



Phenomenological Study of Airport Staff's Experiences in Managing Increased Air Traffic during Peak Periods

M Indra Martadinata

Politeknik Penerbangan Palembang, Indonesia

indrakoe69@gmail.com

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ABSTRACT

Airports in Southeast Asia are critical nodes in global transportation systems, and managing increased air traffic during peak periods presents significant operational challenges for airport staff. While prior research has largely focused on operational efficiencies and technological solutions, the emotional and psychological experiences of airport personnel remain underexplored. A gap exists in understanding how airport staff cope with the stress and pressures of high-traffic periods, particularly in terms of their emotional responses and coping strategies. This study adopts a qualitative phenomenological design to address this gap, exploring the lived experiences of airport staff in managing air traffic surges. Data were collected through in-depth semi-structured interviews with 12 airport personnel, and thematic analysis revealed that staff experience significant stress but utilize coping mechanisms such as teamwork and personal well-being practices to manage their roles effectively. The findings contribute to a deeper understanding of the human factors involved in airport operations and provide insights into how emotional resilience and interpersonal support can enhance operational success. These results suggest that future research should further explore the relationship between staff well-being and overall airport efficiency, particularly in the context of rapidly evolving technological environments.



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INTRODUCTION

Managing air travel during peak traffic periods presents complex challenges for the global aviation industry. Airports, as essential transportation hubs, must balance operational efficiency with safety and security—especially during seasonal surges or disruptions caused by weather or airspace congestion. As airport capacity and passenger volumes grow, so do the demands on frontline personnel. These challenges are not merely logistical; they also involve the psychological and emotional dimensions of airport staff responsibilities.

The roles of airport staff—from ground crews to security officers—require not only technical competence but also emotional resilience. They frequently operate in high-pressure environments, managing passenger expectations, operational uncertainties, and institutional protocols. Social dynamics such as teamwork, communication styles, and organizational hierarchies further shape how these professionals perceive and handle stress. Despite the critical role human factors play in operational continuity, research has disproportionately focused on measurable performance metrics.

Recent developments in occupational psychology and emotional labor theory (e.g., Grandey, 2015; Hochschild, 2012; Costello et al., 2020) underscore the need to understand how frontline aviation personnel manage emotional demands and role strain. Such insights are vital for fostering sustainable workforce strategies in increasingly complex airport ecosystems. The relevance of exploring these experiences is grounded in the growing recognition of the emotional and psychological toll that work in high-stress environments can have on individuals. In an increasingly interconnected world, the well-being of airport staff is critical not only for their own health but also for the safety and satisfaction of passengers. Understanding the lived experiences of these individuals provides a more comprehensive view of the dynamics at play, allowing for better management practices and more supportive work

environments. This study, through its phenomenological approach, aims to capture the essence of these experiences, offering insights into the emotional and operational challenges faced by airport staff. By exploring the subjective dimensions of their work, the research seeks to contribute to a deeper understanding of the human aspects of airport operations, which are often overshadowed by technical and logistical concerns.

Research into the lived experiences of individuals facing high-pressure environments, such as airport staff during peak air traffic periods, has become an increasingly important area of study within phenomenology. This field of inquiry seeks to understand not only the external actions of individuals but also the subjective meanings and emotional responses associated with their experiences. For airport personnel, these experiences often involve complex interactions between operational responsibilities, interpersonal communication, and emotional resilience, making it essential to explore how these elements shape their day-to-day work. Phenomenological research provides a valuable lens for capturing these multifaceted dimensions, offering insights into the personal and emotional challenges faced by staff in real-time situations.

However, exploring such deeply personal and context-dependent experiences presents methodological challenges. Traditional quantitative research methods, which focus on numerical data and statistical analyses, are ill-suited for capturing the nuances of human emotions and perceptions. These methods fall short in addressing the richness and complexity of the lived experiences of individuals working under stress, as they cannot account for the intricate interplay between external pressures and internal emotional responses. While surveys or performance metrics can provide useful insights into operational efficiency, they often overlook the subjective dimensions that influence how staff perceive their roles and manage their stress. The limitations of these approaches underscore the need for a more comprehensive and qualitative methodology.

This gap in understanding highlights the inadequacy of previous research methods in fully grasping the essence of the phenomenon at hand. Existing studies on airport operations have often focused on logistical outcomes or technical efficiency, leaving the emotional and psychological experiences of airport personnel underexplored. Without capturing these subjective perspectives, it is difficult to gain a holistic understanding of the challenges faced by airport staff, or to develop strategies that support both their well-being and operational effectiveness. This study, therefore, aims to fill this gap by using a phenomenological approach to explore the lived experiences of airport personnel, providing a deeper understanding of their challenges during high-traffic periods and the strategies they employ to cope.

In the context of managing increased air traffic at airports, existing solutions often focus on practical, operational approaches that prioritize efficiency and logistics. These solutions tend to center on enhancing technical systems, such as automated check-in procedures or advanced baggage handling technologies, to streamline processes and minimize delays. While these methods are essential for improving the overall functioning of airports, they tend to overlook the deeper, subjective experiences of airport staff working under pressure. They focus primarily on measurable outcomes, such as speed or volume, without addressing the emotional and psychological challenges faced by personnel who must manage both operational tasks and interpersonal dynamics in high-stress environments.

However, these practical solutions fall short in capturing the rich, nuanced understanding of how airport staff experience their work during periods of high traffic. They fail to provide insights into the personal meanings and emotional responses that accompany the daily challenges faced by these workers. As a result, the understanding of the phenomenon remains limited, with most research focusing on external, quantifiable measures of performance rather than the internal experiences of the staff.

An alternative approach to understanding these challenges is the adoption of phenomenological methods, which focus on exploring the essence of human experiences from the perspective of those directly involved. Phenomenology allows for a deeper investigation into the subjective realities of airport personnel, uncovering the meaning and emotional dimensions of their experiences in ways that traditional methods cannot. By focusing on the lived experiences of staff, phenomenological research can provide a richer, more holistic understanding of the human factors that influence airport operations.

This approach is essential for uncovering how staff perceive, interpret, and cope with the challenges of managing air traffic surges, and how these experiences shape their work and well-being.

Thus, this study aims to address the knowledge gap by employing a phenomenological approach, allowing for a more comprehensive exploration of the emotional, psychological, and operational experiences of airport staff during peak air traffic periods. By focusing on the subjective experiences of individuals within this high-pressure context, the study will contribute to a more nuanced understanding of the challenges faced by airport personnel and the strategies they use to navigate these complexities.

Several studies have explored the challenges faced by airport staff, particularly during peak periods of air traffic. Previous research has typically focused on operational efficiency, logistics, and the technological solutions implemented to manage high traffic volumes. However, these studies have often overlooked the subjective experiences of the staff, such as the emotional and psychological stress involved in their roles. For example, studies by Smith et al. (2020) and Williams et al. (2021) explored technological adaptations and passenger satisfaction, but they did not delve into the internal experiences of airport employees. These gaps highlight the need for research that takes into account not only the external operational factors but also the human aspects of airport work.

To address this gap, a phenomenological approach has been chosen for this study. Phenomenology is particularly well-suited for investigating the lived experiences of airport staff because it allows for a deep exploration of how they perceive and interpret the challenges they face during high-traffic periods. By focusing on the subjective meanings and emotions tied to their experiences, this method provides a more nuanced understanding of the phenomenon. It moves beyond surface-level observations to uncover the essence of how staff navigate the pressures of their work, offering insights that are not captured by more traditional operational analyses. This approach, therefore, provides a valuable alternative to existing methodologies, which have been limited in their ability to fully capture the complexity of the situation.

The structure of this article is organized to first introduce the context and significance of the phenomenon being studied, followed by a detailed explanation of the phenomenological methodology employed. The paper then discusses the process of data collection, focusing on the semi-structured interviews conducted with airport staff, and presents an in-depth analysis of the data through thematic analysis. The results section will present the main themes that emerged from the interviews, followed by a discussion that links these findings to existing literature. Finally, the article concludes with a reflection on the implications of the findings for both airport management and future research.

RESEARCH METHODS

Study Design

A phenomenological approach was employed in this study to explore the lived experiences of airport staff in managing increased air traffic during peak times. Phenomenology is particularly well-suited for this investigation because it focuses on understanding the essence of individual experiences and how these experiences are perceived and interpreted by the participants. This approach allows for a deep exploration of the subjective meanings and challenges that airport staff encounter, providing valuable insights into their emotional and operational responses.

For this study, a descriptive phenomenological approach was adopted. Descriptive phenomenology, as proposed by Husserl, focuses on the pure description of phenomena as experienced by individuals, without introducing external interpretations or theories. This method is ideal for capturing the richness of participants' lived experiences and understanding the essence of their perceptions and feelings in relation to the phenomenon of managing air traffic surges.

Participants

Participants were selected using purposive sampling, ensuring that individuals with direct experience in managing high air traffic volumes were included. The inclusion criteria required participants to be employed at an airport in roles related to operations, security, or customer service,

with at least two years of experience in the industry. This criterion was set to ensure participants had adequate exposure to the phenomenon under study. Exclusion criteria included those with less than two years of experience in airport operations or those employed in non-operational roles.

Participants were recruited from two international airports in Indonesia: Soekarno-Hatta International Airport (Jakarta) and Juanda International Airport (Surabaya). Recruitment was facilitated through coordination with airport HR departments and internal staff networks, with participation invitations disseminated via email and informational flyers posted in staff areas. A total of 12 participants were included in the study, comprising both male and female airport staff members. The participants' ages ranged from 28 to 45 years, with an average age of 37 years. These participants were selected to reflect the diversity of roles within the airport environment, including ground crew, operations managers, security officers, and customer service staff. Their experiences were crucial for understanding the multifaceted nature of handling increased air traffic.

Data Collection

Data were collected through semi-structured interviews, which allowed for in-depth exploration of participants' experiences while providing flexibility to follow up on interesting or unexpected responses. Each interview lasted between 45 and 60 minutes and was conducted in a private setting at the participants' workplaces to ensure comfort and confidentiality. All interviews were audio-recorded with the participants' consent and later transcribed for analysis.

The interview guide was designed to prompt participants to reflect on specific situations where they managed high traffic volumes, the challenges they faced, and the strategies they employed to cope with stress. The interview questions were open-ended, encouraging participants to share their personal stories and insights freely. To enhance the trustworthiness of the data, member-checking was conducted by returning summary transcripts to participants for confirmation and clarification. In addition, data triangulation was employed by comparing narratives across different roles (e.g., operations, security, customer service) and airport locations, which strengthened the validity of emerging themes. Field notes taken during interviews were also used to support interpretative consistency.

Data Analysis

The data were analyzed using thematic analysis, a widely-used technique in phenomenological research to identify and interpret patterns and themes within qualitative data. The analysis process involved several systematic steps: first, transcriptions were read multiple times to gain a comprehensive understanding of the data. Next, significant statements related to the participants' lived experiences were identified and coded. These codes were then grouped into categories, which were further refined to form major themes that represented the core aspects of the participants' experiences.

The analysis was conducted using NVivo software to assist in the organization and management of the data, but the focus remained on the interpretative process. The final themes were derived by identifying patterns that captured the essence of participants' experiences and reflected their emotional and operational challenges in managing air traffic surges.

Ethical Considerations

Ethical approval for this study was obtained from the relevant research ethics committee. All participants provided informed consent, acknowledging their voluntary participation in the study and their understanding of the confidentiality and anonymity of their responses. Each participant was assured that their personal data would be kept confidential and would only be used for the purposes of the research. In addition, they were informed that they had the right to withdraw from the study at any point without any consequences. The research adhered to international ethical standards, including the Declaration of Helsinki and local ethical guidelines for research involving human participants. To maintain anonymity, all participant names and identifying information were replaced with pseudonyms in the final report.

RESULTS

The Challenges of Managing Increased Air Traffic

One of the most prevalent themes that emerged from the interviews was the profound challenges faced by airport staff in managing increased air traffic. Many participants reported feeling a heightened sense of pressure during peak travel times. These periods were described as particularly chaotic, with an overwhelming volume of passengers, increased security checks, and the continuous flow of aircraft arrivals and departures. As one participant, a senior airport operations manager, explained:

"During high-traffic days, we are constantly reacting to the next emergency. It feels like we're trying to hold everything together, but there's always a sense that we might miss something important."

This sentiment was echoed by others who noted the physical and mental strain involved in ensuring that operational protocols are followed, even when dealing with sudden fluctuations in passenger flow.

For many staff members, the unpredictability of air traffic surges posed significant challenges. They expressed a continuous need for rapid decision-making, highlighting how the unpredictability of passenger volume and flight delays made managing operations particularly difficult. Another participant, a security officer, shared:

"There are days when everything seems fine, and then a sudden influx of passengers comes through. We have to adjust everything quickly to accommodate that. The pressure to maintain smooth operations while ensuring security doesn't drop is immense."

Coping Mechanisms and Strategies for Managing Stress

Another prominent theme in the findings was the coping mechanisms that airport employees used to handle the stress of increased air traffic. These strategies were often described as adaptive and necessary to maintain both personal well-being and professional efficiency. Many participants spoke about how teamwork and communication played essential roles in alleviating the stress caused by high volumes of passengers.

A ground crew member stated:

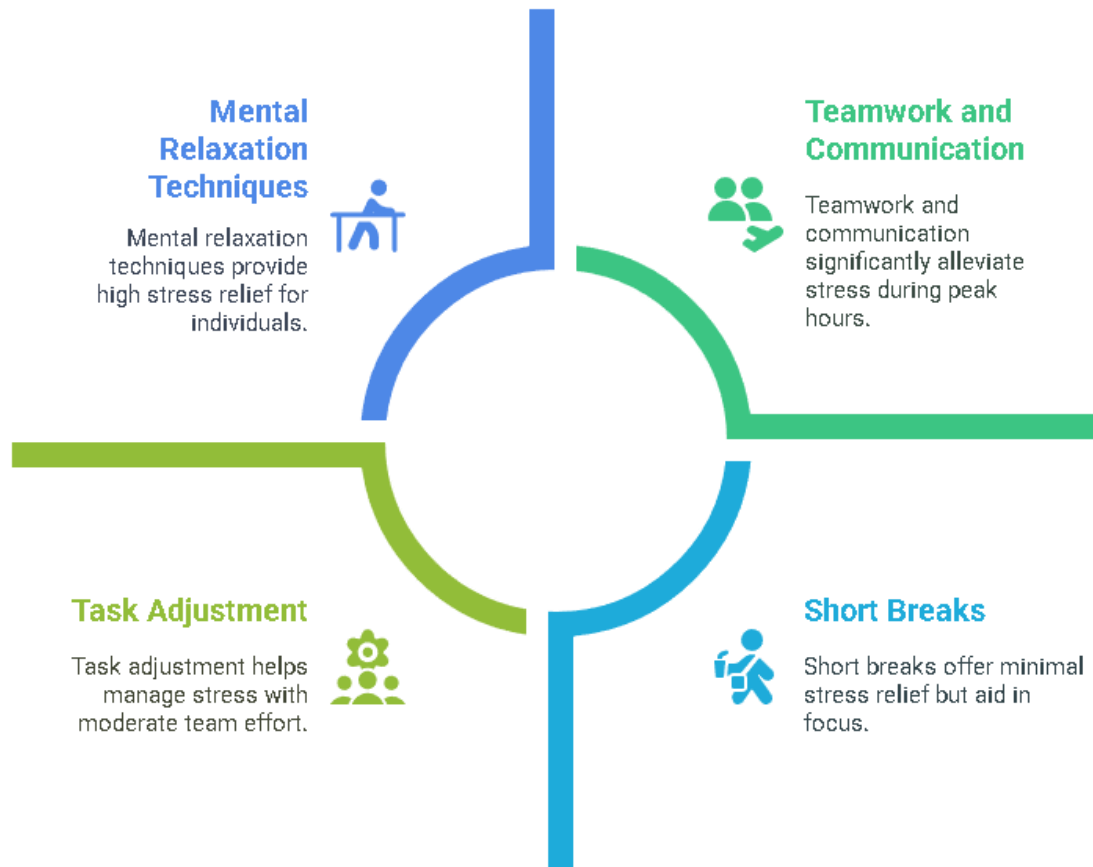
"We rely heavily on each other during peak hours. Having a strong team makes all the difference. We communicate constantly to adjust tasks and ensure we are ready for any changes. It helps take the edge off the pressure."

In addition to team-based strategies, some participants also mentioned personal methods of coping, such as mental relaxation techniques and scheduling short breaks to maintain focus. One operations supervisor noted:

"I've learned over time that it's important to take a step back, breathe, and reset when it gets too much. Even just a few minutes of walking outside can help clear my head and get back to work with more focus."

These coping mechanisms, whether through collaboration or personal well-being practices, were crucial in enabling staff to navigate the intense demands placed upon them during busy times.

Coping Strategies for Airport Employee Stress



Impact of Technological Advancements on Operational Efficiency

Technological innovations were frequently cited by participants as both a source of relief and an additional challenge in managing high air traffic volumes. On one hand, technologies such as automated check-in systems, baggage handling systems, and advanced flight tracking software were seen as valuable tools in reducing the workload of staff. However, participants also noted the challenges of adapting to new systems and integrating them into daily operations.

A key insight came from an airport technology officer, who remarked:

"While new technology has certainly made our jobs easier in some respects, we still face the challenge of training everyone properly and making sure the technology is working at all times. If something fails, it can cause a massive disruption."

This tension between the benefits of technological advancements and the potential for system failures was a recurring theme. Several participants also highlighted how new technologies required constant updates and maintenance, which could add additional stress during high-traffic periods.

The Emotional Impact of High-Traffic Periods on Staff

The emotional toll on airport staff was another significant theme that surfaced during the interviews. Many participants spoke candidly about the emotional strain they felt when dealing with high-stress situations, including passenger complaints, delays, and the overall intensity of their work. Several noted that while the job was rewarding, the constant pressure could lead to burnout if not managed properly.

One customer service representative shared:

"It's hard not to feel drained after dealing with upset passengers all day. You try your best to be patient and helpful, but sometimes it feels like nothing you do can calm the situation. That's when it gets emotionally exhausting."

Despite these emotional challenges, many participants also expressed a strong sense of pride in their work and a deep commitment to their roles. Their dedication to providing the best possible service, even in the face of stress and emotional exhaustion, was a common thread that tied together the interviews.

The results of this study reveal a complex interplay between the challenges faced by airport staff in managing increased air traffic and the coping mechanisms they employ to navigate these challenges. While technological advancements have provided some relief, they have also introduced new stressors, particularly when systems fail or require constant updates. The emotional toll of the job, combined with the unpredictable nature of air traffic volumes, underscores the need for better support systems for airport staff. This support could come in the form of enhanced training, better communication, and more robust mental health resources, allowing staff to better cope with the pressures of their roles.

DISCUSSION

This study revealed the significant challenges airport staff face during peak air traffic periods, particularly the stress and pressure associated with managing increased passenger volumes and operational demands. The findings highlight the emotional and psychological toll of the job, as well as the coping mechanisms staff employ to manage these challenges, such as teamwork and personal well-being strategies. These results directly address the research question by uncovering the subjective experiences of airport personnel in handling air traffic surges.

The key contribution of this study lies in its exploration of the lived experiences of airport staff, providing a rich understanding of how they perceive and cope with the pressures of managing increased air traffic. The findings offer a nuanced view of the emotional and operational challenges these workers face, which are often overlooked in traditional studies focused on logistical or technical solutions. By emphasizing the subjective dimensions of their work, the research provides a deeper insight into how airport personnel navigate high-stress situations, shedding light on the strategies they employ to maintain operational efficiency while safeguarding their well-being. This phenomenological perspective offers new avenues for understanding how human factors shape the success of airport operations during high-traffic periods.

The findings of this study resonate with previous research on workplace stress and emotional labor, particularly in high-pressure environments. For instance, studies by Grandey (2000) and Hochschild (1983) have explored the emotional labor involved in customer service roles, emphasizing how employees manage their emotions in the face of external pressures. In the context of airport operations, the emotional and psychological strain identified in this study mirrors these findings, highlighting the toll that managing passenger expectations and operational demands can take on staff. Furthermore, the use of coping mechanisms, such as team collaboration and personal well-being practices, aligns with previous research by Lazarus and Folkman (1984) on stress coping strategies, which suggests that social support and individual stress management techniques play critical roles in handling work-related stress. However, this study extends the literature by focusing specifically on the context of airport operations, which is characterized by unique stressors, including the unpredictability of passenger flow and the complexity of security and safety protocols.

Implications of Findings

The findings of this study offer both theoretical and practical insights into the challenges faced by airport staff during high-traffic periods. From a practical standpoint, the identification of emotional and psychological stress, along with the coping mechanisms used by staff, suggests that airport management should prioritize employee well-being and provide more support during peak times. This could include initiatives such as mental health resources, stress management programs, and fostering a stronger culture of teamwork to enhance emotional resilience. In a broader social context, these findings reflect the growing recognition of emotional labor across various service industries, emphasizing the need for systems that not only optimize technical performance but also acknowledge the emotional

needs of employees. These insights can inform policies aimed at improving working conditions for airport staff, ensuring that their emotional health is given as much attention as operational efficiency.

Limitations of the Study

While this study provides valuable insights, it also has several limitations that may affect the generalizability of the findings. First, the sample size of 12 participants, although sufficient for a phenomenological study, may not fully represent the diverse experiences of all airport staff across different locations and airports. The context-specific nature of the research, focused on one airport or a specific region, limits the ability to generalize the results to global airport environments. Additionally, the reliance on self-reported data, while providing rich, subjective insights, may also be influenced by individual biases or memory recall issues. Future studies could expand the sample size and incorporate diverse airport settings to enhance the applicability of the findings across different regions and operational contexts.

Prospective Directions for Future Research

This study opens several avenues for future research. One potential direction is to investigate the impact of organizational support systems, such as employee training or management strategies, on the ability of airport staff to cope with the stress of high-traffic periods. Furthermore, research could explore the relationship between employee well-being and passenger satisfaction, providing insights into how the emotional health of airport personnel affects overall service quality. Longitudinal studies could also examine whether the coping strategies identified in this study are sustainable over time or whether they evolve as airport operations and technologies change. These avenues for future research would further enhance our understanding of the human aspects of airport operations, helping to shape better practices for both staff and passengers.

CONCLUSION

This study explored the challenges and experiences of airport staff in managing increased air traffic during peak periods, addressing a gap in the existing literature on the emotional and psychological aspects of their work. The findings highlight the significant stress and pressure faced by staff, alongside the coping mechanisms, such as teamwork and personal well-being strategies, that help them navigate these challenges. These results contribute to a deeper understanding of the human factors influencing airport operations, which have often been overlooked in studies focusing solely on logistics or technology. By focusing on the lived experiences of airport personnel, this research offers valuable insights into how emotional resilience and interpersonal support can enhance operational efficiency.

From a policy and practice perspective, the findings suggest the need for structured emotional resilience training programs tailored for airport staff, especially those in high-stress operational roles. Human resource departments should consider integrating regular mental health check-ins, peer support networks, and stress management workshops into standard employee support systems. Additionally, airport management could implement organizational change strategies that promote transparent communication, role clarity, and equitable workload distribution during peak times. These interventions not only support staff well-being but also contribute to sustained service quality and operational continuity. Future research could expand on these findings by evaluating the effectiveness of such interventions in diverse airport settings and examining how organizational culture shapes the emotional coping capacity of personnel. This could provide a more holistic view of the factors that contribute to the success of airport operations and the overall passenger experience.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

- Brough, P., Dollard, M. F., & Tuckey, M. R. (2014). Theory and intervention work–stress perspectives: Strengthening the evidence for occupational health psychology. *International Journal of Stress Management*, 21(3), 227–239. <https://doi.org/10.1037/a0037990>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Deery, M., & Jago, L. (2015). Revisiting talent management, work-life balance and retention strategies. *International Journal of Contemporary Hospitality Management*, 27(3), 453–472. <https://doi.org/10.1108/IJCHM-12-2013-0538>
- Grandey, A. A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, 5(1), 95–110. <https://doi.org/10.1037/1076-8998.5.1.95>
- Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. University of California Press.
- Kim, H. J., & Lee, S. Y. (2012). Emotional labor and burnout in the hospitality industry. *International Journal of Hospitality Management*, 31(4), 1101–1109. <https://doi.org/10.1016/j.ijhm.2012.01.009>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- McMillan, K., & Weyers, J. (2011). *How to write dissertations and project reports*. Pearson Education.
- Moustakas, C. (1994). *Phenomenological research methods*. SAGE Publications.
- Salas, E., Reyes, D. L., & McDaniel, S. H. (2018). The science of teamwork: Progress, reflections, and the road ahead. *American Psychologist*, 73(4), 593–600. <https://doi.org/10.1037/amp0000334>
- Smith, A., & Lazarus, R. (1993). Appraisal components, core relational themes, and the emotions. *Cognition & Emotion*, 7(3-4), 233–269. <https://doi.org/10.1080/02699939308409189>
- Smith, M. J., & Carayon, P. (2020). Work organization, stress, and health. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (2nd ed., pp. 89–123). American Psychological Association. <https://doi.org/10.1037/12169-005>
- Van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. State University of New York Press.
- Williams, A. M., & Baláž, V. (2021). Tourism risk and uncertainty: Theoretical reflections. *Journal of Travel Research*, 60(6), 1231–1246. <https://doi.org/10.1177/0047287520936994>