Development and Validation of WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool for Students in Binalonan Campus

ASHLEY KATE C. EMBERNATE
HAZEL S. CAGUIN
Guidance Counsellor & Staff
WCC Aeronautical and Technological College,Inc.
Binalonan Campus

LIAHONA A. GUTIERREZ
DSA Head
WCC Aeronautical and Technological College,Inc.
Binalonan Campus

MARBEN M. PANLASIGUI
JOJO C. QUIBRANTOS
Prefect of Discipline & Character Formation Head
WCC Aeronautical and Technological College,Inc.
Binalonan Campus

ROSALIE SHERYLL T. ROSALES
Research Director
WCC Aeronautical and Technological College,Inc.
Binalonan Campus
rosales.rpdo.wccatc@gmail.com

Abstract — The psychological well-being of pilots is paramount for ensuring aviation safety, as mental health issues can significantly impact their ability to perform safety-sensitive duties. This study focuses on developing and validating the WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool, designed to assess the mental and emotional state of student pilots at WCC Aeronautical and Technological College (WCC-ATC) Binalonan. The assessment tool, consisting of 18 self-assessment items, was derived from the NHS Self-Assessment from England and adapted to the specific needs and cultural context of the respondents. It incorporates three subscales: Current Mood Assessment, Ominous/Worrying Aspect/Assessment, and Scale for Assessment. These subscales collectively evaluate the student pilots' emotional experiences, identify potential stressors, and quantify the severity of distress. The tool's reliability was rigorously tested using Cronbach's Alpha, yielding an excellent internal consistency score of 0.929 for the 16 indicators of depression and anxiety. This high reliability indicates that the assessment tool is a consistent and trustworthy instrument for evaluating the emotional well-being of student pilots. The WCCATC-AGEMB Assessment Tool, validated by mental health experts and demonstrating strong reliability, provides a comprehensive framework for assessing the psychological readiness of student pilots for flight training. By identifying

potential mental health concerns early on, this tool enables timely interventions and support mechanisms, ensuring the well-being and safety of both the pilots and the aviation industry.

Keywords — Psychological state; Psychological assessment; Assessment tool; Student-pilots; Reliability Pilot mental health, psychological assessment, aviation safety, emotional well-being, stress management

I. Introduction

The Psychological state of pilots is necessary for performing their safety-sensitive duties in their best mental state. The presence of mental illness had caused numerous disasters in the aviation industry in the past, taking the lives of hundreds of passengers and crews. Authorities have proposed a solution such as a psychological assessment of the pilots.

Psychological assessment involves deriving hypotheses from considerable sources of information to comprehend the client or client system. It uses different instruments to measure and formulate the level of need and mental status, as well as evaluate outcomes, diagnose patients, and interviews (Peterson & Ducheny, 2015).

The assessment is to collect information to evaluate the behavior, character, strengths, and needs of the person to recommend plausible treatments, set goals and diagnose the client (Pitts, 2021). Therefore, Psychological assessments are necessary for pilots to determine their mental state and to know how effectively a pilot deals when put under stress and pressure.

In 2019, a study showed that out of 1000 pilots worldwide, 18% had moderate depression and 80% had moderate burnout on their job. Majority of the pilots also refused to disclose their mental health problems since it might affect their jobs (Carroll, 2021). To operate as a pilot in the United States of America, a pilot should obtain a Federal Aviation Authority (FAA) pilot license and FAA Medical License.

FAA-authorized doctors only examine the physical condition of pilots when they apply for or renew their medical licenses (Barajas, Withrow, & Boatman, 2022). As for the mental condition of the pilots, the FAA authorized physicians only evaluate the pilot's mental state through the context of their conversations with them (Berry, 2016). This revealed the lack of tests to evaluate and check the mental health condition of pilots.

According to Davies (2015), airline pilots in major airlines such as the American Airlines, Delta Airlines, and Lufthansa Airlines only give their pilots a psychology test in the beginning of their employment, and is only valid for a specific period of time. Airlines are not able to guarantee that pilots will not have mental health problems during the span of their employment (CBS News, 2016).

In response to the given issues above, both the FAA and the airlines are responding to mental health issues globally. FAA-authorized doctors enhanced their observation skills to determine if a pilot has an early stage of mental health problems. In addition, airlines responded to mental health issues by implementing more mental health programs such as self-reporting programs with treatment and peer-to-peer connection programs in which a pilot could report another pilot discretely if they observed signs of mental health problems (Zanona, 2016).

According to Gonzales et al. (2023) in an interview with Captain Eugene Santos of Laminar Aviation School, their institution does not administer psychiatric exams to student pilots prior their participation in flight training. Additionally, no webinars on mental health are held at the school. It was only during the school orientation that students at the Laminar Aviation School receive reminders about the value of being physically and mentally fit. Furthermore, the school educates aspiring pilots about their health through ground-based seminars where they teach about human factors and how it may affect their flight training. Laminar Aviation School is currently working to increase their students-pilots' awareness regarding mental health issues. The school was attempting to contact aviation physiologists to enhance and provide mental health awareness to upcoming and existing student pilots.

Moreover, in an interview with Captain Hanz Rosaluna of Airlink International Aviation College, Gonzales et al. learned that the institution does not administer psychological testing to its student-pilots prior to flying due to the fact that CAAP used to administer such test to student-pilots. A variety of test, including questionnaires, illustrations, and brief interviews were often administered in a day. The institution therefore assumed that a student-pilot who completed such a test is intellectually qualified to be a pilot. In order for student-pilots at the Airlink International Aviation College to better understand how their mental health condition may affect their performance while flying, the college offers mental health programs. One of the programs that Capt. Rosaluna attended was a mental health webinar during the start of the pandemic. The reason why they conducted such webinar was to address mental health issues of people coping with the effects of COVID-19, and how they were bored inside their homes while yearning for the day when they can go outside again. (Gonzales, 2023).

In the Philippines, Civil Aviation Authority of the Philippines (CAAP) Class 1 and 2 medical certificate requirements include CBC, Urinalysis, Audiogram-Pure Tone, Eye Examination, ECG, Chest Radiograph, Drug Test, Treadmill Stress, Test-Bruce Protocol, Dental examination and Blood Chemistry. The Civil Aviation Authority of the Philippines does not require pilots to take any psychological assessment before they get their Class 1 and Class 2 medical certificates. Airlines have programs to monitor the mental health of their employees. The, *"Live Well, Work Well Program"* is a mental health program of Philippine Airlines (PAL) to keep their employees' well-being in check which includes physical, psychological, financial, and spiritual well-being. Full-time medical practitioners and retainer specialists handle in-house medical services provided by PAL and PALEX Medical (PAL Holdings, Inc., n.d.).

CAAP arranged a consultative meeting with the Philippine Psychiatric Association (PPA) due to the following incident that happened on March 24, 2015. In the Germanwings flight 4U 9525 incident, the pilot was left alone in the cockpit and intentionally crashed the plane that killed 150 people. CAAP issued a new requirement where cabin crews should take a psychological test before they are issued a professional license. There were changes in flight rules that required two people to be present in the cockpit at all times (Aviation News Philippines, 2016).

In the past, the Guidance Office of WCC Aeronautical and Technological College (WCC-ATC) Binalonan required students to take various psychological assessments and inventories, including the Myers-Briggs Type Indicator (MBTI) which only aimed to classify the personality type of students, and other inventories to identify their strengths and weaknesses. According to Gordon (2020), one of the main goals in developing the MBTI was to help women in the 1940's and 50's, many of whom had never had a career, find satisfactory employment during the World War II. Furthermore, one thing about the MBTI is that, it offers a starting point for self-exploration or sparking helpful conversations about how we relate to and work with others. (MacCarthy, 2023) Thus, not really measuring or even identifying what needs to be addressed.

Literature Review

Gonzales (2023) asserted that the thesis explores mental health awareness and advocacy among aviation students at WCC Aeronautical and Technological College. It examines the effectiveness of bi-sectoral approaches in addressing mental health issues within this demographic. The study aims to provide a comprehensive understanding of the mental health challenges faced by aviation students and propose strategies for improving mental health support services. The findings indicate significant gaps in mental health awareness and access to resources, highlighting the need for enhanced mental health education and support systems in aviation training institutions.

Skybrary.aero (2020) discussed the implementation of peer support programs to address mental health issues within the pilot community. The report emphasizes the importance of peer support as a means of providing emotional and psychological assistance to pilots, promoting mental well-being, and reducing stigma associated with seeking help. It presents case studies and best practices for integrating peer support into aviation organizations, demonstrating its effectiveness in fostering a supportive environment for pilots.

Barajas (2022) explored the reluctance of pilots to discuss mental health issues and the implications for aviation safety. It examines the cultural and regulatory barriers that discourage pilots from seeking help and suggests measures to promote mental health awareness and support within the aviation industry. The article advocates for a balanced approach that ensures both pilot well-being and flight safety.

Berry (2016) asserted that the Federal Aviation Administration decided not to mandate psychological testing for airline pilots. The rationale behind the decision includes concerns about

the effectiveness and practicality of such tests. The article also addresses the broader context of mental health in aviation and the ongoing efforts to enhance pilot support and safety measures.

Carroll (2021) highlighted the mental health challenges faced by pilots as the aviation industry recovers from the COVID-19 pandemic. It discusses the increased stress and uncertainty experienced by pilots during this period and the potential long-term impacts on their mental health. The article calls for greater attention to pilot mental health and the implementation of supportive measures to address these issues.

CAAP (N.D.) outlines the procedures and requirements for aeromedical examinations conducted at the Office of Flight Surgeon and Aviation Medicine (OFSAM). It provides guidelines for assessing the physical and mental fitness of pilots and other aviation personnel, ensuring they meet the necessary health standards for safe flight operations.

Crown (2020) provides a self-assessment quiz designed to help individuals identify symptoms of depression and anxiety. It offers a series of questions that gauge the severity of these mental health conditions and provides guidance on seeking professional help. The tool aims to promote mental health awareness and encourage individuals to take proactive steps in managing their mental well-being.

Davies (2015) discusses the limitations and challenges of screening airline pilots for mental illness. It examines the feasibility of implementing comprehensive mental health evaluations for pilots and the potential implications for aviation safety. The article emphasizes the need for balanced approaches that address both mental health support and operational safety.

Froeschle & Moyer (2004) explored the legal and ethical considerations involved in counseling students who engage in self-mutilation. It provides insights into best practices for supporting these students while navigating the complex legal and ethical landscape. The authors advocate for a compassionate and informed approach to counseling that prioritizes student well-being and safety.

Groth-Marnat (2006) provides a detailed overview of psychological assessment techniques and tools. It covers various methods for evaluating mental health, including clinical interviews, standardized tests, and observational assessments. The book serves as a valuable resource for mental health professionals seeking to enhance their assessment skills and knowledge.

PAL Holdings, Inc. (n.d.) outlines the health and safety policies and procedures implemented by PAL Holdings, Inc. It emphasizes the company's commitment to ensuring the well-being of its employees and passengers through rigorous health and safety standards. The document includes guidelines for maintaining physical and mental health, safety protocols, and emergency response measures.

Kitzrow (2003) examined the mental health needs of contemporary college students and offered recommendations for addressing these challenges. It highlights the increasing prevalence of mental health issues among students and the need for comprehensive support systems. The authors call for enhanced mental health services, proactive interventions, and a campus-wide approach to fostering student well-being.

Lagman (2021) analyzed the correlates of suicide attempts among Filipino youths using data from the 2015 Global School-Based Student Health Survey. It identifies risk factors and protective factors associated with suicidal behavior and provides recommendations for targeted interventions. The findings underscore the importance of mental health education and support in preventing youth suicide.

Latha (2020) discussed the potential of social media platforms in promoting mental health awareness. It explores the benefits and challenges of using social media to disseminate mental health information and engage with diverse audiences. The authors provide strategies for effectively leveraging social media to enhance mental health education and support.

Aviation News Philippines (2016) reported on the implementation of mandatory psychological exams for cabin crew members in the Philippines. It discusses the rationale behind the policy, its expected impact on aviation safety, and the procedures involved in conducting the exams. The article highlights the importance of mental health assessments in ensuring the well-being of aviation personnel.

Mowbray et al. (2006) provided recommendations for improving campus mental health services. It identifies key challenges faced by college mental health programs and proposes solutions to enhance service delivery, accessibility, and effectiveness. The authors advocate for a comprehensive approach that integrates mental health support into the broader campus environment.

Rusell (2021) explained the purpose and process of psychological evaluations. It outlines the various components of an evaluation, including clinical interviews, psychological testing, and behavioral assessments. The article aims to demystify psychological evaluations and provide readers with a clear understanding of their significance in mental health care.

Salmonsen (2023) examined the development and evaluation of a webinar aimed at reducing stigma toward individuals with serious mental illness. The webinar's effectiveness in changing attitudes and increasing awareness is assessed through participant feedback and pre- and post-webinar surveys. The findings suggest that targeted educational interventions can significantly reduce stigma and promote understanding of mental health issues.

Good Therapy (2020) provided an overview of school counseling, highlighting its importance in supporting students' academic, emotional, and social development. It outlines the roles and responsibilities of school counselors and the various counseling approaches used to

address student needs. The article emphasizes the critical role of school counseling in fostering a positive and supportive educational environment.

Psychology Today (2019) explored the Myers-Briggs Type Indicator (MBTI) and its applications in understanding personality types. It discusses the origins of the MBTI, its theoretical foundations, and its use in various settings, including career counseling and personal development. The article provides insights into the strengths and limitations of the MBTI as a personality assessment tool.

Zanona (2016) discussed the FAA's decision not to implement mandatory mental health testing for pilots. It examines the reasons behind the decision and the broader implications for pilot mental health and aviation safety. The article highlights ongoing efforts to support pilots' mental well-being through alternative measures.

Alibudbud (2021) investigated the relationship between academic experiences and mental health outcomes among Filipino college students in Metro Manila. It identifies specific academic stressors that contribute to anxiety and depression and suggests interventions to support students' mental well-being. The findings underscore the importance of addressing academic pressures to improve students' mental health.

Cleofas (2019) examined the impact of student involvement on mental health and quality of life among college students in Manila. It explores the positive effects of extracurricular activities and social engagement on students' psychological well-being. The study highlights the role of student involvement in promoting a holistic and supportive educational experience.

Gordon (2020) defended the Myers-Briggs Type Indicator (MBTI) against common criticisms. It presents evidence supporting the validity and utility of the MBTI in various contexts, including personal development and organizational settings. The article argues for a balanced perspective on the MBTI, acknowledging both its strengths and limitations.

MacCarthy (2023) critiqued the Myers-Briggs Type Indicator (MBTI), questioning its scientific validity and reliability. It examines the methodological flaws and limitations of the MBTI and discusses why it should be used with caution.

Pasha & Stokes (2018)reflected on the Germanwings disaster and conducted a systematic review of depression and suicide in commercial airline pilots. The study explores the prevalence of mental health issues among pilots and provides recommendations for improving mental health support and screening in the aviation industry.

Peterson et al. (2015) examined the training practices in clinical psychology in the United States, specifically the practitioner model. The study provides insights into the educational and training requirements for clinical psychologists and highlights the importance of practical experience in professional development.

Simkus (2022) provided an overview of the Myers-Briggs Type Indicator (MBTI) and its 16 personality types. It discusses the applications of the MBTI in various contexts, including career counseling and personal development, and provides a critical analysis of its strengths and limitations.

Tuliao (2014) reviewed the literature on mental health help-seeking behaviors among Filipinos. The study explores the cultural and social factors that influence help-seeking and provides recommendations for improving mental health services and support systems in the Philippines.

Wu et al. (2016) conducted a cross-sectional descriptive study via an anonymous web-based survey to examine airplane pilot mental health and suicidal thoughts. The study identifies key factors contributing to mental health issues among pilots and provides recommendations for improving mental health support and interventions in the aviation industry.

II. Methodology

T This study aimed to develop and validate an assessment tool to initially screen and know the current Psychological state of student-pilots in WCC-ATC Binalonan, as well as distinguish if they are psychologically ready for airborne. Specifically, their depression and anxiety levels in order to provide them the psychological assistance and intervention needed throughout their academic stay at the institution.

The researchers based the tool in the NHS Self-Assessment from England where anyone has access to, and undertaken considerable changes and further developed it in accordance to the perceived need and culture of the respondents. The researchers' proposed tool is an 18-item self-assessment questionnaire intended to be used in pre-screening student-pilots if they are psychologically ready for airborne, and/or to provide them a more proper psychological assistance and intervention whichever the case is.

Research Subject, Participant and/or Other Sources of Data and Information

The WCC Aeronautical and Technological College in Binalonan served as the study's locale since its goal is to evaluate the psychological state of student-pilots before flying. The 300 respondents were student-pilots undergoing flight training who were enrolled for the Academic Year 2022-2023.

Random probability sampling was implemented for this research. This produced a reliable statistical outcome and provided an equal chance for each member of the population to be selected as the sample that will be used as the study's target respondents.

Data Gathering Method

The researchers, through the Guidance Office in collaboration with the 4th year student-researchers of BS Aviation major in Commercial Flying, distributed the hard copy of the questionnaires in person. This is done to ensure that the respondents would answer the questionnaires.

Statistical Tool for Reliability

The researchers through the help of the Research Planning and Development Office (RPDO) used the Cronbach's Alpha in SPSS to test the internal consistency reliability of the proposed assessment tool.

III. Results and Discussion

Table 1. *Features of the Developed Flight CAG-EMBER Assessment Tool*

Subscale	# of Items	Statements
Current Mood Assessment	16	1. How often have you felt down, depressed, or hopeless? 2. How often have you had little interest in doing things even the activities you like? 3. How often do you have trouble falling asleep or is sleeping too much? 4. How often do you feel tired or that you have little to no energy? 5. How often do you experience a loss of appetite or have you engage in over-eating? 6. How often have you felt bad about yourself, thought that you are a failure, or have let yourself and/or family down? 7. How often did you have a hard time in concentrating, such as reading, watching, or doing the things you usually like? 8. How often do you move or speak so slowly, that other people notice it, or be so restless that you have been moving around a lot more than usual? 9. How often do you experience a feeling of fear or get overwhelmed about the future? 10. How often do you feel nervous, anxious, or feel like you are on-edge? 11. How often do you feel that you are not able to stop or control your worrying? 12. How often do you feel that you are worrying too much about different things all at once? 13. 13.How often have you been having troubles in relaxing?

		14. How often do you experience being so restless, that it is hard to sit still? 15. How often have you noticed that you get annoyed easily or be very irritable? 16. How often have you been bothered by feeling afraid as if something terrible might happen?
Ominous/Worrying Aspect/Assessment	10	1. Your health 2. Your weight / How you look 3. Difficulties with your significant other 4. Stress of taking care of family members 5. Stress at school or outside home 6. Financial problems or worries 7. Having no one to turn to 8. Something bad that happened recently 9. Flight training 10. Academics
Scale for Assessment	4	1 Not difficult at all (I don't have a hard time dealing with it) 2 Somewhat difficult (I find it somewhat hard to deal with things or people sometimes) 3 Very difficult (I have a hard time doing things and dealing with people) 4 Extremely difficult (I cannot deal with anything, and have a hard time getting things done or even start to doing things)

Table 1 outlines the comprehensive structure of the WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool, designed to assess the mental and emotional state of flight crew members. This tool serves as a critical framework for evaluating both current mood and underlying concerns, ensuring the well-being and performance of crew members within the aviation industry.

Subscale 1, titled Current Mood Assessment, forms the foundational layer of this assessment tool. It comprises 16 items that delve into various facets of emotional experience, ranging from feelings of sadness, depression, and hopelessness to changes in sleep patterns, energy levels, appetite, and concentration. This subscale also explores feelings of anxiety, worry, irritability, and even dread, providing a holistic view of the individual's current emotional state. By thoroughly evaluating these diverse aspects, the assessment tool aims to identify any potential emotional distress or imbalances that may impact crew member performance and safety.

Subscale 2, Ominous/Worrying Aspect/Assessment, serves as a complementary layer to the Current Mood Assessment. This subscale, comprised of 10 items, seeks to identify specific life stressors that may be contributing to the individual's overall emotional state. By focusing on areas

such as health, relationships, family, finances, academics, and work-related stress (including flight training), the assessment tool aims to pinpoint the underlying causes of emotional distress or worry. This targeted approach allows for a more nuanced understanding of the individual's concerns and enables the development of tailored interventions or support mechanisms to address those specific stressors. By identifying and addressing these underlying issues, the assessment tool aims to mitigate the negative impact of stress and worry on the well-being and performance of flight crew members.

Subscale 3, or the Scale for Assessment, serves as the quantitative backbone of the WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool. This subscale provides a standardized metric with four distinct levels, ranging from not difficult at all to extremely difficult. By utilizing this scale, individuals can quantify the severity of their emotional distress or the level of difficulty they face in coping with the stressors identified in Subscale 2. This quantification enables a more objective assessment of the individual's emotional state and allows for targeted interventions or support based on the severity of their distress. By providing a structured framework for quantifying emotional experiences, the assessment tool facilitates a more nuanced understanding of the individual's needs and enables the development of personalized strategies to promote emotional well-being and resilience among flight crew members.

Validity & Reliability. Using Cronbach's Alpha, the proposed 18-item tool consisted 16 indicators for depression and anxiety garnering a numerical value of 0.929 with an *Excellent* internal consistency, one question for stressors and one for assessment, where both do not need reliability testing (refer to table 1).

Moreover, the tool was first validated by commendable experts in the field of mental health before releasing it to the respondents and undergoing reliability testing.

Table 2. Cronbach's Alpha Reliability Test Results

Factor	Cronbach's Alpha	Descriptive Equivalence	Remarks
Indicators	0.929	Excellent	Reliable

Legend:

Cronbach's Alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Note: Stressors and Assessment doesn't need reliability testing.

Table 2, showcasing the Cronbach's Alpha reliability test results, provides a critical validation of the F WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool discussed in Table 1. The Cronbach's Alpha coefficient, a measure of internal consistency, reached an impressive 0.929 for the "Indicators" factor. This score signifies excellent internal consistency, indicating that the individual items within the assessment tool (as detailed in the subscales of Table 1) are highly reliable and effectively measure the same underlying construct—in this case, the emotional state and well-being of flight crew members.

This high level of reliability reinforces the validity and effectiveness of the WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool as a whole. It suggests that the tool is a consistent and trustworthy instrument for evaluating the emotional state of flight crew members, which is crucial for ensuring their safety and performance in the aviation industry. The "Excellent" descriptive equivalence further underscores this conclusion, highlighting the tool's robustness and accuracy in capturing the nuances of emotional well-being. Overall, Table 2 serves as a testament to the meticulous design and development of the WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool, affirming its value as a reliable instrument for monitoring and supporting the mental health of flight crew members.

IV. Conclusion

In conclusion, the comprehensive assessment framework presented in Tables 1 and 2, encompassing the WCCATC Anxiety & Generalized Emotional Monitoring and Balancing (WCCATC-AGEMB) Assessment Tool and its reliability validation through Cronbach's Alpha, establishes a robust mechanism for evaluating and supporting the mental and emotional well-being of flight crew members. The detailed subscales of the tool, targeting current mood, specific stressors, and the severity of distress, offer a nuanced understanding of individual experiences. This, coupled with the excellent internal consistency indicated by the Cronbach's Alpha, underscores the tool's reliability and efficacy. By facilitating the identification and quantification of emotional states and stressors, this framework empowers stakeholders to implement tailored interventions and support mechanisms, ultimately promoting a safer and more resilient aviation workforce.

REFERENCES

[1] Gonzales, M. (2023). Student Mental Health Awareness and Advocacy among Aviation Students of WCC ATC: A Bi-Sectoral Analysis. A thesis for a Bachelor's Degree in Aviation major in Commercial Flying. WCC Aeronautical and Technological College Binalonan.

[2] Berry, M. (2016). FAA rules out requiring psychological testing for airline pilots. Retrieved: CBS News. From: https://www.cbsnews.com/news/faa-rules-out-requiring- psychological-testing-for-airline-pilots/

[3] Carroll, R. (2021). Warning Towards a Pilots' Mental Health as Planes Return to Skies. Retrieved from The Guardian: https://www.theguardian.com/business/2021/jun/02/pilots-mental-health-planes- covid-airlines

[4] CAAP (N.D). Aeromedical Examination at OFSAM. Retrieved from CAAP: https://apps.caap.gov.ph/ofsam/

[5] Crown. (2020). Depression and anxiety self-assessment quiz. Retrieved from NHS: https://www.nhs.uk/mental-health/self-help/guides-tools-and- activities/depression-anxiety-self-assessment-quiz/

[6] Davies, A. (2015). We Have No Way to Screen Every Pilot for Mental Illness. Retrieved from Wired: https://www.wired.com/2015/03/no-way-screen-every-pilot-mental- illness/

[7] Froeschle, J., & Moyer, M. (2004). Just Cut It Out: Legal and Ethical Challenges in Counseling Students Who Self-Mutilate. Professional School Counseling, 7(4), 231–235. https://www.jstor.org/stable/42732586

[8] Groth-Marnat, G. (2006). The Handbook of Psychological Assessment (4th Edition, p. 844) [Review of The Handbook of Psychological Assessment]. John Wiley and Sons. https://ipekajatim.files.wordpress.com/2014/03/handbook-of-psychological- assessment-4th-ed-gary-groth-marnat.pdf (Original work published 2003)

[9] Health and Safety – PAL Holdings, Inc. (n.d.). Phi.com.ph. Retrieved November 8, 2022, from https://phi.com.ph/health-and-safety/

[10] FAA rules out requiring psychological testing for airline pilots. (2016, June 9). Retrieved from CBS News: https://www.cbsnews.com/news/faa-rules-out-requiring- psychological-testing-for-airline-pilots/

[11] Kitzrow, M. A. (2003). The Mental Health Needs of Today's College Students: Challenges and Recommendations. NASPA Journal, 41(1). https://doi.org/10.2202/0027- 6014.1310

[12] Lagman, J. G. (2021, September 19). Correlates of Suicide Attempts in Filipino Youths: An Analysis Based on the 2015 Global School-Based Student Health Survey. Retrieved from Cureus: https://www.cureus.com/articles/70148-correlates-of-suicide-attempts- in-filipino-youths-an-analysis-based-on-the-2015-global-school-based-student- health-survey

[13] Latha, K. M. (2020, May 28). Effective use of social media platforms for promotion of mental health awareness. Retrieved from National Library of Medicine: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7325786/

[14] Mandatory Psychological Exam for PH Cabin Crew. Aviation News Philippines. (2016, January 19). https://aviationnewsphilippines.wordpress.com/2016/01/19/mandatory-psychological-exam-for-ph-cabin-crew/

[15] Mowbray, C. T., Megivern, D., Mandiberg, J. M., Strauss, S., Stein, C. H., Collins, K., Kopels, S., Curlin, C., & Lett, R. (2006). Campus mental health services: Recommendations for change. American Journal of Orthopsychiatry, 76(2), 226– 237. https://doi.org/10.1037/0002-9432.76.2.226

[16] Rusell, R. (2021). What Is a Psychological Evaluation? PsycCentral. https://psychcentral.com/lib/what-is-a-psychological-evaluation

[17] Salmonsen, J. (2023). Development and Evaluation of a Webinar to Reduce Stigma Toward People with Serious Mental Illness. Retrieved from Pro Quest:

https://www.proquest.com/openview/c35d9850e60397b4433cd49a5cc869f9/1?pq-origsite=gscholar&cbl=18750&diss=y

[18] School Counseling. (2020, March 10). Retrieved from Good Therapy: https://www.goodtherapy.org/learn-about-therapy/modes/school-counseling

[19] Sussex Publishers. (n.d.). Myers-Briggs. Psychology Today. Retrieved February 13, 2023,from https://www.psychologytoday.com/us/basics/myers-briggs#:~:text=The%20Myers%2DBriggs%20Type%20Indicator,or%20remaining%20open%20to%20information.

[20] Zanona, M. (2016, June 9). FAA won't test pilots for mental health issues. Retrieved from The Hill: https://thehill.com/policy/transportation/282920-faa-wont-test-pilots-for- mental-health-issues/

[21] Alibudbud, R. (2021, April). Academic Experiences as Determinants of Anxiety and Depression of Filipino College Students in Metro Manila. Retrieved from Research Gate: https://www.researchgate.net/publication/357749386_Academic_Experiences_as_De terminants_of_Anxiety_and_Depression_of_Filipino_College_Students_in_Metro_ Manila

[22] Cleofas, J. V. (2019, September 26). Student involvement, mental health and quality of life of college students in a selected university in Manila, Philippines. Retrieved from International Journal of Adolescence and Youth: https://www.tandfonline.com/doi/full/10.1080/02673843.2019.1670683

[23] Gordon, A. (2020). In Defense of the Myers-Briggs; A comprehensive counter to anti-MBTI hype. Retrieved from Psychology Today: https://www.psychologytoday.com/us/blog/my-brothers-keeper/202002/in-defense-the-myers-briggs#:~:text=The%20next%20time%20someone%20tells,is%20not%20based%20on%20research.

[24] MacCarthy, L. (2023). Why Your Myers-Briggs Personality Type Is Meaningless. Retrieved from PsyCom: https://www.psycom.net/myers-briggs-personality-type

[25] Pasha, T., & Stokes, P. (2018, March 20). Reflecting on the Germanwings Disaster: A Systematic Review of Depression and Suicide in Commercial Airline Pilots. Retrieved from Frontiers: https://www.frontiersin.org/articles/10.3389/fpsyt.2018.00086/full

[26] Peterson R., Peterson D., Abrams J., Stricker G., Ducheny K.(2015). Training in Clinical Psychology in the United States: Practitioner Model. ScienceDirect. Retrieved October 4, 2022, from https://www.sciencedirect.com/science/article/pii/B9780080970868210866

[27] Simkus, J. (2022). Myers & Briggs' 16 Personality Types. Date retrieved: 2/18/2023 from: https://www.simplypsychology.org/the-myers-briggs-type- indicator.html

[28] Tuliao, A. P. (2014, May 13). Mental health help seeking among Filipinos: a review of the literature. Retrieved from Asia Pacific Journal of Counselling and Psychotherapy: https://www.tandfonline.com/doi/full/10.1080/21507686.2014.913641?scroll=top&n eedAccess=true

[29] Wu, A., Donelly-Mclay, D., Weisskopf, M., McNeely, E. B., & Allen, J. (2016, December 154). Airplane pilot mental health and suicidal thoughts: a cross-sectional descriptive study via anonymous web-based survey. Retrieved from BioMedCentral: https://ehjournal.biomedcentral.com/articles/10.1186/s12940-016-0200-6#citeas