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The Vulnerabilities of Hypoxic Events Within General Aviation

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Background

"All too often, pilots tell me they don't need physiological training because they don't fly that high. The statement points out the general feelings of a large majority of the aviation population. I suppose then the burning question is 'why do we still have aircraft accidents?'" (Boshers, 2015).

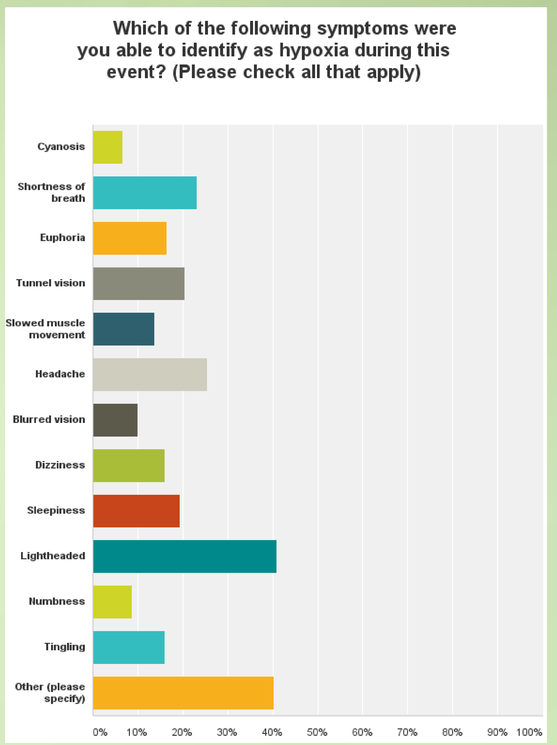
The target study group of general aviation was chosen because:

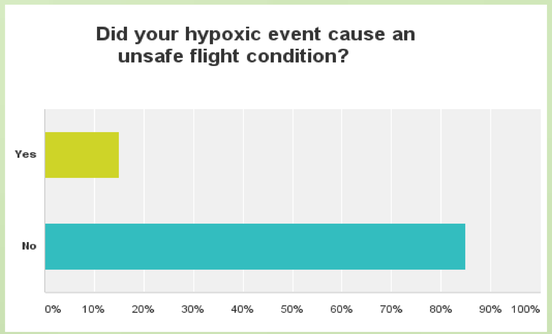
- Less current regulations regarding physiology training
- Invulnerable attitude towards hypoxia

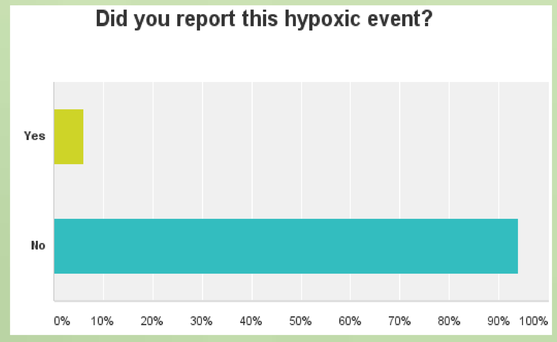
Abstract

The problem this study addresses is the uncertainty of the common circumstances that general aviation pilots find themselves in that create a hypoxic state, their symptoms of hypoxia, as well as whether or not that pilot deemed the event to put them in an unsafe flight condition. The results of this study showed not only those that were impacted the greatest by hypoxia, but also a caring concern for reporting these events to better flight physiology training. The key elements for this research were:

- Level of pilot experience that who have experienced hypoxia
- Reporting statistics
- Symptoms experienced
- Suggestions for bettering flight physiology training







Methods

Survey questions were formulated and went through an IRB process to be published in a Survey Monkey. Participants agreed to being of at least 18 years of age, participating in the study and to have their results shared.

- Survey distributed via email by Curt Lewis and Aircraft Owners and Pilots Association (AOPA)
- Survey open for 2 and a half months
- 343 responses
- Results were compiled and analyzed

Conclusions

General aviation pilots can still fall victim to hypoxia, even at lower altitudes. Although this is still happening, a great number do not see the detriment it can cause during flight, nor do they report experiencing it.

- An emphasis should be put on reporting their experiences
- Recurrent and specific training should be implemented into flight physiology training

References

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