

Michael S. Lanzaro
Class of 2020
Community/Clinical Psychology
Undergraduate Major as a Predictor of
Generalized Anxiety Disorder
Dr. Debies- Carl, Department of Psychology and Sociology

Project Description

Anxiety and its role in college choice of major is poorly understood. Anxiety is a broad concept that can present in different forms. Generalized anxiety disorder (GAD) is defined as excessive worry which occurs for the majority of days for at least 6 months (American Psychiatric Association, 2013). Symptoms of GAD include: restlessness, irritability, difficulty concentrating, and sleep disturbances. These symptoms are linked to impairment in academic performance (Hartman et al., 2017). Anxiety rates are very prevalent in college campuses. Recent studies revealed collegiate anxiety rates are both high and rising (Eisenberg, 2010). However, the relationship between undergraduate major and development of anxiety are unknown. The course content of majors vary, and It has been speculated by social scientists that course content plays role in academic stress (Lefevre et. al., 1992). Students also, select majors based on pre-conceived ability and experience in their field of interest (England et. al., 2017). Self-selection can vary because of sociocultural variables and career prospects (Pisarik et al., 2017). Identifying if a relationship between anxiety and undergraduate major exists is crucial for comprehending the effects it may have on higher education.

By administering a survey to undergraduate students, basic demographic information was gathered including: Age, sex, class standing, and academic major. This survey also featured the Penn State Worry Questionnaire (PSWQ), a test measuring anxiety levels on a scale ranging

from 16-80. Results place students in three categories of anxiety: Low worry (16-39), moderate worry (40-59), and high worry (60-80) (Brown et al.,1990). This allowed undergraduate major and anxiety levels to be quantifiable. Data collection yielded a high participant population ($N=347$). Data were then inputted into Statistical Package for the Social Sciences (SPSS) and recoded into variables analyzable by statistical tests. Majors were then sorted among several groupings based on similarity of course content. Responses were excluded if answered inappropriately or if majors did not fit a category. Subsequently, A One Way Analysis of Variance test suggested the findings were significant. Gabriel's post hoc test was then conducted to determine which comparisons of major groupings were statistically significant.

The average PSWQ score places undergraduate students in the moderate worry category (Mean=57.70). More specifically, the several groupings of academic majors were as follows: Engineering, Mathematics, & Technology, Business, Law & Policy, Communication & Writing, Hard/Applied Sciences, Psychology, and Music & Fine Arts. According grading criteria, all major groupings except Music & Fine Arts fell within the moderate worry category (Brown et al., 1992). Music & Fine Arts majors were the only group placed under the high worry category. Post Hoc tests indicated a significant difference lies between Music & Fine Arts and Engineering, Mathematics, & Technology majors. Overall, this study was successful in its aim to discover a significant relationship between anxiety and undergraduate major. There were significant differences between Music & Fine Arts, and Engineering, Mathematics & Technology majors which suggest more questions than answers. Perhaps future studies could discover possible factors responsible for each major's respective anxiety levels.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing
- Brown, T. A., Antony, M. M., & Barlow, D. H. (1992). Psychometric properties of the Penn state worry questionnaire in a clinical anxiety disorders sample. *Behaviour Research and Therapy*, 30(1), 33-37. doi:10.1016/0005-7967(92)90093-v
- England, B. J., Brigati, J. R., & Schussler, E. E. (2017). Student anxiety in introductory biology classrooms: Perceptions about active learning and persistence in the major. *Plos One*, 12(8), 01st ser. doi:10.1371/journal.pone.0182506
- Hartman, S. D., Wasieleski, D. T., & Whatley, M. A. (2017). Just Breathe: The Effects of Emotional Dysregulation and Test Anxiety on GPA. *ERIC Institute of Educational Sciences*, 51(1), 1st ser., 1-9. Retrieved January 21, 2019.
- Lefevre, J., Kulak, A. G., & Heymans, S. L. (1992). Factors influencing the selection of university majors varying in mathematical content. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 24(3), 1st ser., 276-289. doi:10.1037/h007874
- Pisarik, C. T., Rowell, P. C., & Thompson, L. K. (2017). A Phenomenological Study of Career Anxiety Among College Students. *The Career Development Quarterly*, 65(4), 339-352. doi:10.1002/cdq.12112