High Altitudes, Healthy Attitudes: A Study on Wellbeing in Student Pilots



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Abstract

After the Covid pandemic, evidence has become available regarding a range of psychological issues that may affect professional pilots while performing their jobs. This has opened the question of the well-being of student pilots at the collegiate level. As future professionals entering the industry our objective is to evaluate the state of well-being of flight students.

Background

The subject of mental health in aviation is being studied in a new light, as pilots were discouraged to bring openness regarding this delicate subject. Fear of retaliatory practices and strict regulations do not provide a healthy environment for pilots to come forward with their personal issues or concerns.

As collegiate researchers, this raises the question of how early in a pilot's career do many of these emotional problems begin. The focus of this study is to explore if issues related to mental health are identified as early as when a student begins its collegiate endeavor, and if any trends are established with the purpose of minimizing potential emotional implications.

Introduction

The key factors impacting the mental health of university student pilots include the stress from academic and training demands, irregular sleep patterns, anxiety and performance, self-confidence influenced by the competitive environment, and the social support received from family and friends, which is crucial for mitigating feelings of isolation.

Additionally, direct feedback from students is essential for improving the training environment and reducing stress. Recent data shows that nearly 40% of adults in the U.S. reported symptoms of anxiety or depression in 2021, with a particularly strong impact on young adults. This context highlights the importance of addressing these factors to improve the mental well-being of student pilots.

	Fall 2024	Spring 2025
	-Administer a survey on a voluntary basis	-Final Report
	to student pilots from the University of	
S	Oklahoma and the Inter American	-Share results with university students
Step	University of Puerto Rico.	and faculty.
Next	-Collect and analyze data.	-Present results at research conferences , forums.
	-Propose potential remedies if needed.	-Develop guidelines on wellbeing and mental health for aviation students

Research Question

What are the key factors impacting the mental health of university student pilots?

Literature Review

Mental Health: Since college is a crucial developmental time for young adults, it is not surprising that there has been increased attention to mental health in the college-age population in research and outreach. For example, Abdu-Glass et al. (n.d.) found that half of the college students had a psychiatric disorder (e.g., depression, social anxiety, distress, eating disorders) in 2021, 73% of students experienced some mental health crisis, and almost one-third of college students reported feeling so depressed that they had trouble functioning. (Albelo et al., 2022).

Depression and Anxiety: Recent studies indicate that student pilots experience high rates of depression and anxiety, similar to other high-stress academic and professional environments. A 2023 study by Carter et al. reported that nearly 30% of student pilots showed symptoms of clinical anxiety, while 25% exhibited signs of depression (Carter et al., 2023).

Burnout: The combination of rigorous training and academic demands can lead to burnout, characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Lee & Park, 2021).

Sleep patterns: A 2022 study by Hsiao et al. found that even Carter, R., Davis, J., & Lee, M. (2023). Depression and Anxiety Among Student Pilots: Prevalence and Impact. Aviation Health Review. Charbonnier, E., Trémolière, B. T., Baussard, L., Goncalves, A., Lespiau, F., Philippe, A., & Vigouroux , S. L. (2022, February 10). Effects moderate sleep restriction can lead to marked declines in of an online self-help intervention on university students' mental health during COVID-19: A non-randomized controlled pilot cognitive performance and increased errors in flight simulations study. Computers in Human Behavior Reports. https://www.sciencedirect.com/science/article/pii/S2451958822000094 Chen, Y., & Liu, J. (2023). Emotional and Instrumental Support in Student Pilot Training. Aviation Psychology Review. (Hsiao et al., 2022). Davis, R., & Martin, S. (2023). Self-Confidence and Stress Management in Student Pilots. International Journal of Pilot Psychology.

Self-confidence: A 2022 study by Roberts et al. found that self-Times. https://www.latimes.com/california/story/2023-10-26/alaska-airlines-breakdown-spotlights-pilots-mental health-issues confidence is closely linked to decision-making skills in flight Hsiao, S., Lee, C., & Wong, K. (2022). Cognitive Impairments Due to Sleep Deprivation in Flight Simulations. Aviation Psychology training. High self-confidence can improve a pilot's ability to Journal. make quick and accurate decisions, which is critical in high-Johnson, A., Miller, S., & Patel, N. (2023). Anxiety and Depression Among Student Pilots: A Meta-Analysis. Journal of Aviation Medicine. Lee, Y., & Park, J. (2021). Burnout and its Effects on Flight Training Performance. Flight Training Research pressure situations (Roberts et al., 2022). Li, Y., Zhang, R., & Chen, H. (2023). Impact of Sleep Deprivation on Motor Skills and Reaction Times in Student Pilots. International

Social Support: Emotional support from family, friends, and peers is crucial for student pilots. A 2023 study by Chen and Liu found that emotional support helps alleviate stress and enhances overall well-being, contributing to better performance and satisfaction with flight training (Chen & Liu, 2023)

Methodology

Step 5: The impact is to identify potential hazards and create consciousness of healthy habits to avoid future problems

Step 4: The results will be shared with students, faculty, and industry in hopes of bringing awareness and solutions to the

Step 3. The target number of anticipated participants is seventyfive to one hundred (75-100), over eighteen (18) for Oklahoma students and twenty-one (21) years old for Puerto Rico students, of any gender, and currently in-flight training.

INTERAMERICAN

UNIVERSITY OF PUERTO RICO

Step 1: The study

will be conducted

using a survey to

evaluate five (5)

different criteria:

stress, sleep patterns,

anxiety, self-

confidence, social

support, and direct

feedback from

Step 2: The survey

will be administered on

a voluntary basis to

student from the

University of Oklahoma

and the Inter American

University of Puerto

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