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Understanding Mental Health Awareness and Resources in a Collegiate Aviation Program

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The research purpose is to explore mental health awareness among student pilots and offer recommendations on how aviation flight departments can better support students facing mental health challenges in a Collegiate Aviation program. The research begins by categorizing types of mental health disorders and mental health conditions outlined in FAA Part 67 that can disqualify students from pursuing an aviation career. An essential area of the study is the examination of resources available to aviation flight departments and student pilots for aviation-related assistance on general mental health support. The study will be used to explore mental health awareness and the familiarity of mental health resources among students in UVU's aviation flight department. The study will further give insight into a student's tendency towards self-diagnosis, the reluctance to seek advice and information on mental health, and their comfort levels in approaching peers struggling with mental health challenges. The study results will be used to identify priorities and develop an action plan of best practices and resources available for providing support systems for aviation flight training departments. The recommendations and best practices formulated by UVU's flight department can be considered and integrated into other flight training programs.

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Introduction

Whether acknowledged or not, mental health issues have long been a part of aviation. It's a common refrain that flying an aircraft of any kind can be stressful and that stress can have an impact on a person's ability to operate an aircraft effectively. However, stress is a fact of mental health issues that can impact professionals within the aviation and aerospace industries. In recent modern times, several accidents have identified mental health issues as part of the root cause, notably the Germanwings accident (Bureau d'Enquêtes et d'Analyses, 2016). As a result of this and other accidents, mental health issues have come into sharper focus within the realm of aviation and aerospace, and in particular, within the pilot community. This trend of increased awareness impacts all areas, from new students learning to be pilots all the way to experienced pilots at the end of their careers.

However, lacking within this focus was a basic understanding of what resources are currently known to students within a flight training environment. Thus, a study was undertaken to identify the knowledge base that students currently have within a collegiate flight program. Students in the population sample had no formal mental health training program within their curriculum, nor did they have any formal course to teach and identify what mental health issues truly are.

Literature Review

To begin, a discussion on current mental health standards, information, and resources is needed. Current regulations within the Federal Aviation Administration (FAA) list several standards for mental issues within the larger medical standards and certification requirements. (Federal Aviation Administration, 2024a). Title 14, Part 67 of the Code of Federal Regulations lists several disqualifying mental health conditions for each level of medical certificate, as evaluated by an Aviation Medical Examiner (AME) within § 67.107, § 67.107, and § 67.107, respectively. These include a personality disorder, psychosis, bipolar disorder, substance dependence, or any other mental condition that could make "the person unable to safely perform the duties or exercise the privileges of the airman certificate applied for or held" or "reasonably be expected, for the maximum duration of the airman medical certificate applied for or held, to make the person unable to perform those duties or exercise those privileges" (Federal Aviation Administration, 2024a).

To better define these conditions, in 1972, the FAA aligned its terminology for mental health issues with the Diagnostic and Statistical Manual of Mental Disorders (Federal Aviation Administration, 1972). Within the Diagnostic and Statistical Manual of Mental Disorders (DSM), as printed by the American Psychiatric Association, mental health issues like those mentioned within the Code of Federal Regulations are defined with high levels of detail. For example, psychosis is a disqualifying condition within part 67. However, as defined by the regulations, psychosis is a condition in which the individual has either "manifested delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition" or "may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of this condition" (Federal Aviation Administration, 2024). However, within the 5th edition of the DSM (DSM-

IV), psychosis can be defined as a schizotypal (Personality) disorder, a brief psychotic disorder, a schizophreniform disorder, schizophrenia, a schizoaffective disorder, substance/medication-induced psychotic disorder, psychotic disorder due to another condition, catatonia, other specified schizophrenia spectrum and other psychotic disorder, or any unspecified schizophrenia spectrum and other psychotic disorder (American Psychiatric Association, 2015). As such, there is more that goes into the diagnosis of mental health conditions than just what is described within the regulations. In addition, there are temporary mental health conditions that could impact a pilot's ability to effectively fly and manage a cockpit environment, such as brief depressive episodes or momentary inability to deal with the stressors of flight.

In response to the increased focus on Mental Health issues, the FAA established a rulemaking committee to study and clarify mental health standards for pilots. This committee, the Mental Health and Aviation Medical Clearances Aviation Rulemaking Committee, made 24 recommendations, including changing the way the FAA handles medical applications with regard to psychotherapy, creating non-punitive processes for the reporting of previous mental health conditions, establishing peer support programs for mental health issues, enhance mental health decision processes, and clarify medication allowances for mental health issues (Federal Aviation Administration, 2024b).

In addition to the FAA efforts, there are other groups that provide mental health resources and assistance to not only pilots but other aviation professionals. These include the Aviation Medicine Advisory Service (AMAS), Flight Safety Foundation, Aircraft Owners and Pilots Association (AOPA), Mental Health America (MHA), and the Pilot Peer Support Network, which is part of the Air Line Pilots Association International. These outreach efforts range from formal counseling with a licensed medical practitioner (Aviation Medicine Advisory Service, 2024), informal information assistance through a repository of education materials (Aircraft Owners and Pilots Association, 2024), to support through unlicensed peer support groups (Air Line Pilots Association International, 2024). There are also other mental health resources available through non-aviation-specific organizations, such as those already available within a college or university, like the one where this study took place.

Research Methodology

Utah Valley University (UVU) conducted a survey to understand the mental health awareness of pilot students and their familiarity with aviation mental health resources available to students conducting flight training in UVU's School of Aviation Science Flight Department. This research study focused on student awareness within the following areas: FAA CFR Part 67 mental health standards and criteria for pilots seeking a medical certification, mental health concerns not identified under Part 67, and the mental health awareness involving current student pilots within the UVU flight department. In addition to the survey, information was gathered from a literature review.

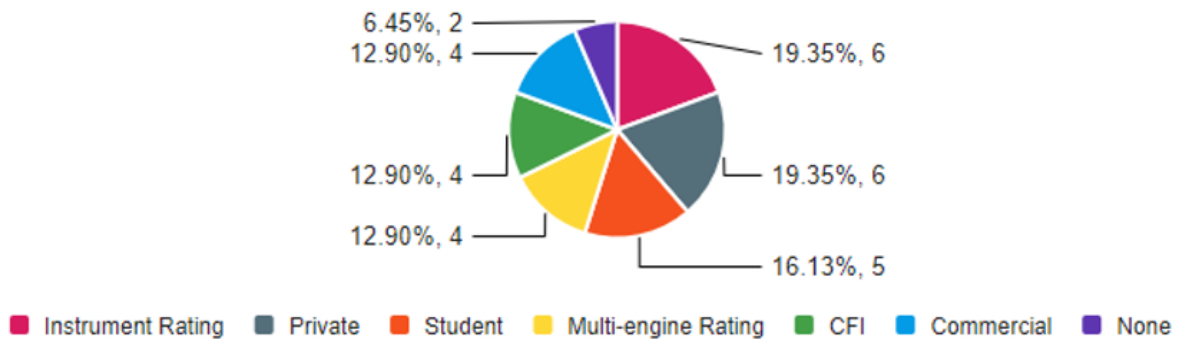
The mental health awareness survey received approval through UVU's Institutional Review Board (IRB), approval number 1653. The qualitative survey was administered online with Qualtrics to collect the data. The internal study limited participation to current professional pilot flight students in UVU's flight department. Participants were required to be eighteen years

of age or older to participate in the study. No personal information was collected, and confidentiality was maintained because of the survey's anonymity.

Survey Population

The survey was sent out to a selected sample population of approximately 160 active professional pilot flight students at UVU, and it resulted in 31 respondents. Of the respondent population, 40% held a private pilot certification with an instrument rating. Pilots holding a student pilot certificate made up the next highest rating at 17%. The remaining respondents were equally divided between commercial, flight instructor, and multi-engine pilots, apart from two respondents who did not identify as holding either a pilot certificate or rating. (See Figure 1)

Figure 1
Survey Population



Survey Analysis

The goal of the survey analysis was to gather data on the awareness of mental health concerns and resources available to student pilots in UVU's aviation flight department. Mental health concerns focused on the tendency of student pilots to self-diagnose and whether students were hesitant to seek advice and information on mental health issues. Data was also collected to determine if student pilots in the flight program were aware of peers who may be struggling with mental health issues and how comfortable they are with approaching their peers to address those mental health concerns.

The survey analysis presented in this report adopts a question-and-response format, accompanied by a brief report on the researchers' observations on the familiarity of mental health resources available for student pilots and the significance of how students address their mental health concerns and that of their peers. Questions from the survey deemed significant to the study are included below.

Question 4 – Do you agree or disagree with the following statement: I am aware of various aviation mental health resources for pilots.

The response to the question indicated that 62% of the respondents were somewhat to not unaware of mental health resources available to pilots. Of those respondents, 27% strongly disagreed with the question, whereas 35% somewhat disagreed. Only 20% of the population indicated that they were aware of aviation mental health resources available to pilots.

The survey included a follow-up question allowing a written response to Question 4. The question asked respondents to explain what specific aviation resources regarding mental health they were familiar with. The following resources were identified by the respondents: Aviation Medical Examiners (AME), social support through academic clubs, general therapy, and UVU's emergency numbers and suicide prevention cards. UVU pilot students must get an FAA medical from an AME before starting flight training. The response indicated that respondents were overall unfamiliar with aviation resources available to pilots other than what was required in UVU's flight training curriculum.

Question 6 – Do you agree or disagree with the following statement: I tend to self-diagnose my own mental health issues.

The response to the question indicated that 70% of respondents tend to self-diagnose their mental health issues. A significant majority of the respondents were self-diagnosing mental health concerns, and the analysis from Question 4 above suggests that pilots in flight training departments were unfamiliar with, and possibly lacked access to, mental health resources.

Question 7 – Do you agree or disagree with the following statement: Students in flight training departments are often reluctant to seek advice and information on mental health.

The response to the question was high, with 98% of respondents somewhat or strongly agreeing that they are hesitant to seek information and advice when it comes to mental health. The overwhelming majority suggest that barriers exist to accessing resources and support and suggest the need for increased support through education and access to the availability of mental health information and resources.

Question 8 – Do you agree or disagree with the following statement: I am aware of peers in the UVU flight department who may be struggling with mental health issues.”

Question 9 – Do you agree or disagree with the following statement: I am comfortable approaching peers in the UVU flight training department who may be struggling with mental health issues to discuss these concerns.

Responses from Question 8 indicated that half of the respondents were aware of peers at UVU who may be struggling with mental health; however, the results from Question 9 resulted in only 42% of respondents that would approach peers to discuss mental health concerns, while 34% would not approach peers. Questions 7 through 9 highlighted the need for not only increased education and awareness of resources but also providing an environment where students feel supported and comfortable with addressing concerns.

Question 10 – What steps do you feel can be taken to improve the awareness of mental health resources available to flight students in the UVUY Flight Department? Are there any areas of concern that you feel should be addressed?

Respondents' written suggestions for increasing awareness of resources included having information provided through open discussions and seminars. Respondents also suggested having information provided by other means, such as flyers, pamphlets, and email announcements. Respondents indicated that steps could be taken to improve awareness through new student orientation training and recurrent training as students progress through flight training. Respondents also suggested providing flight instructors with resources and training to support and educate students on available resources. Comments identified a need to prioritize a flight training culture at UVU centered on support, encouragement, and learning.

Conclusions

The primary result of this research into student pilot mental health awareness is that most students are not familiar with aviation mental health resources available. Nor do they know how to get help or even if help is available. As a result, they tend to self-diagnose and avoid seeking assistance and/or treatment. An additional complicating factor in aviation is that students fear their careers may be negatively affected if they admit to mental health issues. While many are aware of a peer struggling with mental health and are willing to approach them to discuss their concerns, they have little training in how to be effective. Some may fear doing more harm than good if they attempt to help.

At Utah Valley University, the flight department has had experience with students who have had mental health issues resulting in everything from panic attacks to suicide. If students had been more aware of the resources available to them and of the assistance they could have received without jeopardizing their careers, some of these outcomes may have been different. While efforts have been started to address the gaps in mental health awareness and training even prior to this research, it is upon everybody to continue developing more and better ways of combating the effects of mental health issues within our student population.

The first step was to introduce all students and employees to the concept of lifestyle medicine. Proper habits of nutrition, exercise, and rest can go a long way in overcoming the stress experienced by student pilots. A video training program in lifestyle medicine was developed and is now included in all flight courses. UVU Aviation recently started taking advantage of the mobile food pantry that's part of the UVU "CARE" Hub. The Coordinated Access to Resources and Education (CARE) Hub is dedicated to helping students connect to resources that will help them address insecurities around food, housing, health, and safety (UVU "CARE" Hub, n.d.). For example, the mobile food pantry anonymously delivers food to students once a week upon request. While student mental health is not currently under The CARE Hub's purview, it could become a mental health resource with some coordination. Survey participants also identified the value of social support through academic clubs. Interacting with their peers outside of the classroom provides a way to connect with people who may have different interests and who might offer unique perspectives. Aviation students share a powerful bond that is reinforced through their common experience. Collegiate aviation programs should recognize the

importance of these connections and create a variety of social opportunities through aviation-related clubs and organizations. Students should also avoid limiting their social circle to aviators only. A wide selection of gathering opportunities for university students is available, and they should be encouraged to participate in the mental health benefits offered by socialization.

One of the biggest challenges to improving the mental health of our students will be connecting them with current aviation-specific resources. FAA rules are changing, and much of the information available is not current. Mental health professionals with knowledge of aviation issues are difficult to find. UVU needs to develop these resources with guidance from other institutions that are leading the way in various aspects of mental health treatment. All students and employees should have access to a written guide that outlines the steps to take in dealing with a mental health crisis. A network of trained peers and mentors who can take referrals regarding suspected mental health issues could serve as a further link to professional help. The most important thing is awareness. Students must be aware that help is available, and all they have to do is let someone know that they are struggling. It's our job to create this awareness and to make sure there is always someone in the department who is trained to help.

It is important not to overlook another form of prevention. In addition to lifestyle medicine, or as part of it, efforts should also include resilience training for students. Resilience is the ability to recover from a setback and is accomplished through a combination of personal confidence and professional competence (Mayo Clinic, 2024). Resilience training employs the use of countermeasures or coping strategies to overcome stress.

This research helped identify additional questions that should be considered. Among those are what qualifications are necessary and/or what training is required to be effective at intervening in a mental health crisis? In other words, do we have the resources to provide the resources? And at what point should we consider having a mental health professional in-house? Mental health is a delicate but vitally important subject in aviation, and it deserves our attention.

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