Breaking the Pilot Healthcare Barrier

William Hoffman; Elizabeth Bjerke; Anthony Tvaryanas

INTRODUCTION: It has been proposed that pilots face a perceived barrier to seeking medical care due to what a change in health status might mean to their status as a pilot. While this is often common knowledge to pilots and some physicians, this phenomenon has limited research or characterization in the medical literature. In this commentary, we propose a definition for the barrier pilots face in seeking healthcare in hopes of focusing future research efforts.

KEYWORDS: aerospace medicine, preventative medicine, healthcare barrier, healthcare systems.

Hoffman W, Bjerke E, Tvaryanas A. *Breaking the pilot healthcare barrier*. Aerosp Med Hum Perform. 2022; 93(8):649–650.

A recent summit with representatives from across aviation met to discuss an important question: why are certain pilots not getting the mental healthcare they apparently need? The death of an undergraduate aviation student in what was thought to be an aircraft-assisted suicide[10] precipitated the gathering, though similar tragedies have made their way into the news over the years.[8] While this sort of incident is relatively rare, it speaks to a broader problem. A subgroup of pilots suffer from symptoms related to mental health conditions[7] and a proportion may go untreated.

Mental health conditions are generally treatable and people can get better. As physicians caring for patients, it is hard not to ask the obvious question: Why are pilots suffering from a treatable condition? Pilots and some physicians may have a reflexive answer to that question: certain pilots are worried about seeking medical care because of what a change in health status might mean to their status as a pilot (when reported during a regulatory medical exam as required by 14 CFR 61.53).[3] Specifically, if a pilot reports a new medical symptom or condition, they may temporarily or permanently lose their medical certificate. Beyond the potential professional or social repercussions, such an event could lead to an expensive and time-consuming medical evaluation with costs that often fall on the pilot. While this certainly may be the case for mental health conditions, it likely extends to other medical issues too.[5]

While some suggest that pilot healthcare-seeking anxiety is common knowledge, it has limited reference in the medical literature. A brief review of some of the available data includes a 2019 cross-sectional study of 613 U.S. military, commercial, and general aviation pilots which reported that 78.6% disclosed a history of ever feeling worried about seeking medical care and 60.2% reported forgoing or delaying care due to concerns related to their status as a pilot.[5] A follow-on subanalysis showed that female pilots were more likely than female nonpilots to delay medical care if they developed new symptoms of chest pain.[4] These findings are not unique to civilian pilots. A 2019 study of 173 active duty U.S. Air Force pilots showed that only 38% felt comfortable sharing a potentially disqualifying medical concern to their flight surgeon.[6] These findings seem to be accounted for by established frameworks of healthcare usage.[1] The Andersen Behavioral Model of Health Services Use has undergone multiple iterations since its initial publication in in the 1960s with an aim to: 1) understand why people use healthcare services; and 2) aid in the development of policies that permit equitable access to healthcare.[2,9] In applying this expanded model to pilots, multiple psychosocial factors in the framework (defined as factors that influence decision making of planned or intended health behavior) could provide partial explanations for these findings.[9] These factors include the attitudes of pilots (i.e., the perceived likelihood of regaining an aeromedical certificate once lost), social norms (i.e., the perceived change in identification in the face of aeromedical certificate loss), and perceived control (i.e., the subjective loss of autonomy while

From the Department of Neurology, Brooke Army Medical Center, U.S. Air Force, Ft. Sam Houston, TX, USA; the Department of Aviation, University of North Dakota, Grand Forks, ND, USA; and the Civil Aerospace Medical Institute, Federal Aviation Administration, Oklahoma City, OK, USA.

This manuscript was received for review in January 2022. It was accepted for publication in May 2022.

Address correspondence to: William Hoffman, M.D., 3551 Roger Brooke Dr., Ft. Sam Houston, TX 78204, USA; william.r.hoffman43.mil@mail.mil.

DOI: https://doi.org/10.3357/AMHP.6063.2022

awaiting a waiver or special issuance, subsequent anxiety about the process, or lack of knowledge about the special issuance process, etc).

Balancing aviator autonomy against an aviator's risk to others has long been at the heart of the historical duty of a flight surgeon. But while safety certainly must be the foundation, we argue that further research should be done to understand ways to lower the barrier pilots face when seeking care in hopes of encouraging early intervention when needed. While there are likely no easy solutions, aerospace medicine physicians have the opportunity to be leaders in this important issue, including advocating for: 1) rigorous epidemiological research to characterize such a barrier; and 2) prospective research on potential interventions that might permit care-seeking while maintaining safety. Such an effort could have implications in preventative medicine for aviators (i.e., opportunities for early and potentially less expensive intervention to manage a new diagnosis), safety (i.e., the identification of otherwise undisclosed medical symptoms or conditions), and pilot quality of life (i.e., from a pilot's perspective, lowering the perceived risk of seeking medical care).

Research on this topic will likely take place in different settings, so a single definition becomes necessary. The need for such a definition became clear at a recent pilot mental health summit where researchers and industry leaders from around the United States gathered to discuss an effort moving forward. To our knowledge, there is no existing definition for the barrier pilots face when seeking medical care, so we propose one here.

Pilot healthcare barriers are factors that impede healthcare-seeking behavior by individuals who hold a pilot certificate. These barriers include perceptions about potentially negative consequences of new health information on future ability to perform piloting duties.

ACKNOWLEDGMENTS

The authors would like to thank United Airlines, the Airline Pilots Association (ALPA), and the University of North Dakota Department of Aerospace Science for hosting the December 2021 Pilot Mental Health Summit. The authors also thank Adam Willis, M.D., Ph.D., and Quay Snyder, M.D., M.P.H., for their guidance, expertise, and mentorship.

The views expressed herein are those of the author(s) and do not reflect the official policy or position of Brooke Army Medical Center, the U.S. Army Institute of Surgical Research, the Defense Health Agency, U.S. Army Medical Department, U.S. Army Office of the Surgeon General, the Department of the Army, the Department of the Air Force, the Department of Defense, or the U.S. Government.

Financial Disclosure Statement: The authors have no competing interests to declare.

Authors and Affiliations: William Hoffman, M.D., AME, Resident Physician, Department of Neurology, Brooke Army Medical Center, 59th Medical Wing, U.S. Air Force, Ft. Sam Houston, TX, USA; Elizabeth Bjerke, Ph.D., Associate Dean, Department of Aviation, University of North Dakota, Grand Forks, ND, USA; and Anthony Tvaryanas, M.D., Ph.D., M.P.H.&TM, Division Manager, Aviation Safety, Civil Aerospace Medical Institute, Federal Aviation Administration, Oklahoma City, OK, USA.

REFERENCES

1. Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? J Health Soc Behav. 1995; 36(1):1–10.
2. Bradley EH, McGraw SA, Curry L, Buckser A, King KL, et al. Expanding the Andersen Model: the role of psychosocial factors in long-term care use. Health Serv Res. 2002; 37(5):1221–1242.
3. Federal Aviation Administration. Prohibition on operation during medical deficiency, 14 CFR 61.53. Washington (DC): FAA; 1997.
4. Hoffman WR, Barbera RD, Aden J, Bezzant M, Üren A. Healthcare related aversion and care seeking patterns of female aviators in the United States. Arch Environ Occup Health. 2022; 77(3):234–242.
5. Hoffman W, Chervu N, Geng X, Üren A. Pilots' healthcare seeking anxiety when experiencing chest pain. J Occup Environ Med. 2019; 61(9): e401–e405.
6. Nowadly CD, Blue RS, Albaugh HM, Mayes RS, Robb DJ. A preliminary study of U.S. Air Force pilot perceptions of the pilot–flight surgeon relationship. Mil Med. 2019; 184(11–12):765–772.
7. Pasha T, Stokes PRA. Reflecting on the Germanwings disaster: a systematic review of depression and suicide in commercial airline pilots. Front Psychiatry. 2018; 9:86.
8. Politano PM, Walton RO. Analysis of NTSB aircraft-assisted pilot suicides: 1982–2014. Suicide Life Threat Behav. 2016; 46(2):234–238.
9. Travers JL, Hirschman KB, Naylor MD. Adapting Andersen's expanded behavioral model of health services use to include older adults receiving long-term services and supports. BMC Geriatr. 2020; 20(1):58.
10. van Dyke S. 2021, December 17. UND working to protect pilots after student dies in plane crash. Valley News Live. [Accessed June 13, 2022]. Available from https://www.valleynewslive.com/2021/12/17/und-working-protect-pilots-after-student-dies-plane-crash/.