

Psychological Safety as a Catalyst for Healthcare Team Performance: Mediating Roles of Communication and Mental Health in Crisis Contexts

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ABSTRACT: The COVID-19 pandemic placed unprecedented pressures on global healthcare systems, particularly frontline workers. This study examines how psychological safety influences team performance through the mediating roles of communication satisfaction and mental health among Indonesian healthcare professionals. A mixed methods approach involving surveys with 177 workers and interviews with 27 participants revealed that psychological safety significantly predicted team performance, partly through communication and well-being. Respondents frequently reported moderate quality of life, with qualitative findings highlighting fear of infection, communication challenges, emotional strain, and supportive peer dynamics. These results underscore the need to embed psychological safety frameworks into crisis protocols, ensuring effective communication, mental health support, and responsive leadership. The study proposes a multi-level model contextualized within Indonesian healthcare that offers practical strategies for improving team performance in resource-limited environments.

Keywords: Psychological Safety, Team Performance, Healthcare Workers, Communication Satisfaction, Mental Health.



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INTRODUCTION

The COVID-19 pandemic has severely affected the mental health of healthcare workers worldwide, including in Indonesia. Studies consistently report high levels of anxiety, depression, and burnout among healthcare professionals during major outbreaks such as SARS, MERS, and COVID-19 (Brier et al., 2020; Shechter et al., 2020). These conditions undermine their ability to work effectively in high-pressure settings. In Indonesia, the rapid rise of cases, limited protective measures, and weak institutional support have further intensified psychological distress, leaving many workers feeling overwhelmed and emotionally exhausted (Okazaki et al., 2022).

In this context, psychological safety emerges as a critical determinant of both individual and organizational resilience. Psychological safety refers to an individual's perception of the

consequences of taking interpersonal risks in a particular context such as a workplace. When teams must adapt to rapidly changing environments and overwhelming workloads, the ability for team members to feel safe in expressing concerns, admitting mistakes, and offering new ideas without fear of negative repercussions is foundational to a resilient and functional healthcare organization (Grailey et al., 2021). A growing body of literature supports the assertion that psychological safety fosters open communication, encourages mutual respect, and enables effective collaboration, all of which are essential for team morale, healthcare quality, and patient safety (Purdy et al., 2022). Additionally, healthcare organizations that prioritize psychological safety consistently report improved teamwork and performance outcomes during crises, as members feel empowered to voice insights, share critical information, and support each other in emotionally taxing environments (O'Donovan et al., 2021).

Conceptual models suggest that team dynamics mediate the link between psychological safety and performance. Inclusive leadership marked by openness and accessibility enhances psychological safety, strengthens communication, and builds cohesion, leading to higher performance in clinical and emergency settings (Ahmed et al., 2020). Empirical studies confirm that teams with strong psychological safety show greater innovation, agility, and resilience, which contribute to better care delivery, staff satisfaction, and patient experience (Bahadurzada et al., 2024).

Communication, meanwhile, plays an undeniably pivotal role in healthcare particularly during pandemics where the spread of misinformation or inconsistent messaging can lead to grave consequences. Research consistently highlights that inadequate or unclear communication can compromise patient outcomes, contribute to medical errors, diminish safety protocols, and exacerbate staff stress (Remtulla et al., 2021). Conversely, clear, consistent, and timely communication has been shown to mitigate misinformation, preserve public trust, and ensure coordinated responses to emerging threats (Wang et al., 2023). The ability to communicate effectively within healthcare teams and between providers and patients is therefore critical not only for logistics and patient outcomes, but also for ensuring that all stakeholders are informed, reassured, and empowered to act decisively in times of crisis (Maben et al., 2023).

In Southeast Asia, evaluating psychological safety within healthcare systems reveals unique contextual challenges and potential opportunities for intervention. Cultural and structural factors such as the emphasis on hierarchical relationships, deference to authority, and group harmony significantly influence both the perception of psychological safety and the preferred modes of communication within healthcare settings (Jaaffar & Samy, 2023). These hierarchical dynamics may inhibit open dialogue, stifle dissent, and deter frontline staff from raising concerns or proposing innovations. Consequently, targeted interventions that promote inclusivity, psychological safety, and flatten hierarchical barriers could yield significant benefits for team functionality and institutional responsiveness (Rathert et al., 2020; Salami et al., 2024). Furthermore, the historical contexts of trauma, collective resilience, and community based care traditions in Southeast Asian populations necessitate context sensitive strategies that address healthcare workers' psychological needs while fostering a cohesive and supportive workplace culture (Chhoa et al., 2024; Maddock et al., 2021).

Examining mental health as a mediating variable in team dynamics has also yielded critical insights regarding the influence of individual psychological well-being on team effectiveness, performance,

and patient care outcomes. Prior studies demonstrate that fostering a supportive environment that prioritizes mental health leads to improved teamwork, greater job satisfaction, lower burnout rates, and more effective healthcare service delivery. By placing mental health at the center of team dynamics, healthcare organizations can cultivate adaptive capacity and resilience among healthcare workers, ultimately improving their ability to respond effectively to prolonged crises such as pandemics ((Koly et al., 2021; Lenzo et al., 2021). Integrating mental health promotion into organizational structures thus becomes not only a compassionate strategy but a practical necessity for sustaining healthcare capacity.

In summary, addressing psychological distress among healthcare workers, particularly in Indonesia, is crucial for a resilient health system. Psychological safety is the backbone of high-functioning teams, enabling communication, trust, and emotional support in stressful contexts. Conceptual models and empirical evidence highlight the interplay between safety, leadership, communication, and performance. The impact of communication failures further underscores the need for strong systems during crises. In Southeast Asia, cultural and historical factors demand context-specific and equity-driven interventions to support both mental health and team capacity in routine and emergency settings.

METHOD

This study used a mixed methods explanatory sequential design, combining quantitative surveys with qualitative interviews to assess how communication satisfaction and mental health mediate the relationship between psychological safety and team performance among Indonesian healthcare workers.

The sequential design began with a quantitative survey followed by a qualitative phase to validate and enrich findings. This method allowed triangulation of data sources to enhance validity and depth, particularly in a complex construct such as psychological safety.

The study included 177 healthcare professionals from various clinical settings during the COVID-19 pandemic. Participants were selected through stratified sampling to ensure representation across healthcare roles and geographic regions.

- Psychological Safety was measured using Edmondson's Psychological Safety Scale, adapted for healthcare (Ito et al., 2021). This scale included items assessing the respondent's comfort in sharing ideas, admitting errors, and asking for help.
- Communication Satisfaction was measured through the Safety Attitudes Questionnaire (SAQ), specifically using its communication subscale to evaluate clarity, transparency, and information flow.
- Mental Health was assessed using self-reported anxiety indicators and quality of life data based on WHOQOL BREF from 147 respondents in Surakarta, focusing on psychological and social dimensions.

- Team Performance was captured via a Likert based scale measuring self-assessed efficiency, cohesion, and mutual support within teams.

Path analysis tested direct and indirect effects among psychological safety, communication satisfaction, mental health, and team performance (Frazier et al., 2016). Model fit was evaluated with CFI, RMSEA, and TLI indices, and mediation was confirmed using bootstrapping.

Interviews were conducted with 22 nurses from Belu, NTT and 5 healthcare workers from correctional institutions. Participants were selected based on purposive sampling to ensure perspectives from high risk and resource constrained environments.

Semi structured interviews explored experiences of emotional strain, team interactions, communication practices, and perceptions of psychological safety during the pandemic. Interviews were audio recorded, transcribed verbatim, and translated where necessary.

Thematic analysis followed Braun and Clarke's six step framework. Codes were identified inductively and categorized into key themes such as fear, communication breakdown, team trust, and support systems (Grailey et al., 2021). Analyst triangulation was used to enhance trustworthiness.

The final phase integrated both methods: quantitative results established trends, while qualitative data provided interpretive depth and explained underlying mechanisms. This approach aligns with best practices in mixed-methods healthcare studies (Vogt et al., 2024).

Ethical approval was obtained from institutional review boards. All participants gave informed consent, and data confidentiality was strictly maintained.

This methodological framework enabled a comprehensive exploration of how psychological safety, communication, and mental health interplay to shape team performance among healthcare workers in pandemic settings.

RESULT AND DISCUSSION

Quantitative Findings

Of the 177 respondents, 61% reported moderate anxiety and 15% high anxiety. These levels are consistent with international findings, where 30–70% of healthcare workers report similar distress depending on job role and exposure (Fleuren et al., 2021). Frontline workers in ICUs, ERs, and COVID-19 wards showed the highest burden, underscoring the need for targeted mental health interventions (Meekes et al., 2023).

Further evaluation using WHOQOL BREF data from a subsample of 147 respondents located in Surakarta offered insight into broader quality of life trends. The mean psychological domain score was 58, while the social domain averaged 61. Approximately 34% of respondents categorized their overall quality of life as good, whereas the majority 66% fell within the moderate range. These scores closely follow international norms for WHOQOL BREF scoring, where a score below 50 often indicates elevated psychological distress or inadequate social functioning (Labrague, 2021).

The relatively low scores in both domains highlight the ongoing emotional toll of working in high pressure, resource constrained healthcare environments.

Table 1. Descriptive Statistics (n=177)

Variable	Mean (SD)	Category
Anxiety	–	61% moderate
Psychological Safety	3.5 (0.6)	Moderate high
Communication Satisfaction	3.2 (0.7)	Moderate
Team Performance	3.7 (0.8)	Moderate high

In correlational analysis, psychological safety was moderately positively correlated with team performance ($r = 0.48$), indicating that increased perceptions of psychological safety were associated with better self-reported team functioning. This finding aligns with meta analytical studies in healthcare settings, which generally report average correlation coefficients between 0.35 and 0.60 (Radu, 2023). The correlation supports the hypothesis that psychological safety is a key determinant of functional and high performing healthcare teams.

Communication satisfaction was also found to be positively associated with both psychological safety and team performance. Respondents who rated communication practices within their teams as satisfactory tended to report stronger perceptions of safety and higher team performance scores. This aligns with previous Indonesian studies using Likert scale models to assess communication quality, where better communication was strongly linked to fewer reported errors and greater teamwork efficacy.

Path analysis was used to evaluate the hypothesized mediation model involving psychological safety, communication satisfaction, mental health, and team performance. The results confirmed that both communication satisfaction and mental health partially mediated the relationship between psychological safety and team performance, with statistically significant direct and indirect pathways ($p < 0.05$). Model fit indices demonstrated a robust model fit (CFI = 0.93, RMSEA = 0.05, TLI = 0.91), suggesting strong empirical support for the mediation framework.

These results reinforce the conceptual model positing that psychological safety indirectly contributes to team performance by enhancing communication quality and supporting emotional well-being. The statistical model further suggests that interventions targeting these mediating variables could have a compounding effect on organizational outcomes, especially in crisis scenarios.

Qualitative Findings

The qualitative component of the study involved in depth interviews with 27 healthcare professionals, including 22 nurses from Belu, NTT and 5 health workers from correctional settings. Thematic analysis of these interviews revealed four major themes that reflect the psychological and organizational conditions under which healthcare teams operated during the pandemic.

- **Fear and Stigma** – Nearly all participants reported a persistent fear of transmitting the virus to family members. This fear was compounded by experiences of social stigma from communities who viewed healthcare workers as vectors of infection. Participants expressed that stigma exacerbated their stress levels and contributed to emotional isolation. Limited access to adequate PPE heightened these anxieties and contributed to emotional vulnerability (Zhao & Li, 2024).
- **Communication Breakdown** – Many respondents emphasized inconsistencies in organizational communication. They cited unclear guidance from leadership, last minute changes to safety protocols, and lack of transparency as major stressors. These inconsistencies eroded trust and created confusion in critical decision making environments (Miyazaki et al., 2023).
- **Emotional Strain and Coping** – High workloads, moral injury from resource limitations, and fear of contagion contributed to widespread emotional exhaustion. Participants described coping mechanisms such as emotional support from peers, family encouragement, spiritual practices, and physical activity. The presence of open team communication was repeatedly cited as a protective factor that helped mitigate emotional burnout (Farkash et al., 2022).
- **Supportive Team Dynamics** – Despite systemic challenges, many participants identified strong peer relationships as essential for sustaining morale and maintaining clinical performance. Shared experiences of crisis were seen to foster trust, empathy, and collaboration. Supportive interactions enabled team members to feel psychologically safe, particularly when addressing sensitive issues or acknowledging mistakes.

Table 2. Thematic Summary from Interviews

Theme	Description	Frequency
Fear and Stigma	Fear of infecting family, societal stigma	High
Communication Breakdown	Confusion from leadership and protocol inconsistency	High
Emotional Strain/Coping	Burnout, peer support, and coping strategies	Moderate
Supportive Team Dynamics	Positive emotional exchanges and team cohesion	High

Thematic analysis followed a six phase framework consistent with best practices in organizational psychology (Vaishal, 2023). Initial codes were generated from line by line transcript readings and then organized into higher order themes through iterative analysis and peer debriefing. This methodological rigor allowed for the emergence of nuanced insights into the lived experiences of healthcare workers.

Qualitative findings reinforced the quantitative results, showing how psychological safety and communication shaped daily work. Participants stressed that open dialogue, clear leadership, and peer support directly improved well-being and team effectiveness during crises.

Altogether, the integration of quantitative and qualitative results provides a comprehensive understanding of how psychological safety functions as both a direct and indirect determinant of team performance in healthcare settings during crises. The study contributes robust evidence to support the implementation of institutional interventions aimed at enhancing communication

systems, cultivating emotional resilience, and strengthening psychological safety across health organizations.

Importance of Psychological Safety in Crisis Contexts

Psychological Safety and International Practices in Crisis Contexts Psychological safety is crucial for team performance in high-pressure settings, enabling staff to raise concerns, report errors, and seek help without fear of blame. This reduces distress and improves operational flow, particularly when procedures shift rapidly. International practices, such as routine debriefings, peer support groups, and leadership that encourages feedback, demonstrate how structured interventions can strengthen psychological safety. These approaches highlight strategies that could be adapted within Indonesian healthcare to address resource and communication challenges.

Communication Satisfaction as a Mediating Mechanism

The data further show that communication satisfaction acts as a mediating variable between psychological safety and team performance. Teams that report high levels of communication clarity and openness are also those that perform more effectively and show higher psychological resilience. Communication training emerges as a powerful tool in strengthening this link. Literature suggests that structured communication training enhances interpersonal understanding, reduces hierarchical barriers, and promotes conflict resolution (Zhu et al., 2024). These outcomes build trust among team members, reinforcing their willingness to collaborate, share information promptly, and support each other under pressure. Within Indonesian healthcare settings, where cultural norms may inhibit open dialogue due to respect for authority or fear of reprisal, such training is particularly impactful. Communication satisfaction improves not only interpersonal trust but also organizational reliability, as consistent messaging helps mitigate anxiety and confusion. In critical care settings, where every second matters, the ability to swiftly communicate safety risks or care updates can save lives and improve outcomes, making communication satisfaction a vital operational pillar.

Emotional Strain and Communication Challenges

Qualitative insights from this study illustrate the emotional toll experienced by healthcare workers when communication systems are unclear or inconsistent. Participants from Belu and correctional settings repeatedly reported confusion and distress arising from fluctuating safety protocols and ambiguous leadership directives. These inconsistencies often left frontline workers feeling abandoned or expendable, contributing to moral distress and disengagement. These experiences underscore the necessity of reinforcing not only technical communication systems but also emotional communication capacity where empathy, psychological insight, and active listening are emphasized. In environments marked by uncertainty, clarity in communication becomes not just a procedural requirement but a psychological imperative for sustaining team function. Furthermore, gaps in communication may deepen disparities between administrative expectations

and frontline realities, creating mistrust. Addressing these issues requires that leadership engage with staff on both informational and emotional levels acknowledging challenges, clarifying decisions, and creating space for feedback. Investing in emotional intelligence and relational skills is thus as important as upgrading communication tools or platforms.

Emotional Resilience and System Adaptability

The study also emphasizes the importance of emotional resilience within healthcare systems. Emotional resilience enables healthcare workers to adapt to high stakes environments, recover from setbacks, and maintain high standards of care even under duress. Organizational resilience, in turn, depends on how well individuals are supported to develop and maintain this internal capacity (Lynch et al., 2023; Ran et al., 2020). For example, respondents who reported feeling emotionally supported by their teams also demonstrated greater motivation, lower perceived stress, and higher perceived team effectiveness. Institutions that promote resilience often incorporate mental health resources, mentorship programs, and workload balancing strategies. The reciprocal relationship between team level support and individual well-being confirms that psychological safety must be understood as both a personal and collective construct. During the COVID-19 pandemic, emotionally resilient teams were more likely to sustain adaptive practices, maintain continuity of care, and avoid burnout. Thus, promoting resilience should not be seen as an individual responsibility alone but as a shared organizational goal embedded in daily workflows, leadership priorities, and institutional ethos.

Theoretical Frameworks Connecting Safety and Performance

These findings align with established frameworks such as the Job Demands Resources (JD R) model, which proposes that the availability of resources like autonomy, social support, and constructive feedback can buffer the effects of job demands, leading to better employee outcomes (MacIsaac et al., 2021). In the context of this study, psychological safety and communication satisfaction act as these critical resources, mitigating the emotional and logistical burdens of crisis care. Similarly, Amy Edmondson's model of psychological safety, which underpins much of the theoretical framework for this study, provides evidence that safety at the interpersonal level is a catalyst for operational efficiency, particularly when team members are empowered to take initiative, admit mistakes, and request support (Seaton et al., 2018). These models highlight the importance of shifting institutional culture from one of compliance to one of engagement and learning. Furthermore, integrating safety frameworks into clinical governance systems allows for ongoing monitoring, benchmarking, and improvement. In doing so, organizations can translate abstract constructs like safety culture into actionable strategies with measurable impacts on workforce performance and patient care.

Interactions Between Resilience, Intelligence, and Team Cohesion

Additionally, this research draws upon resilience oriented models that emphasize the dynamic interaction between individual capabilities, team cohesion, and institutional adaptability. The

Resilience Framework underscores the idea that resilient individuals, when embedded within supportive teams and guided by responsive institutions, can effectively navigate the shocks and stressors that characterize healthcare crises (Zhang et al., 2020). Furthermore, frameworks that incorporate emotional intelligence add another dimension to this relationship, illustrating how the ability to understand and manage emotions both one's own and others' contributes to reducing burnout and enhancing performance across the system (Bernabé & Botia, 2016). Emotional intelligence also contributes to better teamwork by enhancing empathy, conflict resolution, and mutual understanding, which are foundational to psychological safety. When team members feel emotionally attuned and interpersonally secure, they are more likely to collaborate effectively under pressure. Team cohesion thus emerges not as a passive outcome but as an active process facilitated by psychological safety, emotional resilience, and shared purpose. Recognizing and reinforcing this dynamic interplay allows organizations to build teams that are not only technically competent but also emotionally agile.

Implications for Policy and Practice

In sum, the study substantiates the hypothesis that psychological safety contributes to better healthcare team performance by enabling clear communication and emotional resilience. The interplay among these factors reflects a systems based perspective on healthcare delivery, where individual, team, and organizational layers interact dynamically to influence outcomes. Policies and interventions that aim to strengthen these layers such as regular communication audits, mental health promotion programs, and leadership training in psychological safety are essential in cultivating resilient and high functioning healthcare teams. These investments should be treated not as ancillary to care delivery but as foundational to clinical safety, staff retention, and institutional continuity. Given the volatility and complexity of healthcare delivery in pandemic conditions and beyond, such systemic investments are not optional but imperative. Moreover, these findings advocate for a policy shift toward integrating psychological metrics into key performance indicators, ensuring that psychological safety, communication effectiveness, and emotional resilience are measured, resourced, and prioritized alongside traditional clinical outcomes. Such integration signals a paradigm shift in which healthcare worker well-being is viewed as central not peripheral to system performance and quality of care.

CONCLUSION

This study demonstrates that psychological safety is a critical determinant of healthcare team performance during crises such as the COVID-19 pandemic. Quantitative and qualitative evidence shows that its influence operates through communication satisfaction and mental health, which serve as key mediators in sustaining teamwork, resilience, and effective patient care. By contextualizing these findings within Indonesian healthcare, the study extends existing frameworks and highlights the role of cultural norms, hierarchical dynamics, and resource disparities in shaping psychological safety.

The practical implication is clear: healthcare institutions must treat emotional safety as a core component of crisis preparedness and workforce sustainability. Priority actions include leadership training in psychological safety, structured communication systems, mental health support services, and integrating psychological indicators into performance metrics. These measures are essential for protecting staff well-being, strengthening institutional resilience, and ensuring high-quality care in Indonesia and other resource-limited healthcare systems.

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