8(2): 146-152 (2024)

Journal of Aviation

https://dergipark.org.tr/en/pub/jav

e-ISSN 2587-1676

Fatigue Among Cabin Crew and Work-Life Balance: A Qualitative Study in the Turkish Context

Seçil Ulufer Kansoy[1*], Özge Erduran Tekin[2]

[1*]Kırklareli University, Lüleburgaz Faculty of Aeronautics and Astronautics, Department of Aviation Management, Kırklareli, Türkiye. (seciluluferkansoy@klu.edu.tr)
[2] National Defense University, Air Force Academy, Department of Humanities and Social Sciences, İstanbul, Türkiye. (oerduran@hho.msu.edu.tr)

Article Info

Received: 22 March 2024
Revised: 03 May 2024
Accepted: 24 May 2024
Published Online: 25 June 2024

Keywords:
Fatigue
Work-life balance
Aviation psychology
Psychological counselling
Cabin crew

Corresponding Author: *Seçil Ulufer Kansoy*

RESEARCH ARTICLE

https://doi.org/10.30518/jav.1456810

Abstract

In the context of literature review, it can be observed that information regarding the fatigue levels of cabin crew generally relies on quantitative data obtained from the flight crew. Considering that cabin crew members also have their own personal lives, it is believed that managing work fatigue and achieving work-life balance are crucial for them to sustain their lives in a healthy manner. However, it is rarely investigated in the literature what the views of cabin crew members are regarding fatigue and what strategies can be employed to reduce fatigue. Therefore, in order to better understand the causes and consequences of cabin crew fatigue, participants' experiences related to fatigue and how fatigue affects work-life balance were examined through semi-structured interviews using phenomenological analysis. Twenty cabin crew employees participated in the study. The analysis revealed three main themes titled "*Perception of fatigue in cabin crew members*, *The impact of fatigue on work-life balance* and *Strategies for coping with fatigue*" along with eight sub-themes that elucidate these themes. Based on the findings, recommendations are provided at the individual and organizational levels to reduce fatigue in cabin crew members, ensure work-life balance, and enhance productivity.

1. Introduction

Especially after the pandemic, significant changes in workload have occurred in many sectors, initiating a new period of adaptation. The aviation industry is one of those sectors. Considering the reduced number of employees and increased workload following the pandemic, one of the best ways to learn about the reasons for fatigue among cabin crews and what can be done to reduce fatigue and establish work-life balance is to thoroughly examine the perspectives of the cabin crew based on their experiences. Cabin crew members are an integral part of ensuring passenger comfort and cabin and passenger safety in commercial flights. However, working in a sector that operates 7/24 presents its own set of challenges for the cabin crew (Berg et al., 2019). Existing studies indicate that the causes of fatigue among cabin crew generally stem from irregular work schedules, long duty hours, circadian rhythm disruptions, sleep deprivation, and high workload (Avers et al., 2011; MacDonald et al., 2003; Nesthus et al., 2007). Particularly due to the physical demands involved in performing tasks related to cabin duties, these individuals significantly differ from the flight crew (Berg et al., 2019). As a result of demanding working conditions, cabin crew members often experience sleep disorders, depression, and fatigue (McNeely et al., 2014). Considering that fatigue can potentially affect the performance and personal lives of cabin crew members, investigating the causes of their fatigue is crucial not only for ensuring work-life balance but also for preventing any safety issues. Initial research on fatigue was conducted in the industrial field, and the effects of fatigue on productivity were discussed (Noy et al., 2011). Studies related to fatigue primarily focused on identifying pilot fatigue during World War II, although there is limited research specifically addressing aviation fatigue and sleepiness, with a predominant focus on pilots (Wen et al., 2021). Fatigue is defined as a state of increased physical and mental weakness accompanying a decrease in alertness (Nelson, 1997). When individuals do not get sufficient rest, increased fatigue can hinder their ability to perform at the desired level (Gander, 2011).

Considering that a significant portion of individuals' day is spent at the workplace and considerable time is dedicated to work, it can be argued that work and family life can greatly influence each other (Carlson and Grzywacz, 2008). It is important for individuals to strike a balance between the demands of their work and their personal lives in order to continue their lives in a positive manner (Lockwood, 2003). Employees may experience stress due to the roles they assume in both their work and family lives, and this stress can lead to a decrease in their performance (Greenhaus et al.,2003). Studies have shown that the nature of the profession, working hours, and working conditions play a significant role in individuals' ability to achieve work-life balance (Crooker et

al., 2002; Pichler, 2009). Given that cabin crews have demanding work conditions, resulting in increased physical fatigue and psychological stress, which can lead to more errors (Kim et al., 2022), it is believed that cabin crew members may struggle to establish work-life balance due to work fatigue.The aim of this study is to examine the factors causing fatigue among cabin crew, how it affects their lives, and to identify possible solutions from their own perspectives based on their fatigue experiences, in order to contribute to the existing literature.

1.1. Literature review

Work-life balance

Work-life balance has gained significant attention in organizational behavior and human resource management research. The concept of work-life balance refers to the equilibrium individuals seek between their work-related commitments and personal lives (Greenhaus and Allen, 2011). This literature review aims to explore the antecedents and outcomes of work-life balance and the strategies used to facilitate it in the workplace. Several factors influence work-life balance. Individual-level factors such as personal values, coping strategies, and individual differences in managing work and personal roles play a significant role (Kalliath and Brough, 2008). Moreover, socio-cultural factors, such as societal norms and gender roles, shape individuals' perceptions and experiences of work-life balance (Byron, 2005). Work-life balance has various individual and organizational outcomes. At the individual level, it is associated with increased job satisfaction (Clark, 2000), stress and burnout (Grzywacz and Carlson, 2007), improved physical and mental health (Hill et al., 2001). Organizational outcomes include increased employee engagement (Bakker and Demerouti, 2017), higher organizational commitment (Allen et al., 2000), improved productivity (Beauregard and Henry, 2009), and reduced turnover intentions (Allen et al., 2000). Organizations adopt various strategies and interventions to promote work-life balance. Flexible work arrangements, such as telecommuting and compressed workweek, have gained popularity (Gajendran & Harrison, 2007). Family-friendly policies, including parental leave and on-site childcare facilities, contribute to work-life balance (Kossek et al., 2006). Individual-level strategies, such as effective time management and boundary management techniques, are also essential for achieving work-life balance (Nippert-Eng, 1996). Work-life balance is crucial for both individuals and organizations. It requires attention to individual, organizational, and socio-cultural factors to create an environment that supports work-life balance. By understanding the antecedents, outcomes, and strategies related to work-life balance, organizations can implement practices that enhance employee well-being and organizational effectiveness. Fatigue among cabin crew members is a critical issue within the aviation industry. The demanding nature of their work, irregular schedules, and long duty hours expose cabin crew members to various factors that contribute to fatigue. This literature review aims to explore the causes and consequences of fatigue among cabin crew, as well as the strategies and interventions employed to mitigate its impact and ensure the well-being and safety of cabin crew members.

Fatigue among Cabin Crew

Fatigue among cabin crew can be attributed to several factors. Irregular work schedules, including early morning or overnight flights, disrupt the circadian rhythm and reduce the quality and quantity of sleep (Avers et al., 2011). Long duty hours, time zone changes, and extended periods of wakefulness further contribute to fatigue (MacDonald et al., 2003). Additionally, the physical demands of cabin crew duties, such as lifting heavy objects and prolonged standing, can exacerbate fatigue (Berg et al., 2020). Furthermore, high workload, multiple flight segments, and unpredictable operational conditions also play a role in cabin crew fatigue (Nesthus et al., 2007).

Fatigue among cabin crew members can have significant consequences on both individual and organizational levels. Fatigue impairs cognitive functioning, attention, and decision-making abilities, which can compromise safety during critical tasks (Nesthus et al., 2007). It also increases the risk of accidents, errors, and incidents during flight operations (McNeely et al., 2014). Moreover, cabin crew members experiencing fatigue are more susceptible to physical and mental health issues, such as sleep disorders, depression, and burnout (McNeely et al., 2014). Fatigue-related impairments can also impact job satisfaction, work engagement, and overall well-being of cabin crew members (Berg et al., 2020).

Various strategies and interventions have been implemented to manage and mitigate fatigue among cabin crew. These include regulatory measures such as flight time limitations, rest requirements, and duty time restrictions imposed by aviation authorities (Federal Aviation Administration, 2022). Fatigue risk management systems (FRMS) have been implemented by airlines to proactively manage and mitigate fatigue risks (Caldwell et al., 2009). Additionally, fatigue awareness and management training programs are provided to enhance cabin crew's understanding of fatigue, its effects, and strategies for its mitigation (Rosekind et al., 1995). Sleep and fatigue education, rest facilities onboard, and supportive organizational cultures that prioritize fatigue management also contribute to addressing cabin crew fatigue (Berg et al., 2019).

Fatigue among cabin crew is a major concern in the aviation industry. The complex interaction of various factors contributes to fatigue, which can have adverse impacts on the safety, well-being and performance of cabin crew members. By understanding the causes and consequences of fatigue and implementing appropriate strategies and interventions, aviation psychology can reduce the risks associated with cabin crew fatigue and ensure the safety and well-being of both cabin crew members and passengers. In this context, the aim of this study is to examine the relationship between cabin crew fatigue and work-life balance through phenomenological analysis. The sub-objectives of the study are as follows:

-What are the themes that explain the fatigue experiences of cabin crew?

-What are the themes explaining cabin crew's work-life experiences?

-What are the themes explaining cabin crew's experiences of the relationship between fatigue and work-life balance?

2. Materials and Methods

In this study, interpretative phenomenological analysis, a research approach within the phenomenological tradition, was employed. Interpretative phenomenological analysis is a method that aims to explore how individuals ascribe meaning to various life experiences and how they perceive and interpret them (Smith et al., 2009). It focuses on how individuals subjectively experience and perceive events, how they go

through the process, and how they make sense of it (Larkin et al., 2006).

The Population and Sample of this Research

In qualitative research, purposive sampling is frequently used to select individuals who can provide detailed information about the phenomenon under investigation. The aim is to identify individuals who have experienced the phenomenon or concept of interest accurately (Creswell and Clark, 2015). When selecting interviewees, the researcher establishes certain criteria within the framework of the research objective. Criteria such as being cabin crew personnel, having at least five years of active experience in the profession, and volunteering to participate in the study were determined. This approach aimed to create a homogeneous study group to observe similarities and differences and obtain detailed information about the phenomenon. As a second criterion, diversity was sought by considering characteristics such as gender, marital status, having children, and receiving psychological support in order to obtain more in-depth data. The study was announced to cabin crew employees, and data were collected through snowball sampling. In snowball sampling, a connection is established with one unit from the population. Then, with the help of that person, contact is made with another person, and the process continues, expanding the sample in a chain-like manner. In this context, the study was conducted with 20 participants. The number of participants in the study is consistent with the average number recommended for phenomenological research (Creswell, 2012). The demographic characteristics of the participants comprising the study group are presented in Table 1.

Table 1. Demographic information of the study group

Participant	Age	Gender	Marital status	Having children or not	Job description	Professional experience	Psychological support
K1	32	Female	Married	No	Cabin attendant	9 years	Not receiving
K2	34	Male	Married	No	Cabin attendant	12 years	Not receiving
K3	34	Female	Single	No	Cabin attendant	10 years	Receiving
K4	30	Male	Married	Yes	Cabin attendant	8 years	Not receiving
K5	42	Female	Married	Yes	Cabin chief	22 years	Not receiving
K6	40	Male	Married	Yes	Cabin chief	19 years	Not receiving
K7	38	Female	Married	No	Cabin chief	11 years	Not receiving
K8	41	Male	Single	No	Cabin chief	20 years	Not receiving
K9	38	Female	Married	Yes	Cabin chief	12 years	Not receiving
K10	26	Male	Single	No	Cabin attendant	6 years	Receiving
K11	43	Male	Married	No	Cabin chief	18 years	Not receiving
K12	27	Female	Single	No	Cabin attendant	7 years	Not receiving
K13	35	Male	Single	No	Cabin chief	11 years	Not receiving
K14	34	Female	Married	No	Cabin attendant	10 years	Receiving
K15	33	Female	Married	No	Cabin chief	8 years	Not receiving
K16	29	Male	Single	No	Cabin attendant	7 years	Not receiving
K17	39	Female	Single	No	Cabin attendant	15 years	Not receiving
K18	41	Male	Married	Yes	Cabin chief	14 years	Receiving
K19	42	Female	Single	No	Cabin attendant	12 years	Not receiving
K20	40	Female	Married	Yes	Cabin chief	14 years	Not receiving

As shown in Table 1, the ages of the participants range from 26 to 43. Ten participants are female, and ten participants are male. Twelve participants are married, while eight participants are single, and six participants have children. Ten participants work as cabin crew members, while the other ten serve as cabin managers. The participants' professional experience ranges from 6 to 22 years. Four participants receive psychological support, while sixteen participants do not receive psychological support.

The Data Collection Method of the Research

A semi-structured interview technique was employed as the data collection tool in this study. While preparing the interview questions, a comprehensive review of phenomenological research was conducted to ensure that the questions provide detailed information about the intended situations. The prepared interview questions were sent to six academic experts in the field, and they were revised based on their suggestions. The revised interview questions were worked on by conducting pilot interviews with three volunteer participants and finalized. Sample question items are presented below:

-Can you introduce yourself? (age, marital status, job description, work experience, working hours, parenthood, receiving psychological support)

-Do you experience moments when you feel tired due to your profession?

-How does your profession affect your experience of fatigue?

-How does fatigue affect your job performance?

-How does work-related fatigue impact your personal life?

-What would be necessary for reducing your fatigue related to work?

-In your opinion, what can be done to decrease occupational fatigue?

-What is necessary for achieving a balance between your personal and work life?

The Research Model

The data analysis of the qualitative data employed the steps of Smith and Osborn's Interpretative Phenomenological Analysis. Given the inherent nature of this analysis method, the researcher's process is dynamic (Creswell, 2012). Following a detailed reading of the data, codes were generated and compiled into a list. Subsequently, these codes were reorganized into themes through a more analytical and theoretical framework. The themes and sub-themes were summarized in tabular form. The analysis of the interviews was performed using the MAXQDA 2020 software. The data were diversified through the generation of interview questions based on expert opinions and consultation with multiple experts during the analysis process. The adequacy and saturation of the emerged themes were examined in conjunction with participant feedback and expert opinions. Confirmation was sought by verifying the participants' understanding of their expressions and meanings. Expert validation was performed by engaging with experts who have knowledge in qualitative research within the aviation and psychology fields. The results of the interviews were evaluated in collaboration with these experts during the confirmation process. The inclusion of participant quotes aimed to enhance interpretive competence. Additionally, to maintain research reliability and prevent personal biases, the researchers employed the bracketing technique (Morrow, 2005).

3. Result

The themes and sub-themes explaining how cabin crew members' experiences of fatigue affect their work-life balance are given in Table 2. The participants were coded as (P1, P2, P3, P4, ...P20) while giving the results of the themes and sub-themes.

Table 2. Themes explaining the effect of participants' fatigue experiences on work-life balance.

	Themes	Sub-themes
Perception of fatigue among cabin crew members	**Theme 1:** The characteristics of this profession	Work hours, Short rest periods, Inability to spend time with family members, Inability to allocate time for oneself
	Theme 2: Finding satisfaction in the profession	Professionalism, Pre-flight preparation, Enjoyment of the job, Liking the work environment
	Theme 3: Adapting to the profession	Adapting to the rewards of the profession, Time management, Being flexible
The impact of fatigue on work-life balance	**Theme 1:** Physical effects	Body aches, Decline in cognitive abilities, Loss of strength, Fatigued physical appearance
	Theme 2: Psychological effects	Sudden mood swings, Feeling of exhaustion, Withdrawal behaviors
	Theme 3: Social effects	Lack of time for family members, Relationship problems, Isolation
Strategies for coping with fatigue	**Theme 1:** Individual coping strategies	Accepting the rewards of the profession, Getting good sleep, Eating healthy, Exercising, Spending time with family members, Socializing with friends, Receiving psychological support
	Theme 2: Organizational coping strategies	Increasing rest periods, Reducing uncertainty in working hours, Avoiding consecutive flights, Showing more respect for employees' personal lives, Enhancing social benefits for employees, Providing psychological support

When examining the statements describing the impact of fatigue on work-life balance as experienced by cabin crew members, it is evident that participants discuss how they perceive fatigue, how fatigue affects their work-life balance, and the individual and organizational strategies to cope with fatigue. Below are examples of statements that constitute the most frequently expressed sub-themes within the theme of the perception of fatigue among cabin crew members.

Examples of statements related to the theme of the perception of fatigue among cabin crew members, forming the most frequently expressed sub-themes, are provided below:

The characteristics of this profession: *"I don't see it as a problem because I know what needs to be done beforehand and I am prepared for it." (K6)*

"Fatigue doesn't negatively affect my job performance because I am accustomed to it. We already receive training during university, and we know what to expect. On the other hand, I believe that every profession has its own challenges, and I think fatigue can be present anywhere. Individuals should come up with their own solutions to cope with it." (K10)

Finding satisfaction in the profession: *"Although I sometimes feel tired due to the nature of my profession, I absolutely love my job. This definitely helps me cope with fatigue." (K17)*

"I get tired and make sacrifices in many aspects, but I truly love my job. Therefore, dealing with negative factors becomes easier for me." (K20)

Adapting to the profession: *"Aviation is particularly an error-free field. That's why we constantly receive trainings, and these trainings are always kept up to date. The importance of safety and security is always emphasized. Being aware of the seriousness of the job, we pay great attention to not let it negatively affect our performance. In fact, our preparation process begins almost 2.5-3 hours before the flight. So, if you have already made this plan in your mind, it is easier to adapt to it." (K8)*

"Once you get used to the demands of the profession and plan your life accordingly, things become a bit easier. After all, our

job requires us to adapt and establish a routine in our personal lives as well." (K18)

Examples of statements representing the sub-themes that explain the impact of fatigue on work-life balance, as highlighted by the participants, are provided below:

Physical effects: *"My job greatly affects my fatigue. Sometimes I forget what I need to do. Sometimes I forget what I was going to say." (K9)*

"My performance is initially fine during the flight, but towards the end, there are declines. Or sometimes sleepiness hits me. This can lead to mistakes. Irregular sleep is a challenging situation." (K12)

Psychological effects: *"I want to dedicate myself to my job. However, due to fatigue, sometimes I cannot perform as well as I want. Or if I focus on my work, my communication may suffer." (K16)*

"Sometimes I can feel unhappy and low in energy because of being tired from my job." (K1)

Social effects: *"Unfortunately, it negatively affects my personal life. I can't spend enough time with my son. There's hardly any personal life left. I got married once, but it didn't work out. My son is my whole personal life, but I can't be there for him during his precious moments. It saddens me, especially during graduations or meetings, etc." (K17)*

"Due to the fast-paced nature of our profession, I have observed in myself and many of my colleagues that when we are tired, we tend to distance ourselves from social life and experience moments of solitude. After long shifts, our bodies crave sleep, rest, and energy replenishment. Therefore, we may seek moments of tranquility and peaceful environments in our personal lives, even if only to some extent." (K15)

Here are some examples of statements that explain the sub-themes, which constitute the theme of coping with fatigue, and were most frequently mentioned by the participants:

Individual coping strategies: *"I believe I should prioritize my exercise routine to reduce my fatigue. Additionally, I haven't been able to see my old friends for a long time. I need to pay more attention to my social life. If I had longer rest periods, I could allocate time for all of them." (K4)*

Organizational coping strategies: *"In order to achieve work-life balance, I need to have more time for my personal life. Currently, my personal life is about resting at home. Because it's a demanding job, having longer rest periods would be beneficial." (K2)*

"Finding balance is challenging. Plans often get disrupted. We include personal activities in our plans, but sometimes the flight schedule changes, and our own plans change as well. Rest and off-days should be increased. Flight schedules should undergo fewer changes. Companies should provide psychological support to their employees. The physiological and psychological effects of flights are already increasing on a daily basis, especially in today's conditions." (K3)

4. Discussion

Cabin crew is an integral component of a healthy flight team. The demanding working conditions often lead to fatigue, which can disrupt the work-life balance of cabin crew and negatively impact their health and performance. To enhance performance and preserve their well-being, cabin crew must establish a balance between their work and personal lives. Despite the significant impact of fatigue on work-life balance, there is a lack of qualitative studies specifically examining the effects of fatigue on the work-life balance of cabin crew in the Turkish context. Understanding the reasons for fatigue and its implications on work-life balance is best achieved by deeply exploring the perspectives of cabin crew members themselves. By sharing their subjective experiences, individuals within the system can provide a clearer understanding of the existing situation. According to the results obtained from this study in line with the objectives and sub-objectives of the research, it was seen that three main themes titled "Fatigue perception in cabin crew, the effect of fatigue on work-life balance and coping strategies with fatigue" and eight sub-themes explaining these themes emerged. When the sub-themes explaining the perception of fatigue in cabin crew are examined, it is seen that the majority of the participants stated that the things that cause fatigue are actually the characteristics of the profession and that it is necessary to accept this, and that getting satisfaction from the profession and adapting to the profession are important factors affecting fatigue. When the sub-themes explaining the effect of fatigue on work-life balance are examined, it is seen that they can be handled separately as physical effects, psychological effects and social effects. The sub-themes obtained from the participant views on coping with fatigue show that it is important to consider coping strategies separately, both individual and organizational.

In the literature, it has been shown that fatigue has a significant effect on the quality of life of cabin crew, which supports the results obtained from this study (Chung & Chung, 2009). Supporting the results of this study, Berg et al. (2019) conducted semi-structured focus group interviews with 25 cabin crew members. Participants identified sleep loss, circadian disruption, inadequate rest, high workload, work environment, lack of company support and inadequate fatigue management training as the main causes of fatigue. The study also emphasises the importance of adequate rest to achieve sufficient restful sleep and work-life balance. It is seen that the results obtained show that the factors affecting the fatigue and work-life balance of the cabin crew members constituting the study group are similar. The ICAO (2016) regulation states that all staff in an organisation should understand that staffing alone cannot eliminate fatigue and should not be an organisation's only fatigue management strategy. However, Aguirre (2005) concluded that the effectiveness of fatigue management training may be reduced when employees are dissatisfied with existing staff or other management and organisational issues. On the other hand, fatigue management training can improve employees' understanding and perceptions of the challenges of staffing and working irregular hours and correct misconceptions about fatigue. According to the results of the study by Kumari and Aithal (2022), emotional labour has a significant negative impact on job performance, while high levels of work-life balance and job satisfaction reduce the negative effects of emotional labour on job performance.

This study aims to investigate the causes of fatigue among cabin crew, examine how fatigue manifests in their personal lives, and explore its effects on their work-life balance. Through this examination, concrete recommendations can be offered to employers, other cabin crew members, and researchers on how to reduce fatigue and improve the establishment of work-life balance. Airlines should establish comprehensive Implementation of Fatigue Risk Management Systems (FRMS) that include fatigue mitigation strategies. This may include scheduling practices that take into account circadian rhythms, ensuring adequate rest periods between flights, and implementing fatigue monitoring and reporting

systems. Offering flexible work schedules can help cabin crew better manage work-life balance. Airlines should explore options such as part-time contracts, job-sharing arrangements, and the ability to request specific duty preferences to accommodate personal commitments. Airlines should develop and promote well-being programs specifically for cabin crew. These programs could include stress management workshops, physical activity initiatives, mental health support services, and resources to maintain healthy lifestyles.

Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. All ethical rules required by scientific research were followed in data collection. For this study, ethics committee approval was obtained from Kırklareli University Publication Ethics Committee on 17.02.2023 with the number E-35523585-302.99-78526.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

References

Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. Journal of Occupational Health Psychology, 5(2), 278-308.

Avers, K. E., Nei, D., King, S. J., Thomas, S., Roberts, C., Banks, J., & Nesthus, T. E. (2011). Flight attendant fatigue: A quantitative review of flight attendant comments (DOT/FAA/AM-11/16). Washington, DC. Retrieved from https://www.faa.gov/data_research/research/med_humanfacs/oamtechreports/2010s/media/201116.pdf

Bakker, A. B., & Demerouti, E. (2017). Job demands resources theory: Taking stock and looking forward. Journal of Occupational Health Psychology, 22(3), 273–285.

Beauregard, T. A., & Henry, L. C. (2009). Making the link between work-life balance practices and organizational performance. Human Resource Management Review, 19(1), 9-22.

Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents. Journal of Vocational Behavior, 67(2), 169-198.

Carlson, D. S., & Grzywacz, J. G. (2008). Reflections and future directions on measurement in work-family research. In K. Korabik, D. S. Lero, & D. L. Whitehead (Eds.). Handbook of work-family integration: Research, theory, and best practices (pp. 57-73).

Caldwell, J. A., Mallis, M. M., Caldwell, J. L., Paul, M. A., Miller, J. C., & Neri, D. F. (2009). Fatigue countermeasures in aviation. Aviation, Space, and Environmental Medicine, 80(1), 29-59.

Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. Human Relations, 53(6), 747–770.

Chung, C. T., & Chung, U. L. (2009). An exploration of quality of life and related factors among female flight attendants. The Journal of Nursing Research: JNR, 17(3), 212–220.

Creswell, J. W. (2012). Educational research: Planning, conducting and evaluating quantitative and qualitative research (4th ed.). Pearson.

Cresswell, J. W., & Clark, V. L. P. (2015). Mixed methods research: Design and Implementation (Y. Dede & S.B. Demir, Trans. Ed.). Anı Publishing.

Crooker, K. J., Smith, F. L., & Tabak, F. (2002). Creating work-life balance: A model of pluralism across life domains. Human Resource Development Review, 1(4), 387- 419.

Federal Aviation Administration. (2022). Flight attendant duty period limitations and rest requirements. Federal Register, 61452-61465.

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. Journal of Applied Psychology, 92(6), 1524-1541.

Gander, P. (2011). Fatigue management in air traffic control: The New Zealand approach. Transportation Research Part F: Traffic Psychology and Behaviour, 4(1), 49–62.

Greenhaus, J. H., & Allen, T. D. (2011). Work–family balance: A review and extension of the literature. Handbook of Occupational Health Psychology, 2, 165-183.

Greenhaus, J. H., Collins, K. M. & Shaw J. D. (2003). The relation between work-family balance and quality of life. Journal of Vocational Behavior, 63(3), 510-531.

Grzywacz, J. G., & Carlson, D. S. (2007). Conceptualizing work–family balance: Implications for practice and research. Advances in Developing Human Resources, 9(4), 455-471.

Hill, E. J., Hawkins, A. J., Ferris, M., & Weitzman, M. (2001). Finding an extra day, a week: The positive influence of perceived job flexibility on work and family life balance. Family Relations: An Interdisciplinary Journal of Applied Family Studies 50(1), 49-58.

International Civil Aviation Organization (2016) Manual for the oversight of fatigue management approaches. ICAO, Montréal, Canada, https://www.icao.int/safety/fatiguemanagement/FRMS%20Tools/Doc%209966.FRMS.2016%20Edition.en.pdfAccessed January 15, 2024.

Kalliath, T., & Brough, P. (2008). Work–life balance: A review of the meaning of the balance construct. Journal of Management & Organization, 14(3), 323-327.

Kerin, A., & Aguirre, A. (2005). Improving health, safety, and profits in extended hours operations (shiftwork). Industrial Health, 43(1), 201–208.

Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work–family effectiveness. Journal of Vocational Behavior, 68(2), 347-367

Kim, J., Yu, M., & Hyun, S.S. (2022). Study on factors that ınfluence human errors: Focused on cabin crew. Int. J. Environ. Res. Public Health, 19, 5696.

Kumari, P., & Aithal, P. S. (2022). Impact of Emotional Labour, Work-life Balance, and Job Satisfaction on Cabin Crews' Job Performance. International Journal of Management, Technology, and Social Sciences (IJMTS), 7(2), 225-240.

Larkin, M., Watts, S., & Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological analysis. Qualitative Research in Psychology, 3(2), 102–120.

Lockwood, R.N. (2003). Work/Life Balance Challenges and Solutions. society For Human Resource Management. 2-10.

McNeely, E., Gale, S., Tager, I., Kincl, L., Bradley, J., Coull, B., & Hecker, S. (2014). The self-reported health of U.S. flight attendants compared to the general population. Environmental Health, 13(1). h

MacDonald, L. A., Deddens, J. A., Grajewski, B. A., Whelan, E. A., & Hurrell, J. J. (2003). Job stress among female flight attendants. Journal of Occupational and Environmental Medicine, 45(7), 703–714.

Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. Journal of Counseling Psychology, 52(2), 250–260.

Nelson, T. M. (1997). Fatigue, mindset and ecology in the hazard dominant environment. Accident Analysis & Prevention, 29(4), 409–415.

Nesthus, T. E., Schroeder, D. J., Connors, M. M., Rentmeister-Bryant, H. K., & DeRoshia, C. W. (2007). Flight attendant fatigue (DOT/FAA/AM-07/21). Washington, DC. Retrieved from http://www.dtic.mil/dtic/tr/ fulltext/u2/ a471470.pdf

Nippert-Eng, C. (1996). Calendars and keys: The classification of "home" and "work" Sociological Forum, 11(4), 563-582.

Noy, Y. I., Horrey, W. J., Popkin, S. M., Folkard, S., Howarth, H. D., & Courtney, T. K. (2011). Future directions in fatigue and safety research. Accident Analysis and Prevention, 43(2), 495–497.

Pichler, F. (2009). Determinants of work-life balance: Shortcomings in the contemporary measurement of WLB in large-scale surveys. Social Indicators Research, 92(3), 449-469.

Rosekind, M. R., Smith, R. M., Miller, D. L., Co, E. L., Gregory, K. B., Webbon, L. L., & Gander, P. H., Lebacqz, V. (1995). Alertness management: Strategic naps in operational settings. Journal of Sleep Research, 4(2), 62-66.

Smith, J. D., Flowers, P., & Larkin, M. (2009). Interpretative phenomenological analysis: Theory, method and research. SAGE Publications.

Van den Berg, M. J., Signal, T. L., & Gander, P. H. (2019). Perceived Workload Is Associated with Cabin Crew Fatigue on Ultra-Long-Range Flights. The International Journal of Aerospace Psychology, 1–12.

Van den Berg, M. J., Signal, T. L., & Gander, P. H. (2020). Fatigue risk management for cabin crew: the importance of company support and sufficient rest for work-life balance-a qualitative study. Industrial Health, 58(1), 2–14.

Wen, C. C. Y., Nicholas, C. L., Clarke-Errey, S., Howard, M. E., Trinder, J., & Jordan, A. S. (2021). Health Risks and Potential Predictors of Fatigue and Sleepiness in Airline Cabin Crew. International Journal of Environmental Research and Public Health, 18(1), 13.

Cite this article: Ulufer Kansoy, S., Erduran Tekin, O. (2024). Fatigue among Cabin Crew and Work-Life Balance: A Qualitative Study in the Turkish Context. Journal of Aviation, 8(2), 146-152.