

https://dspace.org/

Psychological wellbeing, Organisational support, and Job Satisfaction in Aviation professionals in South Africa

Mohottalalage, Isira Jayamanna

2024-05

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/42636

Mohottalalage, Isira Jayamanna. (2024). Psychological wellbeing, Organisational support, and Job Satisfaction in Aviation professionals in South Africa. [Masters dissertation PhD thesis, University of the Witwatersrand, Johannesburg]. WIReDSpace. https://hdl.handle.net/10539/42636

Downloaded from a DSpace repository. https://dspace.org/

PSYCHOLOGICAL WELL-BEING, ORGANISATIONAL SUPPORT, AND JOB SATISFACTION IN AVIATION PROFESSIONALS IN SOUTH AFRICA

Isira Jayamanna Mohottalalage

SUPERVISOR: FIONA DONALD

STUDENT NUMBER: 2210934

University of Witwatersrand

Psychological Well-Being, Organisational Support, and Job Satisfaction in Aviation Professionals in South Africa.

May 2024

Isira Jayamanna Mohottalalage

2210934

Supervisor: Prof. Fiona Donald

Declaration

A research report submitted to the Faculty of Humanities, University of Witwatersrand. In partial fulfilment of the requirements for the degree of Masters of Arts by Coursework and Research in Organisational Psychology. Examination submission: March 2024. Final Submission: May 2024.

I declare that this research report is my own, unaided work. It has not been submitted for any degree at any other academic institution or published in any form.

IJM

Signed: Isira Jayamanna Mohottalalage

Date: 30th May 2024

Contents

Abstract 3
Chapter 1: Introduction 5
1.1. Introduction and rationale 5
1.2. Research aim 8
Chapter 2: Literature Review 9
2.1. Introduction 9
2.2.1 Psychological Well-Being of Aviation employees 11
2.2.2. Why is psychological well-being important? 12
2.2.3. Psychological wellbeing of Aviation professionals in relation to Covid-19 13
2.3. Organisational support 15
2.4. Job Satisfaction 17
2.4.1. Work-related stress (WRS) 17
2.4.2. Consequences of Work-related Stress and Low Job Satisfaction 18
2.5 Hypotheses 20
2.5.1 Introduction 20
2.5.2 Hypotheses 20
Chapter 3: Methodology 21
3.1 Introduction 21
3.2 Research Design 21
3.3 Sample and Sampling Technique 21
3.4 Instruments 22
3.5 Procedure 24
3.6 Ethical Considerations 24
3.7 Data Analysis 24
Chapter 4: Results 26
4.1. Introduction 26
4.2. Descriptive Statistics 26
4.3. Assumption Testing 27
4.4. Hypothesis Testing 28
4.5. Summary of Results 30
Chapter 5: Discussion & Conclusion 31
5.1. Introduction 31
5.2. Addressing the hypotheses 32

5.3. Summary of Findings 33
5.4. Theoretical Frameworks 34
5.5. Practical Implications 37
5.6. Limitations and Future research 39
5.7. Conclusion 42
REFERENCE LIST 46
Appendices 55
Appendix A: Access Request Letter 55
Supervisors 56
Appendix B: Participant Information Sheet (PIS) 57
Appendix C: Consent Form 58
Appendix D: Biographical questions 59
Appendix E: Psychological well-being scale 61
Appendix F: Organisational support scale 62
Appendix G: Job satisfaction scale 63
Appendix H: Ethics Clearance Certificate 64

Abstract

The COVID-19 pandemic significantly disrupted the aviation industry, introducing new stressors for employees. This study examined relationships between psychological wellbeing, organizational support, and job satisfaction among 38 South African aviation professionals during the post-pandemic recovery period. Quantitative survey data was analysed using correlational and multiple regression techniques. Results revealed positive associations between organizational support, psychological wellbeing, and job satisfaction. In the multiple regression model, organizational support emerged as the strongest predictor, explaining over a quarter of variance in job satisfaction ($\beta = .52$, $p < .001$). This highlights its crucial buffering capacity amid acute pressures. Psychological wellbeing also exhibited a robust positive relationship with job satisfaction ($\beta = .43$, $p < .01$), emphasizing the importance of personal resources and positive appraisals for fulfilling work. Together, organizational support and psychological wellbeing significantly predicted job satisfaction, indicating their joint salience. Findings align with the job demands-resources model, with organizational and personal resources helping mitigate pandemic-related demands to sustain satisfaction and performance. Practical implications point to investing in supportive cultures, mental health provisions, and work-life balance policies to alleviate COVID-related strains as aviation companies rebuild.

However, limitations including the small sample size warrant caution in generalizing results. Addressing methodological constraints through expanded samples, longitudinal tracking, qualitative data, controlled experiments, and cross-national comparisons offers critical directions for subsequent research on optimizing occupational wellness in aviation during post-pandemic transitions.

Chapter 1: Introduction

1.1. Introduction and rationale

The aviation industry worldwide has faced immense challenges due to the COVID-19 pandemic. Travel restrictions and quarantine measures led to a dramatic drop in air travel, causing major financial losses and operational disruptions (Kim et al., 2021). Airline work-related stressors have become an increasingly attractive topic between researchers due to the severe consequences and implications they may have at both individual and organisational level such as decreased job performance, psychological wellbeing, and job satisfaction (which is of particular relevance to this study).

With the backdrop of the post-Covid-19 pandemic context, airline employees, in particular, have experienced higher levels of emotional and physical distress as a result of the many macro/micro factors that severely and negatively impacted the survival and functioning of aviation industry as a result of the pandemic (Kim et al., 2021). During the Covid-19 pandemic, the grounding of the flights for extended periods of time (due to the high-risk of the virus transferal in the aviation industry which resulted in travel bans and shutdowns) caused significant financial losses and difficulties to not only the aviation organisations, but also to the employees. The Covid-19 pandemic posed unprecedented challenges for the aviation workers as several employees were subjected to retrenchments, furloughs, pay-cuts, and drastic changes in their work setting because of the crisis (Cozza et al., 2021; Kim et al., 2021; Troyer & Bidaisee, 2022). According to Air Transport Action Group (2021), there has been an estimated 50% drop in jobs globally that are normally supported by the aviation industry (from 87.7 million to 43.8 million), and a 51% drop in jobs in Africa (from 7.7 million to 3.8 million) where an estimate of 2.3 million jobs have been lost since the onset of Covid-19. As such, previous studies have shown that the pandemic is the overarching source of an increasing work-related stress, anxiety as well as a decrease in motivation as workers feared loss and abandonment in the aviation industry (Cahill et al., 2023). Thus, for this study at hand, the Covid-19 pandemic is explored as a contextual factor and is not due for assessment.

Furthermore, the consequences of Covid-19 related structural and financial losses had aviation professionals faced with overwhelming uncertainty regarding job insecurity and job loss. For example, according to Kim et al. (2022), the airline industry in Hong Kong (specifically, Cathay Pacific employees) were forced to undergo employee pay cuts of 20% up to 30% while having to lay off 8,500 employees posts. The Covid-19 pandemic acted as a direct amplifier to work-

related stress factors as the aviation industry suffered dramatic financial and structural losses which led to many employees harbouring negative feelings such as anxiety and depression that affect their wellbeing.

As there has been a considerable impact on the global aviation industry, South Africa faced similar, if not worse, challenges within their aviation industry due to several South African airlines that were already struggling financially even before the onset of the pandemic. Since the end of 2019 (pre-pandemic), SA Express and ComAir Limited has undergone the process of being liquidated, while South African Airways (SAA) and Mango airlines is currently going through a business rescue (Campbell, 2022). Along with the massive industry disruptions already outlined, the pandemic also depleted many employees' usual coping capacities. Staff who were furloughed or laid off lost important social connections and the structure provided by their aviation careers (Kim et al., 2022). Coping theories suggest such loss of resources and prolonged adversity can gradually erode individuals' resilience over time (Hobfoll, 2001). While some employees exhibited remarkable perseverance through "proactive coping" approaches, organizational systems likely need reinforcement after being overwhelmed by the pandemic's stresses (Pearman et al., 2021). Thus stress enters this study as a contextual factor affecting of psychological well-being.

Stigma surrounding mental health issues also remains highly prevalent in the South African context (Egbe et al., 2014; Hugo et al., 2003). Moreover, aviation's historical masculine culture tends to discourage help-seeking and expressing vulnerability, posing barriers to employees accessing care (Santilhano, 2018). However, the serious impacts of the pandemic may be gradually shifting attitudes. Supportive organizational interventions focused on assisting struggling staff, promoting acceptance, and providing accessible counselling or peer support services are critically needed across the industry.

In addition to examining work stress and wellbeing, this study will investigate several potential mediating and moderating factors. For instance, employees' job satisfaction and perceived organizational support may mediate relationships between work stress and outcomes like burnout or turnover intentions. Work arrangements like job security, full-time versus part-time status, and years employed in the industry could potentially moderate the impacts of work stress. Exploring these nuanced relationships will provide deeper insights into how aviation companies can tailor support initiatives to address employees' specific needs during the post-pandemic recovery period.

South Africa has a long way to go in the recovery of the industry, where a large issue lies with the government's negligence of the two air service councils (domestic and international) during the pandemic resulted in the expiration of those councils. As a result, local airlines were unable to expand their operations by launching new routes or increasing their services on existing routes. Although new councils have been appointed, there are considerable backlogs of applications waiting to be processed and it is expected that clearing these backlogs will be a time-consuming process (Campbell, 2022). However, according to Walsh et al. (2023), IATA believes that the African aviation industry will recover by 2025/2026 compared to a 2023 recovery by the industry leaders in North America.

Given the challenges faced by the aviation industry in South Africa in the last few years, it is possible that aviation employees are experienced reduced psychological well-being., The psychological wellbeing of aviation employees is important due to its link to safety in this high-risk industry. Previous research concentrates on aviation industry personnel who presently retain employment. Due to the pandemic, there are those who have been rehired or have found new positions, and as aforementioned, the industry has not fully recovered to pre-pandemic levels of operation. Consequently, employees may still be facing psychological challenges and job insecurity (Campbell, 2022; Kim et al., 2021; Troyer & Bidaisee, 2022). Furthermore, specific aviation jobs require extensive training and examinations, which could be especially difficult for individuals who have been unable to practice their roles because of the pandemic. If an employee was hired by another organization, they may also need to learn new skills, be trained on different aircraft, or become licensed for alternative routes or responsibilities. It is possible that employees may have to fly older aircraft, increase flying hours, and take on more obligations than they are accustomed to.

Therefore, this study will contribute to filling these gaps by providing empirical data on the work-related stress and psychological well-being (in the context of the pandemic) of aviation professionals in the South African Aviation industry and how work-related stress and psychological well-being relates to their job satisfaction. Additionally, the study aims to explore the role potential of organisational support in mitigating this impact. Overall, this study has the potential to inform strategies for reducing work-related stress and improving job satisfaction among aviation professionals during and after the Covid-19 pandemic.

1.2. Research aim

This study aims to address gaps regarding aviation employee wellbeing during the post-pandemic recovery period through assessing work stress, job satisfaction, organizational support, and psychological wellbeing in South African aviation professionals.

Specifically, the study will examine:

1. Relationships between job satisfaction, perceived organizational support, and psychological wellbeing.
2. Give us context and insight on how the COVID-19 pandemic influenced psychological wellbeing and attitudes among aviation professionals and the recovery of the industry.

This empirical investigation will help elucidate persisting pandemic impacts on aviation professional experiences and identify organizational factors that may alleviate work stress and promote healthy functioning. Findings can inform policies and interventions to support employee wellbeing, performance, and retention within South African aviation companies recovering from COVID-19. It is important to note that the Covid-19 pandemic is merely used for context and the understanding of the important backdrop related to the concepts covered in this study.

Chapter 2: Literature Review

2.1. Introduction

The aviation industry worldwide has faced immense challenges due to the COVID-19 pandemic. These pressures also significantly impacted employees, with many aviation personnel dealing with job insecurity, changing roles, health risks, and work-life balance challenges (Choi et al., 2022; Görlich & Stadelmann, 2020).

In particular, the pandemic's negative effects on the aviation industry had significant implications for employee psychological wellbeing, organizational support, and job satisfaction - critical focus areas of the present research. As the industry moves into the post-pandemic recovery period, lingering impacts on these occupational factors warrant investigation given their influence on workforce stability, performance, turnover intentions, and travel safety (Cahill et al., 2021; Kim et al., 2021). As stated in the rationale, with massive reductions in flights, operations, and revenue during COVID-19, many aviation employees faced furloughs, salary cuts, and job losses (Troyer & Bidaisee, 2022). These pandemic-related disruptions likely increased work stress and strained psychological wellbeing for personnel managing shifting demands alongside heightened uncertainty about the future (Cahill et al., 2023). Studies during 2020-2021 documented rises in clinically concerning anxiety, depression, and emotional exhaustion among aviation workers compared to pre-COVID baselines, tied to dramatic job instability and perceived lack of organizational support (Cahill et al., 2023; Görlich & Stadelmann, 2020).

However, research examining current occupational experiences and attitudes remains limited as the industry moves into the post-pandemic recovery period. While acute psychological impacts have been established during 2020-2021, lingering effects and trajectories into the present day are less clear. This is particularly relevant within the South African context, where major domestic airlines faced pre-existing financial struggles exacerbated by COVID-19 (Campbell, 2022). With some carriers undergoing liquidation and business rescue even before the pandemic, COVID-related furloughs and operational cutbacks likely amplified uncertainty and job dissatisfaction for local aviation personnel (Campbell, 2022).

This study aims to address gaps regarding work stress, wellbeing, organizational support, and job satisfaction among South African aviation employees during the post-pandemic rebuilding phase. It will provide empirical insights into these critical occupational factors among aviation

professionals at a time of protracted restoration and lingering vulnerabilities in the domestic industry. Findings can elucidate any persisting negative impacts of the COVID-19 crisis on aviation professional attitudes and functioning while also identifying organizational levers to enhance support and stability. Investigating these areas will help determine whether pandemic-related strains endure which may benefit from organizational interventions. It will also reveal how enhancing perceived support and employee wellbeing could improve job satisfaction and performance as the aviation industry climbs towards post-COVID stability.

While the pandemic clearly amplified pressures, many pre-existing challenges have long confronted aviation professionals psychological wellbeing. The high-risk, demanding nature of aviation occupations inherently involves heavy workloads, irregular schedules, frequent time zone changes, and extended time away from support systems (Johnson, 2020; O'Hagan et al., 2018). These factors can increase fatigue, sleep disruption, and general life stress even without considering pandemic influences (McNeely et al., 2014; Wingelaar-Jagt et al., 2021). Nonetheless, substantive gaps remain regarding empirically investigating current occupational experiences and relationships between key variables among South African aviation employees specifically. The majority of existing research on associations between work stress, wellbeing, organizational support, and job satisfaction in aviation professionals has been conducted internationally in North American and European contexts, with limited focus on the unique local environment (Cho et al., 2014; Cahill et al., 2023; Wu et al., 2016). This study will provide original evidence tailored to the South African situation to inform organizational initiatives aimed at monitoring and supporting aviation professionals during the post-pandemic recovery period. Findings will help address gaps for a critical domestic workforce fulfilling indispensable roles in facilitating local and international air travel. Results can guide policies and interventions to reduce lingering pandemic impacts on psychological wellbeing, performance, and retention as the local aviation industry works to stabilize after profound COVID-19 disruptions.

In summary, this research comes at a crucial time amidst the complex rebuilding process as South African aviation seeks to re-establish operations and aid workforce wellbeing following immense pandemic adversities. Investigating work stress, organizational support, psychological health, and their relationships to employee attitudes provides valuable empirical insights to inform practices supporting this indispensable occupational sector through an extended climb back towards stability. The next chapter will review key literature on the core concepts examined and their significance for aviation personnel during these taxing recent

years in South Africa and globally. This literature review aims to critically evaluate previous academic works on how the pandemic influenced the relationships between psychological wellbeing, organisational support and how job satisfaction was affected for aviation employees, specifically, flight deck crews (pilots and cabin crew) and ATC/ATC techs. Firstly, the following section will aim to address the concepts, definitions, similarities and differences between psychological wellbeing, organisational support and job satisfaction.

2.2.1 Psychological Well-Being of Aviation employees

Psychological wellbeing is commonly conceptualized as a state of happiness, life satisfaction, contentment, and positive functioning (Ryff & Keyes, 1995; Ryff & Singer, 2008). However, wellbeing encompasses more nuanced elements beyond just positive emotions. Adler et al. (2017) define wellbeing holistically as both the absence of negative human experiences like anxiety, depression, and fear, as well as the presence of more positive experiences like engagement, satisfaction, and self-actualization. Wellbeing is recognized as largely a subjective process involving evaluations of one's life circumstances and emotional states. These appraisals can be influenced by many factors that may be hedonic (pleasure-focused) or eudemonic (goals-focused) in nature (Adler et al., 2017). For instance, feeling satisfied with one's job and experiencing positive emotions at work would fall under hedonic wellbeing, while having a sense of meaning and purpose in one's work would fall under eudemonic wellbeing. This multidimensional definition provides a more comprehensive understanding of wellbeing as it covers both mitigating negative experiences and promoting positive experiences – consistent with the goals of the present study.

Mental health is closely tied to wellbeing and involves effectively coping with life's stressors (Görlich & Stadelmann, 2020; Kim et al., 2021). Poor mental health, such as clinically concerning levels of anxiety or depression, negatively impacts subjective wellbeing. However, wellbeing is a distinct, broader concept encompassing additional elements like positive relationships, purpose, optimism, and self-actualization. Achieving wellbeing involves both sustaining good mental health and experiencing other forms of positive functioning. For example, an aviation employee may have minimal symptoms of depression or anxiety, indicating decent mental health, but may still feel dissatisfied with their work-life balance. This demonstrates the importance of assessing wellbeing in a multifaceted way.

Among aviation personnel specifically, wellbeing challenges are common even pre-pandemic due to the demanding, high responsibility nature of their work, as well as disruptions from shiftwork and frequent time zone changes (Johnson, 2020; Smith 2021). Studies show

clinically elevated rates of depression, anxiety, fatigue, and sleep disturbance, especially among pilots and cabin crew (Cahill et al., 2021; McNeely et al., 2014; Wu et al., 2016). For example, a study surveying over 1500 pilots across 50 countries prior to COVID-19 found 12.6% reported symptoms consistent with major depressive disorder based on a validated screening tool (Wu et al., 2016). The study sampled pilots from aviation organizations predominantly in North America, Europe, and Australia, limiting generalizability across African cultures. Nonetheless, these concerning mental health patterns suggest issues with psychological functioning that are likely tied to high levels of work stress.

Research clearly identifies work stress as a key factor impacting mental health and wellbeing in aviation occupations. A study by Cahill et al. (2021) indicated substantial evidence of mental health issues among flight crews predating the pandemic, reporting a high prevalence of depressive disorders mainly arising from work-related stressors. In addition, work stress is one of the most frequently cited reasons for pilot and air traffic controller license loss, which can be career-ending (Cahill et al., 2021). This highlights how aviation work stress may profoundly impact both clinical mental health symptoms and functioning critical to retaining one's job.

However, the connections between work stress, mental health, and wellbeing in aviation warrant further elucidation. Some researchers have conceptualized work stress and wellbeing simply as opposite ends of a continuum, with higher stress eroding wellbeing (Cahill et al., 2021). Yet few studies have empirically tested these relationships or examined how different facets of wellbeing may be uniquely impacted by work stress. For instance, work stress could potentially influence hedonic aspects like job satisfaction more than eudemonic aspects like purpose, or affect relationships and engagement more than optimism or self-esteem.

Lastly, wellbeing is determined by both negative (strain) factors and positive (resource) factors (Adler et al., 2017). Investigating both these types could provide a more holistic understanding of aviation employee wellbeing during the post-pandemic recovery period. For example, assessing work stress levels along with potential buffers like organizational support and job satisfaction could offer insights into how to mitigate enduring pandemic-related strains and promote positive functioning.

2.2.2. Why is psychological well-being important?

The strong connection between overall health and psychological well-being is well-documented (Manderscheid et al., 2009; WHO, 2013). Extensive research supports the positive impact of well-being on physical health, yielding various physiological advantages. These

include enhanced longevity and a decrease in symptomatic health issues, improved endocrine function, reduced stress levels, a bolstered immune response, diminished inflammatory reactions, and a lower incidence of cardiovascular ailments and musculoskeletal problems (Dickson-Swift et al., 2014; Manderscheid et al., 2009). Notably, the reductions in cardiovascular disease and improvements in neurological functioning are directly associated with factors such as positive relationships, a sense of purpose, and opportunities for personal growth (Manderscheid et al., 2009). Moreover, there is a wealth of consistent and compelling evidence highlighting the broader influences on psychological well-being, encompassing personality traits, family involvement, and social interactions, which may have implications for Occupational Health and Safety (OHS) in the workplace. Psychological well-being is indicated by reduced levels of stress, anxiety, and depression, the cultivation of positive attitudes, heightened self-esteem and confidence, greater self-acceptance, increased engagement, the fostering of trusting relationships, and a notable decrease in job-related strain and burnout (Dickson-Swift et al., 2014; Idris et al., 2012; Ryff, 2013; Shin et al., 2022; WHO, 2013).

Psychological wellbeing issues may come from different work-related stressors even if aviation jobs are highly procedural and structured. As briefly touched on earlier, one of the prominent causes of mental health challenges is fatigue (Wingelaar-Jagt et al., 2021). Many aviation employees (air crew in particular) work long shifts that often exceed 8 hours, which are regulated internationally by aviation authorities to have a maximum length of 14 hours in a 24-hour period (Civil Aviation Safety Authority, 2021). Working these long shifts and being exhausted by the time they finish, but still needing to maintain the highest level of focus and alertness in their jobs, can lead to stress and anxiety (O'Hagan et al., 2018). Contributing to this fatigue from long working shifts is the extended time away from personal support systems to mitigate the effects of stress and fatigue such as family (Wingelaar-Jagt et al., 2021). As these pre-Covid considerations of factors affecting the psychological wellbeing of aviation employees, we can gain a deeper understanding how Covid-19 has potentially influenced these factors.

2.2.3. Psychological wellbeing of Aviation professionals in relation to Covid-19

The Covid-19 pandemic significantly disrupted the aviation industry worldwide, leading to layoffs, furloughs, and heightened concerns about health and safety risks among aviation professionals (SKYbrary Aviation Safety, 2021). Studies conducted during the early stages of the pandemic in 2020 found decreased mental health among cabin crew related to job

insecurity, fear of the future, and inability to work (Görlich & Stadelmann, 2020; Kim et al., 2021). Commercial aviation has been steadily recovering globally and domestically since pandemic restrictions eased in 2021, though the road to recovery has had its share of turbulence (International Air Transport Association, 2022).

While air travel demand has been rebounding, airlines have aimed to rehire and increase staff to rebuild workforce capacity. However, pilot and cabin crew shortages have persisted in some regions, causing continued disruptions to flight schedules and operations (International Air Transport Association, 2022). Uncertainty also remains regarding fuel costs, inflation, and potential future Covid waves this winter. Financial recovery remains uneven across global airlines, with North American carriers rebounding quickest while Asia-Pacific airlines lag behind (International Air Transport Association, 2022). Domestically, major South African airlines have restored near pre-pandemic staffing levels, but the variant-driven fifth wave this past June-July caused a dip in travel bookings and air traffic, highlighting lingering vulnerability (Broom, 2022).

Recent surveys indicate mixed results on current wellbeing of aviation professionals compared to pre-pandemic levels. While Cahill et al. (2023) found significantly lower self-reported physical and mental health in 2022 compared to pre-pandemic, the factors contributing to this decline are unclear. Only 77% of aviation personnel surveyed in 2021 felt their wellbeing was negatively impacted by Covid-19, down from 68% in 2020, suggesting some improvements over time (Cahill et al., 2023). However, Pursell et al. (2022) found only a partial recovery in mental health scores among pilots and cabin crew surveyed between 2020 and 2022, indicating potential residual pandemic effects. Concerns may linger regarding perceived health risks, continued economic uncertainty in the aviation sector, potential residual effects on social and family relationships, and work-life balance from ramping up flight schedules so quickly post-pandemic (Lee et al., 2023).

Interestingly, a study by Williams & Edwards (2022) suggests the Covid pandemic may have sparked some positive psychological changes among aviation professionals as well. Many respondents reported strengthening relationships with loved ones during lockdowns, taking up new hobbies and self-care practices, and gaining renewed appreciation for their jobs and passengers. However, the same study found increased rates of emotional exhaustion and cynicism related to work, indicating the positive effects may be overshadowed by significant occupational stress. Further research is needed to understand how psychological wellbeing of

aviation professionals may have evolved since the height of the Covid-19 pandemic's disruption. While severe acute impacts on mental health have been well documented during 2020-2021, few studies have examined how these effects may have lingered, changed, or perhaps even improved during the post-pandemic recovery period up to the present day. Comprehensive investigation can elucidate any persisting or emergent factors influencing aviation professional mental health as commercial aviation continues to rebuild. Findings would provide meaningful insights to inform policy and organizational initiatives aimed at supporting airline staff health, performance, job satisfaction and work-life balance in the current environment.

2.3. Organisational support

Organisational support refers to employees' global beliefs concerning how much the organization values their contributions and cares about their wellbeing (Eisenberger et al., 1986). Perceived organizational support is positively associated with various psychological wellbeing outcomes including reduced stress, improved mental health, higher job satisfaction, and stronger organizational commitment (Kurtessis et al., 2017).

Aviation companies can promote perceived organizational support through creating a positive culture prioritizing employee wellbeing alongside organizational success (Mullins, 2005). Strategies include transparent communication, providing adequate resources and training, recognizing employee achievements, fostering social support networks, and offering counselling or wellness programs (Mullins, 2005; SHRM, 2022). Leaders play a key role through supportive supervision, conveying care for staff needs, listening to concerns, and modelling healthy behaviours (Kurtessis et al., 2017). While the aviation industry faced immense challenges during the Covid-19 pandemic, some evidence suggests organizational support systems were not adequately leveraged to protect employee wellbeing. In a large survey of aviation personnel during Covid-19, over 90% of respondents reported needing more organizational support to maintain wellbeing and mental health from 2020-2021, regardless of retrenchment status (Cahill et al., 2023). Another study indicated 80% of aviation staff felt wellbeing was not an organizational priority during the pandemic (Cahill et al., 2023).

Qualitative data provides more context on these perceptions. Aviation employees often reported feeling expendable and lacking adequate communication or transparency from leadership during the peak of the pandemic's disruption (Smith et al., 2021). Furloughed pilots described minimal contact and support from airlines, fuelling anxieties about losing career identity, skills,

and community (Walker, 2022). Such perceived lack of organizational care has likely contributed to the decreases in mental health documented among aviation employees during this period (Görlich & Stadelmann, 2020; Kim et al., 2021). However, it is important not to overgeneralize about organizational support levels across the complex and heterogeneous aviation industry. Efforts to promote staff wellbeing likely varied significantly depending on distinct corporate cultures and leadership approaches (Mullins, 2005). Some aviation companies have historically prioritized employee welfare more than others, and may have better weathered the pandemic's challenges.

For instance, researchers describe Air Navigation Service Provider (ANSP) as having strong existing wellness programs, resilience training, and positive supervisor relationships – a foundation which enabled effective crisis psychological interventions when Covid-19 hit (Marais et al., 2020). Pilots from an airline known for supportive labour relations reported less mental health declines during the pandemic relative to peers at other carriers (Alderson, 2022). Future research should further investigate organizational and leadership factors that may have buffered against pandemic-related psychological distress for aviation staff.

Long before Covid-19, some have argued the masculine culture in aviation discouraged openly discussing mental health challenges, contributing to stigma (Vermeulen & Mitchell, 2007). The "right stuff" mentality valuing extreme self-reliance remains prevalent, potentially deterring help-seeking (King et al., 1997). However, recent years have seen efforts to shift these attitudes through employee assistance programs, mental health awareness campaigns, peer support, and changes to medical licensing policies (Cahill et al., 2022; Hunt, 2022). While cultural biases may persist in some areas, evidence suggests the pandemic's serious impacts have reduced stigma and increased support for staff psychological wellbeing across much of the industry (Mullins, 2022). Pilots report greater willingness to access counselling and advocate for mental health after the isolating experience of lockdowns (Hunt, 2022). Management at many airlines have publicly prioritized employee emotional recovery along with operational recovery post-pandemic (CAPA, 2021).

To summarize, organizational support and positive wellbeing culture are linked to better mental health outcomes among aviation employees. The Covid-19 pandemic's acute psychological toll on aviation professionals highlights the need for aviation companies to critically evaluate their staff support systems. Proactive efforts to promote perceived organizational caring, transparent

communication, health resources, and work-life balance may help address any wellbeing needs that persist into the post-pandemic recovery period.

2.4. Job Satisfaction

Job satisfaction is a sought-after internal goal of all organisations and is defined as a psychological mechanism in which employees perceive a level of personal satisfaction stemming from behaviours and activities in achieving work-related goals (Van Gordon et al., 2014). Job satisfaction is of integral importance as employees who feel content and satisfied with most aspects of their work may feel more motivated and engaged, which consequently increases job productivity, job performance and prosocial behaviour within the workspace (Chiang & Wu, 2014; Kim et al., 2022; Nahrgang et al., 2011).

In a study on airline and military pilots in 2022, it was found that the Covid-19 pandemic severely disrupted the level of job satisfaction of airline pilots due to factors such as pay cuts, skill-degradation and job insecurity (Kioulepoglou & Blundell, 2022). Interestingly however, the military pilots did not experience the same level of disruption to their job satisfaction levels, in fact, their job satisfaction showed an increase during the pandemic. This difference in job satisfaction levels was attributed to the fact that the military is state-funded and were not as affected financially as the airline industry which did not result in anxiety-inducing factors such as pay cuts, job insecurity and career stagnation (Kioulepoglou & Blundell, 2022). This finding is concurrent with the previous literature suggesting that organisational support can act as moderator to the level of job satisfaction experienced. This is also supported by a study conducted by Shin et al. (2022) which found that salary reduction, career stagnation, social perception at work, and employment security as psychological anxieties and work-related stress (caused by the Covid-19 pandemic) significantly affected the self-esteem and job satisfaction of flight attendants.

2.4.1. Work-related stress (WRS)

Work-related stress (WRS) stems from excessive demands and stressors in one's job (Hargrove et al., 2011; Lu & Kao, 2013). Work-related stress is categorized into contextual factors like hazardous work conditions (e.g., toxic culture, poor interpersonal relations) and content factors referring to demanding job tasks (e.g., high workload, complex equipment) (Cahill et al., 2023; Mansoor et al., 2011). Research frequently examines WRS through the job demands-resources model, which posits that high demands and limited resources cause strain, while sufficient resources can buffer demands' negative effects and enhance motivation (Bakker & Demerouti,

2007). For aviation personnel specifically, studies show WRS negatively impacts engagement, safety behaviours, and procedural compliance, while resources like workplace support promote worker satisfaction and performance (Görlich & Stadelmann, 2020; Nahrgang et al., 2011). A pre-pandemic study of pilot burnout found work and personal resources moderated the impacts of high job demands (Demerouti et al., 2019). While not contextualized to the pandemic, this provides insights into how organizational support could potentially alleviate COVID-related work stress.

The COVID-19 pandemic introduced new psychosocial stressors for aviation employees, including health risks, job instability, workload changes, and work-life balance challenges (Choi et al., 2022; Görlich & Stadelmann, 2020). However, research on WRS during the pandemic recovery period remains limited. Further investigation of aviation employees' current working conditions, demands, and resources would provide context on any ongoing impacts of COVID-19 related stresses. Identifying resources that help mitigate WRS could inform organizational initiatives to support worker wellbeing and performance as the industry rebuilds.

2.4.2. Consequences of Work-related Stress and Low Job Satisfaction

Prolonged work stress and low job satisfaction can negatively impact employees' psychological wellbeing and performance in many ways (Hargrove et al., 2011; Lu & Kao, 2013). Common consequences include reduced work engagement, increased turnover intentions, decreased productivity, and worsened mental health symptoms like anxiety or depression (Chen & Kao, 2011; Hayes et al., 2020; Kim et al., 2021).

For aviation employees specifically, studies conducted prior to the COVID-19 pandemic found that higher reported work stress among cabin crew was associated with greater turnover intentions, often stemming from burnout and job insecurity (Chen & Kao, 2011; Cho et al., 2014). A study by Kim et al. (2021) found that cabin crew members who reported higher work-related stress were more likely to express intentions to leave their airline jobs due to factors such as emotional exhaustion and concerns about job security in the future. The authors collected survey data in 2016 from over 300 cabin crew at a major Asian airline to assess connections between work stress, job satisfaction, and turnover intentions. They found that crew members' perceptions of high job stress significantly predicted lower job satisfaction and stronger desires to quit. Mediation analysis showed this relationship was partially explained by crew members experiencing burnout and worries about job insecurity as a result of chronic work stress (Kim et al., 2021).

During the peak of the pandemic's disruption in 2020, additional stresses exacerbated these issues. A study by Cahill et al. (2021) surveyed over 500 air transport workers globally in 2020 about their work experiences during COVID-19. Results showed that 69% of aviation personnel reported worsened work engagement and motivation compared to pre-pandemic, while 25% felt reduced competence to perform job duties safely after returning from pandemic-related furloughs (Cahill et al., 2021). Researchers posited this decreased confidence stemmed from being away from the highly procedural aviation workplace for an extended period.

Pandemic conditions also contributed to increased prevalence of clinically significant anxiety, especially among frontline staff like pilots and cabin crew. Cahill et al. (2023) surveyed over 3000 aviation employees globally in 2020 and 2021, finding substantially higher rates of moderate to severe anxiety compared to pre-COVID baselines. Over half of respondents reported losing jobs during 2020-2021, with 40-45% stating their job loss was permanent. This dramatic rise in unemployment and job instability exacerbated employees' anxiety about the future (Cahill et al., 2023).

Other studies collected during height of the pandemic found work isolation, loss of control, shifting demands, and disrupted work-life balance negatively impacted air traffic controllers' and pilots' mental health (Paramita & Sudhartio, 2022; Shin et al., 2022). For example, a study of Indonesian air traffic controllers in 2020 found that social isolation and perceived lack of organizational support during lockdowns significantly predicted increased depression, anxiety, and stress (Paramita & Sudhartio, 2022).

These pandemic-related stresses also correlated with reductions in perceived loyalty, engagement, and helping behaviours towards airlines from both furloughed and active staff (Butali & Njoroge, 2016; Cahill et al., 2023; Kim et al., 2021). A large survey found the percentage of aviation personnel reporting high organizational engagement and willingness to go above and beyond their formal job duties declined significantly from pre-pandemic to 2020-2021 (Cahill et al., 2023). Researchers hypothesized this stemmed from feelings of being expendable and lacking support from employers during the profound industry crisis.

However, research examining current work attitudes and outcomes remains limited as the industry moves into the post-pandemic recovery period. While acute psychological impacts have been well-documented during 2020-2021, further investigation is warranted to determine whether negative consequences like high turnover intentions persist. In addition, identifying organizational and leadership initiatives that could potentially mitigate enduring work stress

effects on employee performance, motivation, and wellbeing would provide meaningful insights.

2.5 Hypotheses

2.5.1 Introduction

This chapter outlines the specific hypotheses that will be tested in the present research. These hypotheses were developed based on the theoretical foundations and prior literature reviewed earlier regarding relationships between work stress, psychological wellbeing, organizational support, and job satisfaction among aviation employees. The hypotheses aim to address the overarching research questions guiding this study.

2.5.2 Hypotheses

H1: Psychological wellbeing is significantly positively related to job satisfaction among aviation professionals in SA.

H2: Organisational support is significantly positively related to job satisfaction among aviation professionals in SA.

H3: Psychological wellbeing and Organisational support together significantly predict Job satisfaction among aviation professionals in SA.

The testing of these hypotheses will provide insights into the relationships between these key variables among South African flight crews during the post-pandemic period. The results can inform organizational initiatives aimed at monitoring and supporting employee wellbeing, perceptions of support, and job satisfaction as the aviation industry continues rebuilding.

Chapter 3: Methodology

3.1 Introduction

This chapter outlines the research methodology for this study examining relationships between work stress, psychological wellbeing, organizational support, and job satisfaction among aviation professionals in the South African aviation industry. The research design, sample, instruments, data collection procedures, ethical considerations, and data analysis plan are described.

3.2 Research Design

This study utilized a quantitative, cross-sectional, correlational survey design. Quantitative methods allow for statistical analysis of numerical data to identify patterns and test hypotheses regarding relationships between variables (Creswell, 2014). The cross-sectional approach involves collecting data at one point in time to provide a snapshot of the current situation. Correlational designs examine statistical associations between variables but do not ascertain causal links (Leedy & Ormrod, 2010). This approach was selected as an initial step to explore connections between the key variables of work stress, wellbeing, support, and satisfaction among aviation professionals during the post-pandemic period.

3.3 Sample and Sampling Technique

The target population comprises aviation professionals members currently employed by aviation companies in South Africa. This includes pilots, co-pilots, flight engineers, and flight attendants actively working on commercial aircraft. The sampling frame included staff at major passenger airlines and air cargo companies operating domestically. Private aviation employees were excluded given differences in operational models.

A non-probability purposive sampling method was used to recruit participants based on the inclusion criteria of being active commercial aviation professionals over the age of 18. Purposive sampling involves selecting participants based on characteristics that align with the study purpose (Etikan, 2016). This approach was suitable for accessing informed participants meeting the focus criteria. However, limitations include potential bias and reduced generalizability relative to probability methods. Participants were recruited through direct email invitations to staff at major domestic airlines and professional aviation organizations explaining the study and requesting voluntary participation. The final sample included 38 aviation professionals after excluding two outliers. While the small, non-random sample limits

generalizability of findings, this exploratory research nonetheless provides valuable initial evidence on the relationships of interest. However, the sample cannot be considered fully representative of all South African aviation professionals.

3.4 Instruments

Participants completed a survey with a combination of standardized scales measuring the key variables:

- Perceived Organizational Support Scale (Eisenberger et al., 1986)
- Psychological Wellbeing Scale (Ryff, 1989)
- Job Satisfaction Scale (Cammann et al., 1983)
- Work Stress Scale (House & Rizzo, 1972)

An online questionnaire/survey was distributed to the participants as the form of data collection. This study firstly extracted demographic information from the sample such as age, and gender and contextual information regarding the participants' role and employment status during the pandemic.

The psychological well-being variable was measured through the development of a Likert-type questionnaire consisting of 23 items. This scale was put together by Prof. Fiona Donald and Dr. Prevenderan Naidoo (my supervisors) for their own study. Previously validated surveys designed for assessing job satisfaction and stress were considered in the creation of the survey (see Appendix D). The surveys being considered are (1) The Perceived Stress Scale (PSS) by Cohen, Kamarck, and Mermelstein in 1983, (2) The Positive and Negative Affect Schedule (PANAS) by Watson, Clark, and Tellegen in 1988, (3) The Occupational Stress Indicator (OSI) by Dewe, O'Driscoll, and Cooper in 1991, (4) The Psychological General Well-Being (PGWB) index by Dupuy in 1984, and (5) The Maslach Burnout Inventory (MBI) by Maslach and Jackson in 1981. According to Maslach, Schaufeli, and Leiter (2001), burnout is a continual response to intense emotional and social stressors experienced in the workplace. The preliminary version of the resulting psychological well-being scale is provided in Appendix D prior to the pilot testing, and the scale is a self-made scale hence the psychometric properties of the scale itself have not yet been determined.

The organisational support variable was used and operationalised through the use of the Perceived Organisational Support scale (POS) that was developed by Eisenberger et al. (1986)

and is used to examine employee perceptions on how far the organisation is willing to go in rewarding employee efforts and caring about their employee wellbeing through job resources and support. The items that will be utilized by this study are the shortened nine-item version (Eisenberger et al., 1986) (Appendix E) of the measure and responses are obtained on a 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree. The reliability of the scale showed a Cronbach's coefficient alpha value of within the range 0.74 to 0.95 (Eisenberger et al., 1986) which is within the acceptable to excellent range and proves an reliable internal consistency. The POS scale positively correlated with job satisfaction, employee performance and organisational commitment while negatively correlating with turnover intentions, stress-in-role, and emotional exhaustion (Cropanzano et al., 1997).

The Job Satisfaction Survey (JSS) is a well-established job satisfaction instrument used to assess the employee attitudes about the job and is a questionnaire evaluating overall job satisfaction measured through 9 dimensions. The questionnaire consists of 36 items, split into 4 items for each 9 dimensions answered through a 6-Likert scale ranging from strongly disagree to strongly agree. The 9 dimensions are Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Procedures, Co-workers, Communication and Nature of work. The JSS has been commonly investigated for reliability and validity in previous literature, and the 9 sub-scales were each found to relate moderately-to-good between each other where the scales internal consistency showed a score of 0.91 for the total scale.

In a study conducted on 3,067 individuals, the average internal consistency was found to be 0.70. A smaller sample of 43 workers was observed over an 18 month period, and their internal consistency ranged from 0.37 to 0.74 (Spector, 1985). The validity of job satisfaction scales was supported by studies focusing on individual employees. An analysis of five Job Satisfaction sub-scales and some of the Job Description Index showed a correlation between co-workers and supervision, ranging from 0.61 to 0.80 (Spector, 1985).

The scale used for the measurement of the job satisfaction variable is a self-made scale hence the psychometric properties of the scale itself have not yet been determined. I am aware that this might introduce limitations on the reliability and validity of using the scale, however, reliability and validity of the scales will be determined once the data has been analyzed.

3.5 Procedure

After receiving ethics approval from the university review board, participants were recruited via direct email invitations explaining the study purpose and voluntary nature. Email addresses were obtained from cooperating airlines and industry groups who circulated the request to their staff and members.

The survey was administered online using Google Forms for ease of access, efficiency, and timely data collection. The form included an information sheet outlining the purpose, risks, benefits, confidentiality, and withdrawal policy. Participation was completely voluntary, and respondents could exit the survey at any time. Participants confirmed consent electronically on the online form before completing the survey. The estimated completion time was 15-20 minutes. The survey was initially open for one month to allow sufficient time for completion. A reminder email was sent after 2 weeks to encourage responses. The data collection period was extended by two additional weeks and multiple attempts at communication with airports and aviation WhatsApp groups to maximize the sample size.

3.6 Ethical Considerations

Several ethical considerations were addressed in the study procedures. Prior to any data collection, ethical clearance was obtained from the institutional review board at the University of Witwatersrand. This independent evaluation ensured appropriate protections were in place.

Participation was entirely voluntary. Prospective participants received a detailed information sheet outlining the study purpose, procedures, risks, benefits, and researcher contact details. This enabled an informed decision about participation. Respondents confirmed consent electronically before starting the survey. They were informed they could withdraw at any time without penalty. All data was collected anonymously without personal identifiers. Confidentiality was maintained by securely storing the anonymous responses with password encryption and restricted access. Only aggregate results are reported. There were minimal foreseeable risks, limited to potential mild emotional discomfort from reflecting on work experiences. Participants could skip any items they did not wish to answer. Benefits included contributing insights to help improve support for aviation professionals wellbeing and satisfaction.

3.7 Data Analysis

Quantitative data was analysed using IBM SPSS Statistics software version 2.0. Descriptive statistics including means, standard deviations, frequencies, skewness, and kurtosis were

calculated to characterize the sample demographics and responses on key variables. Reliability analysis was performed using Cronbach's alpha to evaluate the internal consistency of each scale measuring the main constructs. Values above .70 indicate adequate scale reliability (Nunnally, 1978).

Data was screened for outliers and assumption testing conducted prior to hypothesis testing. Assumptions of normality, homoscedasticity, linearity, independence of errors, and lack of multicollinearity were assessed. Bivariate correlational analysis using Pearson's r examined relationships between key variables. The correlation coefficient effect size indicates the strength and direction of the association. Multiple linear regression analysis determined the predictive effects of organizational support and psychological wellbeing on job satisfaction. The variance in the outcome explained by predictors was evaluated through R-squared. Unstandardized and standardized regression coefficients indicate the effect size and statistical significance of each predictor. An alpha level of .05 was used to evaluate statistical significance.

Chapter 4: Results

4.1. Introduction

The following sections outline the statistical analyses conducted to evaluate the study hypotheses regarding relationships between psychological wellbeing, organizational support, and job satisfaction in the sample of flight crew personnel. First, descriptive statistics and assumption testing results are presented to assess the suitability of the data for the planned analyses. Next, correlational analyses evaluating the relationships between the variables are reported. Finally, linear regression analyses examining the predictive effects of the independent variables on job satisfaction are described.

4.2. Descriptive Statistics

Descriptive statistics were conducted to characterize the distribution, central tendency, and dispersion of the sample data. Means, standard deviations, skewness, and kurtosis were examined for each variable. As displayed in Table 1, the sample demonstrated moderate levels of both job satisfaction (M = 2.93, SD = 0.56) and organisational support (M = 2.07, SD = 0.85). Self-reported psychological wellbeing levels were relatively high (M = 3.42, SD = 0.54).

Table 1: Descriptive statistics

Variable	M	SD	Skewness	Kurtosis
Job Satisfaction	2.93	0.56	0.07	-0.87
Organisational Support	2.07	0.85	0.71	0.27
Psychological Wellbeing	3.42	0.54	-0.18	0.23

Skewness and kurtosis values provide information about the shape and peak of the distribution. All variables exhibited reasonable normality based on skewness and kurtosis values within accepted ranges of +/- 1 and +/- 3, respectively (Westfall & Henning, 2013). This suggests the data distributions did not substantially depart from a normal bell curve, satisfying a key assumption enabling the use of parametric statistical tests in subsequent analyses.

4.3. Assumption Testing

Prior to conducting correlational and regression analyses, assumptions underlying these techniques were evaluated. A critical assumption is that the variables are approximately normally distributed in the population (Williams et al., 2013). Though commonly applied, the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality can be overly stringent in small samples (Ghasemi & Zahediasl, 2012). These tests are shown in table 2 below.

Table 2 Kolmogorov-Smirnov and Shapiro-Wilks tests for normality

Variable	Kolmogorov-Smirnov			Shapiro-Wilks		
	Statistic	df	Sig.	Statistic	df	Sig.
Job Satisfaction	0.094	38	0.200*	0.968	38	0.335
Organisational Support	0.125	38	0.141	0.929	38	0.019
Psychological Well-Being	0.067	38	0.200*	0.989	38	0.966

Note: PWB = Psychological Well-being; OS = Organisational Support

In the current study, these tests suggested non-normality for some variables. However, as noted by Elliot and Woodward (2007), minor deviations from normality are well-tolerated in regression analyses Though the Kolmogorov-Smirnov and Shapiro-Wilk tests suggested non-normality, the skew and kurtosis values for the residuals were within acceptable limits between -1 and +1, indicating no substantial deviation from normality. Given the acceptable skewness and kurtosis values observed for all variables, the distributions were judged sufficiently normal to proceed with parametric tests.

There was independence of observations as only each participant could only answer each item once. Multicollinearity was assessed through tolerance and VIF values. The tolerance values were > 0.1 (0.991) and all VIF values were < 10 (1.009), indicating no problematic collinearity between the predictors in the model. There was indication of homoscedasticity in the dataset as portrayed in a scatterplot between regression standardized residuals and regression standardized predicted values. Finally, this analysis identified two influential cases that violated the outlier assumption. These two cases were removed from the dataset, bringing the final sample size to 38 participants. Without the outliers, the assumptions of normality,

homoscedasticity, and lack of autocorrelation were satisfied more robustly, supporting the validity of the multiple regression results.

Reliabilities for the key measures in the study were found to be adequate. Cronbach's alpha for the psychological wellbeing scale was 0.895, indicating good internal consistency. The organisational support scale had a Cronbach's alpha of 0.936, suggesting excellent reliability. Finally, the job satisfaction scale had a Cronbach's alpha of 0.740, which is considered acceptable. Overall, the reliability analysis indicates that the scales used in this study demonstrated adequate internal consistency. The high alpha values for the psychological wellbeing and organisational support scales in particular suggest that items making up these scales are closely related and reliably measure their intended constructs. The moderately high alpha for the job satisfaction scale also provides evidence that this scale consistently measures the job satisfaction construct, albeit to a slightly lesser degree compared to the other two scales.

4.4. Hypothesis Testing

With the assumptions satisfied, hypothesis testing commenced using correlational and regression techniques. Three hypotheses were made.

4.4.1 Hypothesis 1

The first hypothesis stated that psychological wellbeing would be positively related to job satisfaction among the flight crew sample. A Pearson product-moment correlation evaluated this relationship. As displayed in Table 3, a moderate positive correlation was found between psychological wellbeing and job satisfaction ($r = .43$, $p < .01$). This aligns with the hypothesized direction and magnitude, providing support for Hypothesis 1.

Table 3: Pearson Correlations

Variables	Job Satisfaction	Psychological Wellbeing	Organizational Support
Job Satisfaction	-	.43**	.52***
Psychological Wellbeing		-	.10

** $p < 0.01$, ***$p < 0.001$

4.4.2. Hypothesis 2

The second hypothesis stated that organizational support would be positively related to job satisfaction among the flight crew sample. A Pearson correlation revealed a moderately strong positive relationship between organizational support and job satisfaction ($r = .52$, $p < .001$). As

shown in Table 4, both regression models were statistically significant overall. Organizational support accounted for 26.8% of the variance in job satisfaction scores (R^2 = .27, F = 13.20, p < .001). The organizational support regression weight was significant (β = .34, p < .001), indicating it was a significant positive predictor of job satisfaction when controlling for psychological wellbeing. This provides support for Hypothesis 2.

According to Cohen (1988), correlation coefficients between .3 and .5 represent moderate relationships, while those between .5 and .7 indicate strong relationships. Thus, both relationships align with the hypothesized direction and magnitude. Higher levels of psychological wellbeing and greater perceived organizational support were associated with increased job satisfaction.

4.4.3. Hypothesis 3

Building upon the observed bivariate relationships, the third hypothesis stated that psychological wellbeing and organizational support would be significant positive predictors of job satisfaction in the flight crew sample.

Table 4: Linear Regression Results

Predictor	β	R^2	F	p
Organizational Support	0.34	0.27	13.20	<0.001
Psychological Wellbeing	0.45	0.19	8.32	0.007

Similarly, psychological wellbeing explained 18.8% of the variance in job satisfaction (R^2 = .19, F = 8.32, p < .01). The psychological wellbeing regression weight was also significant (β = .45, p < .01), suggesting it was a significant positive predictor of job satisfaction when controlling for organizational support.

To examine their joint predictive capability, a multiple linear regression was conducted with both independent variables entered together. As seen in Table 4, this model accounted for 30.2% of the variance in job satisfaction (R^2 = .30, F = 9.18, p < .001). Both organizational support (β = .29, p < .05) and psychological wellbeing (β = .36, p < .01) remained significant positive predictors when included together.

Table 4: Multiple Regression Results

Predictor	β
Organisational Support	0.29*
Psychological Wellbeing	0.36*

Outcome variable: Job Satisfaction ; R_2= .30, F = 9.18, p < .001 ; *p < .05, **p < 0.01

These regression analyses indicate that organizational support and psychological wellbeing are both important individual and joint predictors of job satisfaction in the sample of flight crew personnel, providing support for Hypothesis 2.

4.5. Summary of Results

In summary, the following key results were obtained:

- Descriptive statistics showed moderate levels of job satisfaction and organizational support, and relatively high psychological wellbeing in the sample.
- Assumption testing indicated normality was satisfied, supporting use of parametric correlation and regression analyses.
- Hypothesis 1 was fully supported - both organizational support and psychological wellbeing showed significant positive correlations with job satisfaction.
- Hypothesis 2 was fully supported - organizational support and psychological wellbeing each significantly positively predicted job satisfaction in individual regression models.
- In a multiple regression model, organizational support and psychological wellbeing jointly explained 30% of variance in job satisfaction, indicating their combined predictive capability.

Chapter 5: Discussion & Conclusion

5.1. Introduction

The present research examined relationships between organizational support, psychological wellbeing, and job satisfaction among South African flight deck crews in the aftermath of the COVID-19 crisis. Guided by three hypotheses, the analysis revealed significant positive associations with implications for assisting aviation personnel amid continued adversity. This discussion summarizes key findings and considers their practical utility for informing supportive initiatives focused on consolidating stability and job satisfaction as the industry rebuilds.

Overall, the results substantiate seminal models positioning access to resources, or having organisational support as pivotal for wellbeing judgments and attitudes during demanding periods (Bakker & Demerouti, 2007; Eisenberger et al., 1986). For flight crews, perceiving support from leaders and the organization appears foundational for weathering the lingering effects of the pandemic's disruption. By contrast, sensing indifference to their needs may compound distress and dissatisfaction. These patterns highlight the importance of proactive, balanced organizational cultures as the aviation industry climbs toward post-pandemic stability (Smith et al., 2018). Compassion and care should be prioritized to uphold crew functioning when acute stress threatens to overwhelm capacities. Yet accommodations cannot override safety, as unfit crews endanger passengers and crew alike. Maintaining this equilibrium requires evidence-based policies and training for leaders to recognize distress early, conveying care while adhering to necessary evaluations.

For example, supportive debriefing and peer counselling after stressful flight incidents could enable processing and recovery without automatically prompting assessments (Greenberg et al., 2017). Willingness to flex schedules around mental health appointments also signals support. Yet clear procedures are still needed to determine when temporary grounding is required for safety. Such balanced approaches integrate crew support with responsible evaluation, aligning compassion and care with the paramount imperative of air safety. These patterns further illuminate relationships between resources, burnout, and satisfaction described by seminal Job Demands-Resources (JD-R) theory (Bakker & Demerouti, 2007). For crews facing pandemic-related demands, organizational support represents a key resource mitigating burnout and dissatisfaction. Yet JD-R also underscores that resources enabling performance must not override safety requirements. Thus, support provisions should target building

resilience while upholding fit-for-duty standards. Refining procedures to allow flexibility around minor issues while maintaining rigor for serious concerns may achieve this balance.

The following sections re-examine the empirical relationships through theoretical lenses, outlining practical refinements to help aviation's climb toward stability in South Africa. The study's limitations are then acknowledged alongside recommendations to enhance rigor in subsequent research locally and globally. At its core, the present analysis offers early strides toward clarifying evidence-based strategies to safeguard aviation professional wellbeing, performance, and job satisfaction during the post-pandemic recovery period.

5.2. Addressing the hypotheses

The study results supported the hypotheses regarding positive relationships between the predictors of psychological wellbeing and organizational support and the outcome of job satisfaction. These findings have meaningful implications within this occupational context. They suggest that interventions aimed at improving psychological wellbeing and enhancing perceived organizational support could potentially increase job satisfaction among flight crews. For instance, initiatives providing mental health resources and fostering a more supportive work climate may bolster satisfaction on the flight deck (Johnson et al., 2005; Seligman, 2011). Specifically, past research indicates that wellbeing interventions emphasizing positive emotions, engagement, relationships, meaning and purpose can enhance work satisfaction, performance and organizational citizenship behaviors among employees (Seligman, 2011). Additionally, perceived organizational support has been positively linked to job satisfaction across a range of occupational settings (Rhoades & Eisenberger, 2002). Thus, there is empirical precedent indicating that efforts to improve psychological wellbeing and organizational support would likely increase job satisfaction for aviation professionals as well.

However, some limitations should be noted. The sample size was relatively small, limiting generalizability. The cross-sectional design also precludes causal conclusions regarding the directionality of the observed relationships. Longitudinal and experimental research could provide further illumination of the temporal ordering and causal impacts on job satisfaction. Additionally, while the assumptions were deemed adequately met, minor deviations from normality may have affected results.

Despite these limitations, this study offers valuable insights into factors associated with a critical occupational group. The results highlight the importance of both psychological wellbeing and organizational support in relation to job satisfaction for flight crews. Further

research can continue to clarify these relationships and inform interventions to optimize satisfaction among this population.

5.3. Summary of Findings

The study results revealed significant positive relationships between organizational support, psychological wellbeing, and job satisfaction in the sample of flight deck crews.

Pearson's correlation analyses showed moderately strong positive associations between both predictors and job satisfaction. Psychological wellbeing exhibited a moderate correlation with job satisfaction ($r = .43$, $p < .01$), suggesting decreases in wellness may diminish satisfaction. Similarly, organizational support demonstrated a moderately robust relationship with job satisfaction ($r = .52$, $p < .001$), indicating perceptions of support within the aviation workplace appear important for fulfilment. Beyond these correlational patterns, organizational support accounted for over a quarter of variance in job satisfaction scores ($R^2 = .27$), clearly functioning as a salient predictor. Likewise, nearly a fifth of fluctuations in satisfaction were explained by psychological wellbeing ($R^2 = .19$), highlighting its substantial predictive capacity. In a regression model including both predictors, organizational support ($\beta = .29$, $p < .05$) and psychological wellbeing ($\beta = .36$, $p < .01$) jointly explained 30% of variance in job satisfaction.

The statistical analyses consistently pointed to organizational support and positive mental health as vital pathways to heighten and safeguard satisfaction among these flight deck personnel. The COVID-19 crisis introduced adversity and uncertainty which likely jeopardized both psychosocial wellness and workplace fulfilment locally, in SA, and abroad (Cahill et al., 2021; Görlich & Stadelmann, 2020; Kim et al., 2021). The forthcoming sections will unpack the practical utility of these results further, using an interpretative lens to make sense of the correlations and predictive relationships. Additionally, real-world implications will be considered regarding tangible interventions aimed at building supportive cultures and improving psychosocial provisions for aviation employees within the South African context. Limitations constraining interpretability and generalizability will also be addressed, alongside recommendations to overcome these constraints while suggesting directions for further scholarly inquiry both locally and globally.

the study provides initial empirical glimpses into optimizing mental health assistance and organizational support to strengthen job satisfaction among flight crews whose well-being and performance carry profound consequences for South African travel safety and aviation infrastructure functionality. As the industry charts its course moving forward, insights from this

investigation can shed light on vital areas for policy and practical interventions to safeguard this indispensable workforce.

5.4. Theoretical Frameworks

In examining the interrelationships between psychological wellbeing, organizational support, and job satisfaction, the results align with and extend contemporary theoretical frameworks explaining occupational wellness pathways.

Notably, the findings confirm core tenets of the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti et al., 2001). The JD-R model posits that all job characteristics can be classified as either demands or resources. Demands refer to aspects like high workload, emotional labour, and work-home conflict that require sustained effort and therefore carry physiological and psychological costs. Resources refer to aspects like social support, autonomy, and feedback that aid in achieving work goals and stimulate growth and development. The balance between job demands and resources determines employee wellbeing. Imbalance from excess demands and inadequate resources leads to burnout, while sufficient resources can buffer demands' negative effects and foster work engagement (Bakker & Demerouti, 2007).

The present results reveal psychological wellbeing and organizational support as important personal and contextual resources respectively that may mitigate work stressors and demands faced by aviation personnel. The JD-R model recognizes both psychological/individual and organizational resources as pivotal in shaping employee health, motivation, and satisfaction (Schaufeli & Taris, 2014). Employees mentally appraise their levels of key job resources available, which influences their occupational wellbeing. Beyond basic pay considerations constrained under financial duress, opportunities exist through job design, supervisory relations, peer collaboration, and cultural refinement for conveying valuation and nurturing intrinsic satisfaction.

In the context of the COVID-19 pandemic, aviation employees have confronted intensified demands including health risks, job insecurity, shifting roles, and work-life conflicts (Choi et al., 2022; Görlich & Stadelmann, 2020). The present research suggests personal wellbeing resources and perceived organizational support may act as crucial buffers against these pandemic-exacerbated demands, protecting against negative impacts on job satisfaction. This aligns with the Conservation of Resources theory (Hobfoll, 2002) which emphasizes resource accumulation and preservation during stressful times.

Initiatives fostering mental health through confidential counselling access, resilience training, or peer support groups may help aviation staff develop skills to proactively manage work stress and take initiative around self-care (Cahill et al., 2022; Smith et al., 2018). However, mental health promotion must be carefully balanced with safety requirements in the aviation context where psychological issues can directly impact airworthiness judgments (Wingelaar et al., 2018). Professional counsellors thus face ethical dilemmas balancing confidentiality with duty to report serious concerns jeopardizing public safety. Clear guidelines distinguishing impairment levels warranting temporary grounding versus minor issues safely managed through support could enable accessing help without automatically prompting evaluation (Hunt, 2022). Policies fostering psychologically safer work cultures while upholding fitness standards through calibrated procedures may achieve this equilibrium. Furthermore, efforts to convey organizational care through transparent communication, recognition, and flexible policies can also buttress perceived support resources. However, rigid norms discouraging emotional expression and help-seeking remain prevalent in South African culture, shaped by complex historical forces like apartheid-era stigma around mental healthcare (Kagee & Price, 1995). Local cultural dynamics pose obstacles to fully utilizing organizational support provisions and mental health assistance, even when available (Gureje et al., 2005). Incremental progress necessitates leadership initiatives actively working to foster psychologically safe atmospheres where aviation personnel feel able to voice struggles without fear of judgment. This facilitates applying resource-focused strategies from theoretical models like JD-R, which propose boosting availability of key job resources to enhance employee wellbeing and satisfaction during demanding periods (Schaufeli & Taris, 2014).

The present research highlights the vital necessity of fostering psychologically safer work cultures where employees feel able to voice struggles without fear of judgement. Positive psychology frameworks emphasize concentrating on building strengths rather than dwelling on dysfunction (Cooperrider & Srivastva, 1987). Appreciative inquiry approaches to change entail seeking out stories of resilience and commitment that occurred organically even amidst constraints (Cooperrider & Whitney, 2005). This seeds inspiration and efficacy precisely when solidarity is most needed for recovery. The research outcomes presented herein, exposing predictive links between variables more openly discussed in Western contexts, highlight the need to foster conditions in the South African context enabling employees to voice vulnerabilities without fears of stigmatization. Just as nurturing transparency and

supportiveness assist retention abroad, cultivating psychologically safer work atmospheres proactively combats culturally rooted mental health hurdles.

The findings highlight the importance of perceived organizational support and positive mental health appraisals for occupational well-being, especially during demanding times that require solidarity (Eisenberger et al., 1986; Keyes, 2002). Rather than focusing on constraints or help shortfalls, it may be beneficial to identify examples within organizations where support and camaraderie uplifted members' spirits amid adversity (Cameron et al., 2003). Such positive events could illuminate sources of resilience within the cultural context, providing anchors for expanded organizational initiatives (Morgan & Farsides, 2009). Capitalizing on sources of inventiveness and loyalty that emerged organically may foster sustainable systems aligned with participants' lived realities. In this way, an appreciative perspective presents opportunities for leadership and collective coherence when bonds require nurturing most (Cooperrider et al., 2008). The protective effects of simple conveyances of human consideration, even during crises, offer hope and direction for the aviation industry as it moves forward after the pandemic.

Critically, the broaden-and-build theory of positive emotions (Fredrickson, 2001) provides insights into potential pathways for activating these localized strengths. This theory posits that unlike negative emotions which narrow mindsets to focus on threats, positive emotions like joy, interest, and contentment broaden awareness and encourage exploration and relational connections. At individual and organizational levels, repeated experiences of positive emotions accumulate and compound over time to build consequential personal, social, and cognitive resources. Within South African aviation contexts, purposeful cultivation of shared positive emotional experiences through workplace initiatives could gradually strengthen cultural resources by expanding perceptions of support availability and eroding stigma-based mental barriers (Fredrickson et al., 2008).

Overall, contemporary theoretical models like JD-R explain the critical buffering capacity of organizational and psychological resources uncovered by the present study. However, translating these insights into effective interventions necessitates grappling with deeply rooted cultural forces that continue to hinder openness around mental health in South Africa. Initiatives to strengthen communication, connectedness, and psychological safety hold immense potential to reignite occupational wellbeing and satisfaction for aviation employees through the post-pandemic rebuilding process. Further research applying positive psychology

lenses to identify pathways for expanding localized cultural resources merits exploration as a conduit for sustainable, context-sensitive organizational change.

5.5. Practical Implications

The present study's findings elucidate practical implications for occupational health interventions aimed at safeguarding the wellbeing of South African aviation employees during the post-pandemic recovery period. Given the substantial threat of turnover intentions due to the sector's lingering turbulence (Cahill et al., 2021), nurturing job satisfaction through supportive organizational cultures and mental health initiatives represents a pivotal employee retention strategy for local air transit operations seeking stability amid unpredictability.

The observed moderate to strong associations between psychological wellbeing, organisational support and job satisfaction underscore the potential for tangible improvements in occupational fulfilment by investing in these domains. Evidence-based enhancements strengthening perceived organizational support, such as supportive supervision, employee recognition, upskilling opportunities, decision-making involvement, and assurances of job security, can assist in preserving employees' psychological wellbeing and motivation (Kurtessis et al., 2017). For instance, implementing fair and transparent performance reviews established through staff participation and input communicates genuine valuing of personnel and their perspectives. This crystallizes the linkage between perceived support and job satisfaction. Similarly, offering flexible work arrangements, childcare assistance, bereavement leave policies, and health benefits conveys care for employees' livelihoods beyond mere productivity, expressing authentic concern during distressing times professionally and personally (SHRM, 2022). Such enhancements demonstrate organizational commitment to supporting staff through compounding Covid-19 challenges as both aviation contributors and individual people with layered needs warranting thoughtful consideration amid obstacles still lining the road to recovery. Especially given the pandemic's added tolls, policy emphasis on safeguarding livelihoods and nurturing strengths proves doubly important to avoid worsening the psychological wellbeing of their workforce.

Additionally, the present results spotlight fruitful avenues for continuing to strengthen occupational fulfilment, critical for retaining and engaging flight deck crews and air navigation personnel fulfilling indispensable roles in South Africa's travel infrastructure. Purposeful, compassionate leadership vowing steadfast consideration of employees' needs serves well in turbulent times when cynicism understandably ascends from compounding industry struggles.

The pandemic's profound upheavals in South Africa's aviation sector underscore the need to actively cultivate restorative spaces and practices, rebuilding depleted internal resources. Advancing scholarship highlights psychological detachment, relaxation, mastery experiences, exercise, and social connectivity as vital mechanisms reversing resource deterioration incurred by escalating occupational demands (Sonnentag, 2001). When perceived support suffers and mental health frays from protracted uncertainty and distress, employees greatly benefit from organizational promotion of self-care through wellness programming, recreational events, counselling, family supports, and initiatives fostering internalized purpose and meaning amid external chaos (Kinnunen et al., 2019). While financial constraints may hinder some offerings, proactive in-house solutions harnessing available talents and institutional knowledge to safeguard staff hold strategic promise for the industry's future.

For instance, internally run training offerings in psychological self-care, emotional regulation tactics, cognitive restructuring, social support utilization including peer assistance, and mindfulness practices can help strengthen employees' capabilities to navigate taxing conditions. Past research on aviation personnel specifically highlights elevated risks for fatigue, concentration deficits, depressive tendencies, and cumulative anxiety tied to both performance risks and personal health costs (Cahill et al., 2021; McNeely et al., 2014). Therefore, ongoing staff education regarding awareness, prevention, and responsive strategies for these psychological risk factors carries valuable protective potential without requiring external referral costs.

Developing such in-house supportive programs leverages existing institutional knowledge while expanding supervisor sensibilities regarding mental health promotion in the workplace. This integrated approach may foster more receptive help-seeking climates with minimal lingering stigma barriers, a persistent concern in the South African context (Vermeulen & Mitchell, 2007). Amid constraints, proactive solutions fortifying strengths using available talents bode well for confronting intensifying pressures. The present investigation bears particularly resonant implications within South Africa following recent government issuances of more stringent medical certification regulations encompassing psychological criteria for aviation personnel to resume duties after pandemic impedances (SACAA, 2023). As discussed, such edicts risk losing talent still rebuilding post-pandemic and introducing further psychological barriers to support utilization. Hence balanced policy efforts focused on psychological safety promotion, anti-stigma interventions, and flexible disorder accommodation where maintainable with appropriate safeguards emerge as prudent

complements. These help mitigate potential workforce reserve losses as South Africa's recovering air transit sector seeks to align and support capable crews.

In contrast to potentially stigmatizing 'weed out' approaches (Vermeulen & Mitchell, 2007) by traditionally removing those that don't fit the specific work culture, 'care for all' frameworks emphasizing assistance over attrition, understanding over outdated assumptions, and safeguards over sanctions warrant emphasis. This upholds ethical sea changes acknowledging human struggles and needed support. Supplementary offerings like flexible work arrangements where feasible, childcare assistance, bereavement leave policies, and health benefits demonstrate substantive care for employee livelihoods as both organizational contributors and individual people with layered needs during deeply distressing times.

Such enhancements communicate leadership solidarity with staff weathering compound Covid-19 uncertainties. Following evidence-based schemes internationally, balanced approaches fostering access, opportunity, and sustained occupational ability prove more prudent than reactions potentially threatening retention and recovery locally when reserves remain strained. Overall, the present results clearly underscore the vital tie between psychosocial wellbeing and the occupational dedication underpinning South Africa's aviation rebuilding. Investing in employees' health and satisfaction fosters the performance cornerstone for the industry's postponed yet imperative recovery.

5.6. Limitations and Future research

While yielding valuable initial evidence, the present study contains certain limitations warranting consideration. Firstly, the sole reliance on self-report survey measures introduces potential response biases rooted in subjective perceptions and impression management tendencies (McCrae & Costa, 1983). Although surveys provide pragmatic advantages for ease of administration, participants may distort responses due to social desirability biases or consistent portrayal patterns. Supplementing self-reports with indirect observational assessments of facets like organizational support and job satisfaction could prove constructive.

Moreover, the cross-sectional design employed precludes determinations of directionality and causation between the variables examined. For instance, while the regression analyses found organizational support and psychological wellbeing predicted job satisfaction when controlling for their mutual influence, inferences cannot be made regarding temporal precedence. It is plausible the relationships unfold dynamically rather than unidirectionally. Employees experiencing greater job satisfaction may subsequently perceive their workplace as more

supportive and evaluate their mental health more positively. Controlled longitudinal tracking of how the variables covary over time, coupled with experimental manipulations of hypothesized predictors like organizational support provisions, constitute future research directions for clarifying temporal dynamics and illuminating causal impacts on job satisfaction.

Furthermore, the limited sample surveyed restricts the generalizability of findings beyond the present aviation employees. Participants were predominantly drawn from one major South African airline, limiting representativeness across the heterogeneous local industry. Expanding collaborative outreach to various air transit entities and roles would constructively augment result external validity. For example, assessing whether patterns hold across flight deck crew, cabin crew, ground operations teams, and air navigation staff could reveal both commonalities and role-specific nuances influencing appraisals. If resources allow, broader national probability samples of aviation workers would be ideal to enable generalization.

The small sample size of 38 participants poses a significant limitation by reducing result dependability and generalizability while heightening instability in statistical relationships. This likely reflects logistical hurdles obtaining wide input across multiple local aviation institutions despite extensive recruitment efforts. Complex scheduling demands and research burnout among aviation personnel requiring intensive time investments to participate thwarted retention once initial survey entries plateaued. Providing direct incentives was unrealistic without funding, though this strategy could potentially improve future viability among these time-constrained groups. Hence, conservative interpretation of the current findings remains prudent given sample sparseness. Broadening collaborative networks and piloting creative access solutions to enrich aviation staff involvement constitutes a priority for strengthening inferences.

While perceived organizational support and mental health patterns significantly predicted job satisfaction individually and jointly in regression analyses, the potential moderating role of supportive resources remains unexplored. Moderator variables regulate the direction or strength of relationships between predictors and outcome variables (Baron & Kenny, 1986). For instance, access to assistance from supervisors, training opportunities, and workplace counselling might buffer the negative relationship between psychological distress and job satisfaction. Testing such nuanced impacts through multivariate analyses represents an important future research direction for clarifying how support provisions best mitigate mental health vulnerabilities to promote occupational wellbeing.

The exclusive reliance on quantitative surveys risks overlooking experiential nuances shaping appraisal patterns. Mixed methodologies incorporating qualitative approaches to capture aviation employees' rich lived perspectives would enable tailored refinement of support initiatives beyond one-size-fits-all platforms. For example, semi-structured interviews eliciting pilots' and air traffic controllers' experiences in their own words could highlight specific stressors, strains, preferences, and recommendations to inform context-conscious support personalization. Likewise, experimental studies directly manipulating and measuring the impacts of specific mental health assistances and supportive interventions would constructively build practical knowledge guiding resource allocation. For instance, researchers could provide different groups of aviation employees varying organizational support resources like training workshops, counselling access, supervisor caretaking, and work-life balance policies while tracking corresponding changes in occupational wellbeing markers over time. This level of control and precision is needed to complement survey methods for determining best practices.

Given South African aviation's protracted functioning restoration post-pandemic, sustained longitudinal tracking of occupational health patterns over time constitutes an invaluable need accompanying the projected years-long climb towards stability. Regularly gauging markers of psychological wellness, perceived organizational support, and work fulfilment at multiple points not only establishes benchmarking but also provides vital diagnostic checks supporting balance against relapse while spotlighting areas requiring ongoing remediation. Both periodic snapshot and longer-range research afford indispensable barometers dynamically calibrating assists as the industry incrementally recovers.

For example, the present study could be expanded through annual follow-up assessments of the same support and outcome variables in this flight crew sample, enabling analysis of temporal trajectories. Comparative benchmarks against global aviation recovery patterns also help contextualize local trends, illuminating progress beyond South African particularities. As skies continue brightening, consistent monitoring of psychosocial indices proves prudent for assurance at both institutional and individual levels amidst lingering forecasting uncertainties. Understanding evolving mindsets as demand reconstitutes post-pandemic remains key while systemic crosswinds endure.

Recognizing Covid-19's persisting reverberations through the global air transit industry, cross-national comparative research examining common and unique patterns in occupational wellbeing offers useful context. Multinational investigations can delineate the degree to which

current findings generalize broadly versus manifesting locally specific conditions shaping aviation personnel's labour experiences worldwide. This can direct the applicability of organizational support recommendations stemming from South African-centred samples. In totality, while the present study advances initial understandings to inform local intervention initiatives assisting the upward climb, addressing methodological constraints through broader collaborative samples, longitudinal tracking, mixed methods, and experimental approaches offers impactful subsequent research directions for aviation workplace mental health promotion.

The current investigation conducted within the South African context makes valuable foundational contributions towards nurturing evidence-based initiatives aimed at restoring and safeguarding the wellness of a workforce fulfilling an indispensable role locally and connecting societies internationally. However, meaningful opportunities remain through addressing limitations. Broadening samples, measuring moderating mechanisms, eliciting employee perspectives, controlled hypothesis testing, and longitudinal tracking constitute priorities charting directions for impactful subsequent research informing workplace mental health provisions as the industry traverses towards stability. While significant inroads have been made, considerable potential exists to build understandings through strengthened methods and expanded scopes supporting aviation's ascent.

5.7. Conclusion

The aviation industry faced major upheaval due to the COVID-19 pandemic, including operational and financial challenges that significantly impacted employees (Choi et al., 2022; Görlich & Stadelmann, 2020). This research examined how pandemic-related stressors influenced work stress, psychological wellbeing, organizational support, and job satisfaction among 38 South African aviation professionals.

Overall, results supported both hypotheses, revealing positive associations between organizational support, wellbeing, and satisfaction. Organizational support exhibited the strongest correlation with job satisfaction ($r = .52$, $p < .001$), highlighting its pivotal role as a resource, explaining over a quarter of variance. This confirms organizational support's crucial capacity to buffer acute pressures (Kurtessis et al., 2017). The moderate wellbeing-satisfaction correlation ($r = .43$, $p < .01$) indicates personal resources and positive appraisals are key for fulfilling work (Adler et al., 2017), accounting for nearly a fifth of variance. Together,

organizational support and wellbeing significantly predicted job satisfaction, elucidating their joint importance.

These align with the job demands-resources model emphasizing access to support and personal resources for wellbeing when demands are high (Bakker & Demerouti, 2007). For aviation professionals, perceived organizational caring and mental health maintenance appear vital for weathering pandemic impacts as aviation rebuilds. Initiatives aimed at improving communication, engagement, wellness provisions, and work-life policies may alleviate COVID-related strains on satisfaction and performance. However, cultural barriers to open mental health communication persist in South Africa (Gureje et al., 2005), necessitating efforts to foster psychologically safe atmospheres and utilize strengths-based positive psychology frameworks (Cooperrider & Whitney, 2005).

While this research makes initial strides in clarifying evidence-based practices to safeguard occupational wellness in aviation amid ongoing recovery, several limitations should be addressed through future research to strengthen the empirical foundation for informing organizational initiatives and policies. The cross-sectional correlational design precludes determining directionality or causation between the key variables. Longitudinal tracking studies measuring changes in perceived support, wellbeing, and satisfaction over time could help disentangle temporal precedence and establish stronger causal inferences regarding predictive relationships. Diary study methods assessing daily fluctuations in these variables may also clarify nuanced dynamics. Experimental studies manipulating organizational support provisions through training programs or policy changes and measuring impacts on wellbeing and satisfaction would further strengthen causal evidence to guide resource allocation.

Additionally, the reliance solely on self-report surveys introduces potential response biases like social desirability effects. Employees may feel pressured to downplay mental health struggles or overstate positivity. Supplementary data collection through indirect observations, peer reports, and physiological indicators could strengthen result dependability. Larger probability samples representing diverse roles, airlines, and geographic regions are also needed to enable broader industry generalizability versus the current small sample concentrated in one airline's flight deck crew. Accessing a wider cross-section of the aviation workforce could delineate whether patterns replicate across roles and ranks.

Moreover, incorporating qualitative methodologies like interviews and focus groups would provide textured experiential insights into employees' lived realities that surveys overlook.

Employees could describe in their own words the types of organizational support practices they find most helpful or detrimental amid upheaval. Mixed methods combining quantitative data indicating general patterns with in-depth qualitative narratives of personal experiences could enable deeper understanding and tailored intervention refinement. For instance, qualitative findings might reveal preferences for certain communication channels, leader behaviours, or peer support formats that quantitative analyses do not capture. Examining moderating variables like workplace counselling or leadership style that may influence the relationships between predictors and outcomes warrants investigation. For instance, access to confidential counselling could strengthen the link between perceived support and wellbeing. Destructive leadership may weaken effects of organizational support initiatives. Continued longitudinal tracking in the coming years provides indispensable data gauging the industry's incremental progress toward stability. Comparing trends and trajectories between aviation companies with contrasting approaches also illuminates organizational factors accelerating or hindering workforce wellbeing and satisfaction amid ongoing uncertainty.

Cross-national comparative research would help delineate common and unique patterns in how the pandemic impacted global aviation employees' occupational wellbeing and job attitudes. Exploring variations based on national culture, work policies, and industry structures provides insights into contextual factors shaping experiences. Multinational aviation organizations present opportunities for internal comparisons across countries to identify strengths and gaps. Progress depends on accumulating diverse global evidence regarding optimal strategies for monitoring and supporting workforce wellness during turbulent transitions.

In conclusion, this research makes valuable preliminary contributions towards informing organizational strategies for nurturing employee health and job satisfaction in South African aviation contexts during a deeply challenging period. Perceived organizational support and psychological wellbeing clearly hold importance as joint determinants of work fulfilment for aviation professionals. However, addressing methodological limitations through broader samples, qualitative data inclusion, controlled experiments, moderator analyses, sustained follow-ups, and cross-cultural comparisons offers critical directions for impactful subsequent scholarly inquiry.

There remains considerable opportunity to expand understanding of effective ways aviation companies can promote supportive climates, mental health provisions, and balanced policies to enhance occupational wellness and sustain this indispensable workforce. As South Africa's

air transportation industry continues charting its gradual ascent towards post-pandemic stability amidst lingering uncertainties, evidence-based insights into nourishing employee dedication and satisfaction will prove vital for securing smooth operational functionality and traveller safety through the navigation ahead. This initial investigation highlights fruitful areas for practical interventions and further research to inform sustainable organizational change.

REFERENCE LIST

Adler, A., Seligman, M. E., Rashid, T., & Parks, A. C. (2017). *Positive psychology. In R. Biswas-Diener & E. Diener (Eds.), Noba textbook series: Psychology*. DEF Publishers. http://noba.to/65w3s7ex

Air Transport Action Group. (2021, July). The impact of COVID-19 on jobs supported by air transport. https://www.atag.org/our-publications/archives.html

Alderson, M. R. (2022). Mental health support for airline pilots during and post COVID-19. *Aerospace Medicine and Human Performance, 93(1), 56-59.* https://doi.org/10.3357/AMHP.5835.2022

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology, 22(3), 309-328.* https://doi.org/10.1108/02683940710733115

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51(6), 1173*. https://doi.org/10.1037/0022-3514.51.6.1173

Broom, L. (2022, July 26). Load factor blues for South African airlines amid fifth covid wave. BusinessLIVE. https://www.businesslive.co.za/bd/companies/transport-and-tourism/2022-07-26-load-factor-blues-for-south-african-airlines-amid-fifth-covid-wave/

Butali, C. W., & Njoroge, B. (2016). Aviation employees' perceptions of organization and supervisor support: job attitudes outcomes. *The International Journal of Aviation, Aeronautics, and Aerospace, 3(3). https://doi.org/10.15394/ijaaa.2016.1126*

Cahill, J., Cullen, P., Anwer, L., Gayed, A., Ginns, P., Hall, A., Hossain, M. J., Murphy, E., Oreilly, M. B., Still, M., Mackle, S. J., Salmon, P., & O'Keeffe, D. T. (2021). *COVID-19 pandemic and civil aviation: A literature review. Progress in Aerospace Sciences, 125, 100707.* https://doi.org/10.1016/j.paerosci.2021.100707

Cahill, J., Gayed, A., Seery, C., Hall, A., & O'Keeffe, D. T. (2023). COVID-19 and aviation operations: A longitudinal study on anxiety and mental health in aviation personnel. *Safety, 9(3), 76.* https://doi.org/10.3390/safety9030076

Campbell, K. (2022, August 29). South Africa's aviation industry facing a turbulent path to recovery. *Engineering News.* https://www.engineeringnews.co.za/article/south-africas-aviation-industry-facing-a-turbulent-path-to-recovery-2022-08-29

Cameron, K. S., Dutton, J. E., & Quinn, R. E. (Eds.). (2003). Positive organizational scholarship: Foundations of a new discipline. Berrett-Koehler.

CAPA. (2021, April 14). Wellbeing, diversity: Aviation pivots to people in COVID-19 recovery. *Centre for Aviation*. https://centreforaviation.com/analysis/reports/wellbeing-diversity-aviation-pivots-to-people-in-covid-19-recovery-553177

Chen, C. F., & Kao, Y. L. (2011). The antecedents and consequences of job stress of flight attendants–Evidence from Taiwan. *Journal of Air Transport Management, 17(4), 253-255.* https://doi.org/10.1016/j.jairtraman.2010.12.014

Chiang, C. F., & Wu, K. P. (2014). The influences of internal service quality and job standardization on job satisfaction with supports as mediators: Flight attendants at branch workplace. *The International Journal of Aviation Psychology, 24(3), 191-204.* https://doi.org/10.1080/10508414.2014.918446

Cho, O., Boo, S., & Lee, H. (2014). Work stress and turnover intention among airline cabin crew: Mediating role of job satisfaction. *Journal of Quality Assurance in Hospitality & Tourism, 15(1), 20-38*. https://doi.org/10.1080/1528008X.2014.871857

Choi, H., Powell, P., & Jeffries, H. (2022). Employee well-being after COVID-19 transition-to-work protocols: An aviation organization case study. *International Journal of Manpower.* https://doi.org/10.1108/IJM-04-2022-0193

Civil Aviation Safety Authority. (2021). A review of flight crew fatigue: working time limitations *(CAAP 48-01 V2.1).* https://www.casa.gov.au/publications-and-resources/publication/caap-48-01-v21-review-flight-crew-fatigue-working-time-limitations-july-2021

Cooperrider, D. L., & Srivastva, S. (1987). Appreciative inquiry in organizational life. *Research in Organizational Change and Development, 1(1), 129-169.*

Cooperrider, D. L., & Whitney, D. (2005). Appreciative inquiry: A positive revolution in change. Berrett-Koehler.

Cooperrider, D., Whitney, D. D., & Stavros, J. M. (2008). The appreciative inquiry handbook: For leaders of change. *Berrett-Koehler.*

Cozza, C., Laur, J., & Lenore, S. R. (Eds.). (2021). Airline labor relations in the global era: The new frontier. *Routledge*.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approach (4th ed.). *SAGE Publications.*

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86(3), 499-512.* https://doi.org/10.1037/0021-9010.86.3.499

Dickson-Swift, V. A., Fox, C., Marshall, K., Welch, N., & Willis, J. (2014). What really improves employee health and wellbeing: Findings from regional Australian workplaces. *International Journal of Workplace Health Management, 7(3), 138-155.* https://doi.org/10.1108/IJWHM-10-2012-0026

Egbe, C. O., Brooke-Sumner, C., Kathree, T., Selohilwe, O., Thornicroft, G., & Petersen, I. (2014). Psychiatric stigma and discrimination in South Africa: Perspectives from key stakeholders. *BMC psychiatry, 14(1), 1-10*. https://doi.org/10.1186/s12888-014-0191-z

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71(3), 500-507*. https://doi.org/10.1037/0021-9010.71.3.500

Elliott, A. C., & Woodward, W. A. (2007). Statistical analysis quick reference guidebook: With SPSS examples. *SAGE publications.*

Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. American *Journal of Theoretical and Applied Statistics, 5(1), 1-4.* https://doi.org/10.11648/j.ajtas.20160501.11

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American psychologist, 56(3), 218-226.* https://doi.org/10.1037/0003-066X.56.3.218

Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build

consequential personal resources. *Journal of personality and social psychology, 95(5), 1045-1062*. https://doi.org/10.1037/a0013262

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism, 10(2), 486-489*. https://doi.org/10.5812/ijem.3505

Görlich, D., & Stadelmann, L. (2020). The impact of Covid-19 on job and life satisfaction of airline personnel in Switzerland: A qualitative study. *BMC Public Health, 20(1), 1-7*. https://doi.org/10.1186/s12889-020-09845-3

Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2017). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ, 368, m1211*. https://doi.org/10.1136/bmj.m1211

Gureje, O., Lasebikan, V. O., Ephraim-Oluwanuga, O., Olley, B. O., & Kola, L. (2005). Community study of knowledge of and attitude to mental illness in Nigeria. *The British Journal of Psychiatry, 186(5), 436-441*. https://doi.org/10.1192/bjp.186.5.436

Hargrove, M. B., Quick, J. C., Nelson, D. L., & Quick, J. D. (2011). The theory of preventive stress management: a 33-year review and evaluation. *Stress and Health, 27(3), 182–193*. https://doi.org/10.1002/smi.1417

Hayes, J. A., McNeil, C. B., Carlson, C., & Anderson, C. (2020). Job satisfaction and job values in counselors: Examining unique relationships with personal, occupational, and work environment variables. *The Professional Counselor, 10(1), 79-93*. https://doi.org/10.15241/jhh.10.1.79

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology, 50(3), 337-421*. https://doi.org/10.1111/1464-0597.00062

Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of general psychology, 6(4), 307-324*. https://doi.org/10.1037/1089-2680.6.4.307

House, R. J., & Rizzo, J. R. (1972). Role conflict and ambiguity as critical variables in a model of organizational behavior. *Organizational behavior and human performance, 7(3), 467-505*. https://doi.org/10.1016/0030-5073(72)90030-7

Hugo, C. J., Boshoff, D. E. L., Traut, A. Z., Naidoo, G., & Stein, D. J. (2003). Community attitudes toward and knowledge of mental illness in South Africa. *Social Psychiatry and Psychiatric Epidemiology, 38(12), 715-719.* https://doi.org/10.1007/s00127-003-0695-3

Hunt, K. (2022, April 11). Airlines push for science-backed incident response to pilot mental health. *FlightGlobal.* https://www.flightglobal.com/safety/airlines-push-for-science-backed-incident-response-to-pilot-mental-health/147708.article

Idris, M. A., Dollard, M. F., & Winefield, A. H. (2012). The effect of globalization on employee psychological health and job satisfaction in Malaysian workplaces. *Journal of Occupational Health, 54(6), 447-454*. https://doi.org/10.1539/joh.12-0050-OA

International Air Transport Association. (2022). Financial and operating statistics. https://www.iata.org/en/publications/statistics/financial-opex-statistics/

Johnson, M. (2020, December 22). Positive Psychology to Improve Wellbeing of Crew and Passengers. *Safety4Sea.* https://safety4sea.com/cm-positive-psychology-to-improve-wellbeing-of-crew-and-passengers/

Kagee, A., & Price, J. L. (1995). Apartheid in South Africa: Toward a model of psychological intervention. *Journal of Black Studies, 25(6), 737-748.* https://doi.org/10.1177/002193479502500610

Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior, 43(2), 207-222*. https://doi.org/10.2307/3090197

Kim, B., Lee, S., Kim, K. K., & Yoo, J. (2021). Impact of COVID-19 on career and psychological stress in the future of cabin crew members in South Korea. *International Journal of Environmental Research and Public Health, 18(22), 11815.* https://doi.org/10.3390/ijerph182211815

King, B. H., Alexy, W. D., Lynne, A., & Heath, T. (1997). Aviation psychological services: Pilot mental health and perceptions of barriers to care. *In Proceedings of the 13th Annual International Symposium on Aviation Psychology (pp. 385-388). Ohio State University.*

Kinnunen, U., Ranta, L., de Bloom, J., & Korpela, K. (2019). Work-related stress and wellbeing. *International Encyclopedia of Public Health (Second Edition), 586-594.* https://doi.org/10.1016/B978-0-12-803678-5.00409-1

Kioulepoglou, P. A., & Blundell, M. (2022). Changes in job satisfaction, workload and wellbeing in airline and military pilots during the COVID-19 pandemic. *Aerospace Medicine and Human Performance, 93(1), 53–55.* https://doi.org/ 10.3357/AMHP.5941.2022

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management, 43(6), 1854-1884.* https://doi.org/10.1177/0149206315575554

Leedy, P.D. and Ormrod, J. E., (2010). Practical research: planning and design. *Pearson Educational International.*

Lee, J. Y., Lim, H. G., Choi, K. H., Kim, S., Lee, M., Park, S. J., Park, S. S., & Tatarusanu, F. D. (2023). Psychosocial impact of the COVID-19 pandemic on flight attendants: *Systematic literature review. Healthcare, 11(3), 842. https://doi.org/10.3390/healthcare11030842*

Lu, L., & Kao, S. F. (2013). The reciprocal relations of pressure, work/family interference, and role satisfaction: Evidence from a longitudinal study in Taiwan. *Human Resource Management, 52(3), 353-373. https://doi.org/10.1002/hrm.21532*

Manderscheid, R. W., Ryff, C. D., Freeman, E. J., McKnight-Eily, L. R., Dhingra, S., & Strine, T. W. (2009). Evolving definitions of mental illness and wellness. *Preventing Chronic Disease, 7(1), A19.*

Mansoor, M., Fida, S., Nasir, S., & Ahmad, Z. (2011). The impact of job stress on employee job satisfaction a study on telecommunication sector of Pakistan. *Journal of Business Studies Quarterly, 2(3), 50-56.*

Marais, H., Koen, R., & Leichner, C. (2020). Psychological crisis intervention for air traffic controllers during the COVID-19 lockdown in South Africa. *Journal of Air Transport Management, 89, 101923.* https://doi.org/10.1016/j.jairtraman.2020.101923

McCrae, R. R., & Costa, P. T. (1983). Social desirability scales: More substance than style. *Journal of consulting and clinical psychology, 51(6), 882-888.* https://doi.org/10.1037/0022-006X.51.6.882

McNeely, E., Mordukhovich, I., Tideman, S., Gale, S., Funk, W. E., & Baur, D. M. (2014). Work environment health and safety survey of flight attendants. *Journal of Occupational and Environmental Hygiene, 11(12), D169-D179.* https://doi.org/10.1080/15459624.2014.955193

Morgan, S., & Farsides, T. (2009). Measuring meaning in life. *Journal of Happiness Studies, 10(2), 197-214*. https://doi.org/10.1007/s10902-007-9075-0

Mullins, L. J. (2005). Management and organisational behaviour. (7th ed.). *Financial Times* Management.

Nahrgang, J. D., Morgeson, F. P., & Hofmann, D. A. (2011). Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of Applied Psychology, 96(1), 71–94*. https://doi.org/10.1037/a0021484

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). *McGraw-Hill.*

O'Hagan, A. D., Issartel, J., Fletcher, R., & Warrington, G. (2018). Aerobic fitness facilitates the resilience to chronic psychosocial work stress in aviation personnel. *Ergonomics, 61(9), 1277-1287*. https://doi.org/10.1080/00140139.2018.1475556

Paramita, N. H., & Sudhartio, D. (2022). Stress during the COVID-19 pandemic: A qualitative study with air traffic controllers in Indonesia. *International Journal of Aviation, Aeronautics, and Aerospace, 9(2).* https://doi.org/10.15394/ijaaa.2022.1676

Pearman, A., Hughes, M. L., Howard, E. L., Smith, J. L., Neupert, S. D., Vohs, J. L., Lachner, C. D., O'Brien, K. M., Mahmood, L., & Facer-Irwin, E. (2021). Working through the pandemic: Qualitative assessment of the work experiences of U.S. employed adults 1 year into the COVID-19 pandemic. *The Qualitative Report, 26(6), 2046-2062.* https://doi.org/10.46743/2160-3715/2021.4929

Pursell, B. M., Comeau, M. S., & Goss, J. J. (2022). Assessing the impact of the COVID-19 pandemic on mental health outcomes in pilots and flight attendants. *Frontiers in Psychiatry, 13, 944808*. https://doi.org/10.3389/fpsyt.2022.944808

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57(6), 1069.* https://doi.org/10.1037/0022-3514.57.6.1069

Ryff, C. D. (2013). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and Psychosomatics, 83(1), 10-28.* https://doi.org/10.1159/000353263

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and social Psychology, 69(4), 719-727.* https://doi.org/10.1037/0022-3514.69.4.719

Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies, 9(1), 13-39.* https://doi.org/10.1007/s10902-006-9019-0

Santilhano, A. (2018). Factors that influence pilot mental health: A systematic review. *Aerospace Medicine and Human Performance, 89(12), 1047–1053.* https://doi.org/10.3357/AMHP.5215.2018

Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the Job Demands-Resources Model: Implications for improving work and health. In Bridging occupational, organizational and public health (pp. 43-68). *Springer, Dordrecht.* https://doi.org/10.1007/978-94-007-5640-3_4

SHRM. (2022, August 4). Perceived organizational support. *Society for Human Resource Management.* https://www.shrm.org/resourcesandtools/tools-and-samples/toolkits/pages/understandinganddevelopingorganizationalculture.aspx

Shin, S. E., Kang, J. H., Byun, J. M., Kim, S., & Kim, S. Y. (2022). Factors influencing job satisfaction and motivation in airline cabin crew after COVID-19. *International Journal of Environmental Research and Public Health, 19(22), 14762.* https://doi.org/10.3390/ijerph192214762

SKYbrary Aviation Safety. (2021). *Impact of COVID-19 on Cabin Crew Wellbeing*. https://skybrary.aero/articles/impact-covid-19-cabin-crew-wellbeing

Smith, G. (2018). Pilot mental health, negative life events and improving safety with peer support and psychological intervention. *Journal of Aviation Technology and Engineering, 8(1).* https://doi.org/10.7771/2159-6670.1184

Smith, G., Flowers, P., Larkin M. (2018) Interpretative phenomenological analysis: Theory, method and research. *SAGE Publications Inc.*

Sonnentag, S. (2001). Work, recovery activities, and individual well-being: A diary study. *Journal of Occupational Health Psychology, 6(3), 196–210.* https://doi.org/10.1037/1076-8998.6.3.196

South African Civil Aviation Authority (SACAA). (2023). Guidance for medical examiners and self-declarants on the new regulations and SABS codes of practice. https://www.caa.co.za/Pages/New%20Medical%20Regulations%20Resource%20Centre/Self-declarants.aspx

Troyer, M., & Bidaisee, S. B. (2022). COVID-19 and the future of work. *Transnational Corporations Review, 14(2), 138-162*. https://doi.org/10.1080/19186444.2022.2069578

Van Gordon, W., Shonin, E., Dunn, T. J., Garcia-Campayo, J., & Griffiths, M. D. (2017). Meditation awareness training for the treatment of workaholism: A controlled trial. *Journal of Behavioral Addictions, 6(2), 212-220*. https://doi.org/10.1556/2006.6.2017.021

Vermeulen, L. P., & Mitchell, J. T. (2007, September). Development of a group cohesion scale for application within aviation crew resource management training [Conference presentation]. *Proceedings of the human factors and ergonomics society annual meeting, 51(1), 168-171).* https://doi.org/10.1177/154193120705100138

Walker, D. (2022). Pilots' experiences of being furloughed during the COVID-19 pandemic. *International Journal of Aerospace Psychology, 1-13.* https://doi.org/10.1080/24721840.2022.2141411

Walsh, R., Casali, G., Munyakazi, L., Murenzi, J., Bedi, H. S., Larbi, E. M., ... & Uwizeye, E. (2023). The impact of COVID-19 on aviation in Africa. *Journal of Air Transport Management, 99, 102173*. https://doi.org/10.1016/j.jairtraman.2021.102173

Williams, K., & Edwards, B. (2022). The trickle-down effect—The impact of COVID-19 on the wellbeing and mental health of airline pilots and cabin crew. *The International Journal of Aerospace Psychology, 32(1), 1-18.* https://doi.org/10.1080/24721840.2022.2050244

Wingelaar-Jagt, J. J., Bergström, T., Flach, P., Särndal, C. E., & Lindgren, T. (2021). Fatigue risks in civil aviation: the association between fatigue, health, work-private life-balance, and suicidal thoughts. *Aerospace medicine and human performance, 92(1), 32-42.* https://doi.org/10.3357/AMHP.5628.2021

Appendices

Appendix A: Access Request Letter

26 April 2023

REQUEST FOR ACCESS TO EMPLOYEES FOR RESEARCH PURPOSES:

PSYCHOLOGICAL WELL-BEING, ORGANISATIONAL SUPPORT, AND JOB SATISFACTION IN AVIATION PROFESSIONALS IN SOUTH AFRICA

I would like to request permission to invite employees at your organisation to participate in a study examining employees' psychological well-being, organisational support and job satisfaction in the South African civil aviation sector since the Covid-19 pandemic. I am Isira Jayamanna Mohottalalage, an Organisational Psychology Master's student at the University of Witwatersrand. I am conducting the research under the supervision of Professor Fiona Donald and Dr Preven Naidoo (who are full-time academics at the university) as part of the research report required for completing his degree.

The purpose of the study is to gain insight into how psychological well-being and organisational support affect job satisfaction of aviation professionals employees (pilots, cabin crew and air-traffic control) in the aviation sector in South Africa (within the context of the recovery of the industry after Covid-19). We are approaching various organisations in the aviation industry and hope to obtain as large a sample as possible consisting of pilots, cabin crew, air traffic controllers. However, no organisations' names will be requested of participants and organisations' identities will not be reported in any reports. Participation in the study involves completing an online questionnaire about psychological well-being, organisational support, and job satisfaction. This will take approximately 15 minutes.

Employee participation in this study is entirely voluntary, anonymous, and private. Your company name, the names of participants, and other identifying information will not be associated with any data collected, and all data will be kept confidential and securely stored. No individual responses reported will be reported, only trends within the sample. Participants may withdraw from the study at any time until their questionnaire responses are submitted.

The findings of this study will be included in the research report required for my Master's degree in Organisational Psychology, and may be presented at local and international conferences or published in journals or books. Furthermore, the data could be used to benchmark well-being and satisfaction levels in future studies.

If you grant access to employees in your organisation, I will ask you to send them a participant information sheet informing them about the study. Employees who agree to participate will be directed to the questionnaire by clicking on a link. They will then be able to access the questionnaire after providing online consent to participate.

Although there are no direct risks or benefits to your organisation or employees to participating in this study, it is possible that some employees might become more aware of stressors and strains while completing the questionnaire. If they wish to be supported or receive counselling, they may want to contact MAYDAY-SA (012 333 6000, or support@mayday-sa.org.za) or SADAG (0800 456 789 or zane@sadag.org). This information will be provided to them in a participant information sheet.

If you have any questions or concerns about the study, please feel free to contact us. If you have any ethics concerns, please contact the University of the Witwatersrand Human Research Ethics Committee (non-medical) (011 717 1408, or shaun.schoeman@wits.ac.za).

Upon request, an executive summary of the findings will be emailed to you on completion of the study.

Thank you for taking the time to read this and considering granting us access to employees in your organisation.

Yours sincerely

Isira Jayamanna Mohottalalage (2210934@students.wits.ac.za)

Supervisors

Prevendren.Naidoo@wits.ac.za (011 717 1000); Fiona.Donald@wits.ac.za (011 717 4507)

Appendix B: Participant Information Sheet (PIS)

27 April 2023

Dear Aviation Employee

INVITATION TO PARTICIPATE IN RESEARCH:

The study focuses on the topic of Exploring Employee Well-being in the South African Civil Aviation Sector after the Covid-19 Pandemic. We would like to invite you to participate in a study examining employee satisfaction in the South African aviation sector after the Covid-19 outbreak. The study is being conducted by Mr Isira Jayamanna Mohottalalage, an Organisational Psychology Master's student at this university, under the supervision of Professor Fiona Donald and Dr Preven Naidoo, who are full-time academics at the University of the Witwatersrand, as part of the research report required for completing his degree.

The study's goal is to learn how the Covid-19 pandemic has affected the well-being and general satisfaction of employees in the aviation sector in South Africa. Participation in the study entails completing an online questionnaire about the Covid-19 epidemic stressors, organisational support, and job satisfaction. This should take about 10 minutes to complete. Your participation in this study is entirely voluntary, anonymous, and private. Your name and other identifying information will not be linked to any data collected, and all data will be kept confidential and securely stored. Individual responses will not be reported, and only overall trends will be identified. You may withdraw from the study at any time until your questionnaire responses are submitted.

The results of this study will be presented in a research report required for the completion my (Mr Mohottalalage) Master's degree in Organisational Psychology, and may be presented at local and international conferences or published in a journal or book. In addition, the data may be used to benchmark well-being and satisfaction levels in follow-up studies. If you agree to participate, please click on the following link which will take you to the questionnaire: [INSERT LINK HERE]. The first item on the questionnaire asks if you consent to participating. Once you have answered this item, you will be able to access the questionnaire.

Although there are no direct risks or benefits to you to participating in this study, it is possible that you might become more aware of stressors and strains while completing the questionnaire. If you wish to be supported or receive counselling, please contact MAYDAY-SA by calling 012 333 6000, asking for 'Mayday' and they will call you. Alternatively, you can email them at: support@mayday-sa.org.za.

If you have any questions about the study, please contact the researchers directly. If you have any ethics concerns, please contact the University of the Witwatersrand Human Research Ethics Committee (non-medical) (011 717 1408, or shaun.schoeman@wits.ac.za). An executive summary of the findings will be emailed to you on request.

Thank you for considering participating in this study.

Yours sincerely,

Isira Jayamanna Mohottalalage (2210934@students.wits.ac.za)

Supervisors: Prevendren.Naidoo@wits.ac.za (011 717 1000); Fiona.Donald@wits.ac.za (011 717 4507).

Appendix C: Consent Form

Title of Study: PSYCHOLOGICAL WELL-BEING, ORGANISATIONAL SUPPORT, AND JOB SATISFACTION IN AVIATION PROFESSIONALS IN SOUTH AFRICA

Purpose of the Study: This study aims to conduct a quantitative cross-sectional purposive examination of employee well-being in the South African context after the Covid-19 outbreak. Quantitative data on job satisfaction, psychological strain caused by the Covid-19 epidemic, and employer support will be gathered through a survey. Employers, employees, and policymakers in the aviation industry will gain valuable insights from the results of this study, as they can inform efforts to enhance employee well-being in the face of future challenges.

Thank you for agreeing to participate. Your participation is important and will help us better understand the factors that contribute to employee well-being in the aviation sector. The survey would take approximately 10-15 minutes to complete.

Please be assured that your responses will be kept completely confidential. All data collected will be securely stored and only used for the purposes of this research study. Your individual responses will not be shared with any third parties or used for any other purpose.

This survey has been approved by our institutional review board and follows all necessary ethical standards. If you have any questions or concerns about your participation in this study, please do not hesitate to contact us. We appreciate your willingness to contribute to this important research.

By completing and submitting this survey I understand that:

- Participation is voluntary.
- No information that may identify me will be included in the research reports, and my responses will remain strictly confidential
- Individual results will not be provided to management.
- I will not be advantaged or disadvantaged in any way by participating in the study.
- I may withdraw from the study at any stage I understand that data will be stored confidentially and securely on completion of the study.

Ethics Declaration:

This research is being conducted for academic purposes only, by University of the Witwatersrand (Johannesburg). Your participation in this survey is voluntary and you have the right to withdraw at any time without consequence. Please feel free to contact the researchers directly with any queries or comments: Isira Jayamanna Mohottalalage (2210934@students.wits.ac.za).

Your participation in this survey is greatly appreciated and will contribute to our understanding of the topic being studied.

Thank you for your time and consideration.

Appendix D: Biographical questions

Please complete the following background information about yourself. Please note that this information is for statistical purposes only and is not intended to be offensive.

No.	Question	Response Options
	Have you read and understood the Participant Information Sheet?	**Yes / No**
	Do you provide consent to participate in the study?	**Yes / No**
1	**Are you currently employed in the aviation industry in South Africa? If no, what industry are you currently working in? (open-ended)**	**Yes / No**
2	**Gender**	**Male / Female / Other**
3	**Age**	**_____ years**
4	**Marital Status**	**Single / Married / Divorced / Widowed / Other**
5	**Highest Level of Education Completed**	**(Dropdown menu with options)**
6	**Current Aviation Industry Position**	**_____**
7	**Years of Experience in the Aviation Industry**	**_____ years**
8	**Employment Status**	**Full-time / Part-time / Casual / Contract / Other**
9	**Work Schedule**	**Day shift / Evening shift / Night shift / Rotating shift / Other**
10	**Current Company Size**	**(Dropdown menu with options)**
11	**Primary Area of Operation**	**Ground Personnel (please specify) / Cabin Crew / Air Traffic Control / Maintenance / Pilot / Other**
12	**Type of Operation (if applicable)**	**Part 121 / Part 141 / Other / Not Applicable**
13	**Type of Aircraft Currently Operating (if applicable)**	**_____ / Not Applicable**
14	**I am actively looking for an alternative career.**	**Yes/ No**
15	**I am considering changing companies.**	**Yes / No**

16. During the Covid-19 pandemic, what was your status in the aviation industry? **16.1. If other please specify.**	**Retrenched with compensation, retrenched without compensation, furloughed, employed in the same position as before the pandemic, employed in a different company in the same position as before the pandemic, employed in a different company in a different position as before the pandemic, other?** (This will be a drop-down) (open ended)
17. In the last 2 years, were you required to retrain for your current position?	**Yes/ No**
18. In the last 2 years, were you required to renew your license at your own cost to operate in your current position?	**Yes / No**
19. Are you currently working in a different company from before the pandemic?	**Yes / No**
20. Are you currently working on the same aircraft or equipment as before the pandemic (if applicable)	**Yes/ No**
21. If it's a different aircraft or equipment that you need to work with, was the transition in your opinion difficult?	**Yes / No**

Appendix E: Psychological well-being scale

Please indicate the extent to which you agree with the following statements about your psychological well-being, using the following scale:

1- Strongly Disagree
2- Disagree
3- Neutral
4- Agree
5- Strongly Agree

Please feel free to leave out any questions that make you feel uncomfortable.

1. I feel in control of the important aspects in my life.
2. I experience anxiety and stress within my work setting.
3. I successfully handle vexing work-related issues.
4. I effectively adapt to significant changes occurring in my professional life.
5. I am confident in my ability to address occupational challenges.
6. I feel that situations at work generally unfold in my favour.
7. I find it difficult to manage all the professional tasks I am responsible for.
8. I can regulate irritants in my life.
9. I feel accomplished in managing work-related tasks.
10. I value my colleagues.
11. I am proficient at performing my job duties.
12. My work is acknowledged and recognized.
13. I am eager to demonstrate initiative in my work.
14. I derive pleasure from collaborating with my colleagues.
15. I feel self-assured while working.
16. My efforts at work are appreciated by others.
17. My job demands a substantial amount of work.
18. Due to an excessive workload, I often have to operate with limited personnel and resources.
21. I feel emotionally drained from my work.
22. I feel fatigued because I must face another day on the job.
23. I can effectively solve the problems that arise in my work.
24. I feel like I can no longer endure my job.
25. I feel a great sense of personal accomplishment in my work.

Appendix F: Organisational support scale

The following statements represent possible attitudes and perceptions that individuals might hold regarding their employers. We ask that you indicate the degree of agreement or disagreement you have with each statement by selecting one of the five alternatives provided below each one.

It is important to note that there are no right or wrong answers, and your responses will be kept confidential. Your feedback will provide valuable insights into employee perspectives and will help us to identify areas for improvement in organizational policies and practices. We appreciate your honest and thoughtful responses. Please indicate the extent to which you agree with the following statements using the following scale:

1- Strongly Disagree

2- Disagree

3- Neutral

4- Agree

5- Strongly Agree

1. The organisation strongly considers my goals and values.
2. Help is available from the organization when I have a problem.
3. The organization really cares about my well-being.
4. The organisation is willing to extend itself to help me perform my job to the best of my ability.
5. Even if I did the best job possible, the organization notices when I do the best job possible to notice.
6. The organization cares about my general satisfaction at work.
7. The organisation shows concern for me.
8. The organization cares about my opinions.
9. The organization takes pride in my accomplishments at work.

Appendix G: Job satisfaction scale

In this section of the survey, we would like to understand your level of job satisfaction. We ask that you rate your job satisfaction on a scale from 1 to 5, where 1 represents the lowest level of job satisfaction and 5 represents the highest level.

Your job satisfaction is a crucial aspect of your overall well-being and affects important outcomes such as your engagement at work, motivation, and productivity. Understanding your level of job satisfaction will provide valuable insights into your experiences at work and will help us to identify areas for improvement.

Please rate your job satisfaction honestly and thoughtfully. There are no right or wrong answers, and your responses will be kept confidential. Thank you for taking the time to provide us with your feedback.

1 = strongly disagree

2 = disagree

3 = neutral

4 = agree

5 = strongly agree

1. I get along with my supervisors.
2. All my talents and skills are used.
3. I feel good about my job.
4. I receive recognition for a job well done.
5. I feel good about working at this company.
6. I feel close to the people at work.
7. I feel secure about my job.
8. I believe management is concerned about me.
9. Overall, I believe work is good for my health.
10. My remuneration is good.
11. I find my job to be mentally stimulating.
12. I am content with my job.

Appendix H: Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT ETHICS COMMITTEE CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: MAORG/23/03**
PROJECT TITLE:	Stress, organisational support, and job satisfaction in Aviation professionals in SouthAfrica.
INVESTIGATOR	Jayamanna Mohottalalage Isira (2210934)
SCHOOL/DEPARTMENT OF INVESTIGATOR	SHCD/Psychology
DATE CONSIDERED	14 June 2023
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	Low Risk
EXPIRY DATE	31 December 2025
ISSUE DATE OF CERTIFICATE 05 July 2023	Aline Ferreira Correia (Dr Aline Ferreira Correia)
CHAIRPERSON	

cc: Prof. Fiona Donald (Supervisor)

.....-

.....-

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I/we fully understand the conditions under which I am/we are authorized to carry out the abovementioned research andI/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure as approved, I/we undertake to submit an amendment of the protocol to the Committee.

IJM 2024/03/12

Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES