:https://doi.org/10.1177/09727531241231055

Schaufeli, W. (2021). The Burnout Enigma Solved? *Scandinavian Journal of Work, Environment & Health, 47*(3), 169-170. doi:https://doi.org/10.5271/sjweh.3950

Shan, Y., Zhou, X., Zhang, Z., Chen, W., & Chen, R. (2023). Enhancing the work engagement of frontline nurses during the COVID-19 pandemic: the mediating role of affective commitment and perceived organizational support. *BMC Nursing, 22*(1), 451. doi:https://doi.org/10.1186/s12912-023-01623-z

Shen, Z.-M., Wang, Y.-Y., Cai, Y.-M., Li, A.-Q., Zhang, Y.-X., Chen, H.-J., . . . Tan, J. (2024). Thriving at Work as a Mediator of the Relationship between Psychological Resilience and the Work Performance of Clinical Nurses. *BMC Nursing, 23*(1), 1-10. doi:https://doi.org/10.1186/s12912-024-01705-6

Song, J.-H., & Woo, H.-Y. (2015). A study on AQ (adversity quotient), job satisfaction and turnover intention according to work units of clinical nursing staffs in Korea. *Indian Journal of Science and Technology, 8*(8), 74-78. doi:https://doi.org/10.17485/ijst/2015/v8is8/71503

Soriano-Vázquez, I., Cajachagua Castro, M., & Morales-García, W. C. (2023). Emotional intelligence as a predictor of job satisfaction: the mediating role of conflict management in nurses. *Frontiers in Public Health, 11*, 1249020. doi:https://doi.org/10.3389/fpubh.2023.1249020

Stoltz, P. G. (1999). *Adversity Quotient: Turning Obstacles into Opportunities*. Canada: John Wiley & Sons.

Xu, W., Li, L., Jiang, Q., Fang, Y., & Yang, Q. (2024). Relationship between the sense of nursing professional pride and adversity quotient, grit levels among nurses in blood purification centers: a multicenter cross-sectional study. *Frontiers in Psychology, 15*, 1441010. doi:https://doi.org/10.3389/fpsyg.2024.1441010

Yu, F., Chu, G., Yeh, T., & Fernandez, R. (2024). Effects of interventions to promote resilience in nurses: A systematic review. *International Journal of Nursing Studies, 157*, 104825. doi:https://doi.org/10.1016/j.ijnurstu.2024.104825

Yudiyawaties, N. D., Anwar, K., Yuliansyah, M., & Jarkawi, J. (2022). Hubungan Sertifikasi Kepuasan Kerja dan Pembinaan Profesionalisme dengan Manajemen Kinerja Guru BK SMP di Kecamatan Kelua Pugaan dan Banua Lawas. *Jurnal Humaniora dan Ilmu Pendidikan (Jahidik), 1*(2), 129-138. doi:https://doi.org/10.35912/jahidik.v1i2.1551

Zhang, M., Chen, H., Wang, N., Li, Y., Li, X., & Liu, Y. (2023). The Mediating Role of Job Satisfaction between Psychological Capital and Work Engagement among Chinese Nurses during COVID-19 Outbreak: A Comparative Study Between Nurse Specialists and General Nurses. *Frontiers in Psychiatry, 13*, 1-15. doi:https://doi.org/10.3389/fpsyt.2022.990216

Zulkarnain, Said, D. U., & Amitasari, D. (2022). Analisis Efisiensi Teknis, Alokatif dan Ekonomi pada Usahatani Padi Sawah. *Studi Ekonomi dan Kebijakan Publik, 1*(1), 1-12. doi:https://doi.org/10.35912/sekp.v1i1.728