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Navigating Higher Education: Stress and Control Among First-Generation

Undergraduates

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Abstract

First-generation undergraduates have a more challenging time succeeding in higher education than non-first-generation undergraduates due to a lack of cultural capital and their familial background. Previous research has found that financial and academic are significant stressors for undergraduates. First-generation undergraduates displayed higher levels of stress and an internal locus of control. To further inform how higher education institutions can develop support systems and resources for first-generation students, this study examines how an individual's trait anxiety and generational status may influence their locus of control when faced with academic or financial pressures. In this study, 131 undergraduates were assigned to a vignette depicting a financial or academic scenario regardless of their generational status, followed by a trait anxiety inventory and locus of control questionnaire. Although previous research suggests that first-generation undergraduates were more likely to exemplify an internal locus of control, our findings reveal no significant difference between first-generation and non-first-generation undergraduates' locus of control, regardless of college pressure type. Also, participants' trait anxiety did significantly affect their locus of control. However, it did not reflect substantially an interaction effect, indicating the relationship between college pressure type and locus of control varies based on their trait anxiety. Instead, this suggests that higher education institutions should prioritize mental health resources for first-generation undergraduates. Future research must examine these effects to accommodate better and foster success for first-generation higher-education undergraduates.

Navigating Higher Education: Stress and Control Among First-Generation Undergraduates

College symbolizes the start of a new path filled with excitement, bewilderment, and fear of the unknown. Higher education not only has the potential to transform a person's life but can become a source of pride for the entire family. Many well-established families have the tools and experience to succeed, paving the way for future generations to navigate academic, social, or occupational transitions that non-first-generation undergraduates often experience. Their familial support allows their descendants to retain the best opportunity to succeed in college and achieve their goals. On the other hand, many families immigrate to the United States to pursue opportunities and advocate the belief that anyone who is determined enough can achieve anything in life. However, this presents a unique challenge for first-generation undergraduates, the first in their families to attend a higher education institution.

This study investigates the potential impacts of financial and academic pressures on first-generation undergraduates' locus of control and how they may differ from non-first-generation undergraduates', given their trait anxiety. Based on this study, it would benefit higher education institutions to address solutions to alleviate these pressures and effectively serve first-generation undergraduates. Further, higher education institutions will be able to better understand and tailor resources for the first-generation population.

Theory

As we examine the potential impact of college pressures on first-generation undergraduates, we must consider a few theoretical frameworks to provide context for how these

pressures interact with individuals' backgrounds, including the Social Cognitive Career Theory, the Cultural Capital Theory, and the Locus of Control Theory.

The Social Cognitive Career Theory posits that there is an interaction of three interrelated components: personal factors, such as self-efficacy; contextual factors, like social support or cultural norms; and environmental factors, such as job availability, that influence an individual's career aspirations (Brown et al., 2011). This theory highlights the importance of considering multiple factors influencing an undergraduate's career aspirations and gaining a more nuanced understanding of how specific pressures may also impact their career trajectory. For example, a first-generation undergraduate may have strong self-efficacy. However, if they come from a low-income background, they may not prioritize their personal goals in exchange for supporting their family.

The Cultural Capital Theory suggests that an individual's social and cultural background can impact their life aspirations and motivations. Non-first-generation individuals may have greater access to resources that can lead to advantages in academic achievement, career success, and social mobility. In contrast, first-generation individuals face challenges pursuing higher education due to their cultural and social backgrounds. Additionally, cultural capital would be considered part of the contextual factors proposed by the SCCT.

The Locus of Control Theory (LCST) refers to an individual's belief in controlling events or outcomes, influencing how an individual may experience or cope with stress (Rotter, 1966). This study suggests that individuals would be better equipped to cope with financial and academic pressures with an internal locus of control. On the other hand, individuals with an external locus of control may be more vulnerable to the negative impact of academic or financial pressures. However, an individual's locus of control may differ based on the specific pressure, as

financial situations would be associated with an external locus of control. In contrast, academic situations would be associated with an internal locus of control. Overall, these theoretical frameworks contribute to our understanding of the complex interactions between social, cultural, and environmental factors on how they may influence an individual's perception of control in stressful situations while considering their cultural capital.

Literature Review

As an individual's generational status is the main focus of this study, it is essential to note the context that may influence their principles. Individualism and collectivism are familiar terms to classify cultural patterns that influence an individual's beliefs, behaviors, and attitudes (Hui & Triandis, 1986). Hui and Triandis (1986) describe individualism with personal rights, autonomy, and self-fulfillment. In contrast, collectivism illustrates how individual aims are sacrificed in favor of collective objectives, focusing on harmony, interdependence, and concern for others. In addition, collectivists lean towards interdependence with in-group members because of a unanimous assumption to strengthen the integrity of the entire group. First-generation undergraduates have a stronger inclination toward a family-oriented mindset due to an overwhelming pressure to repay their families for their sacrifices by completing their higher education and acquiring an affluent career (Vasquez-Salgado et al., 2015). Therefore, first-generation students are more likely to be collectivistic, while non-first-generation students are more likely to be individualistic.

First-generation undergraduates tend to start their higher education at a community college rather than begin at a four-year university; however, the success rate continues to decrease if they were to begin at a community college. They are less likely to continue due to

unique challenges like lack of money, the complicated transfer process, juggling work and school, or needing help to complete the requirements of a four-year university (Bui, 2002).

Therefore, it is essential to guarantee the success of first-generation students who begin their higher education at a four-year university, as there is a greater risk. Additionally, first-generation college students often feel less prepared for college, express concerns about financial aid, and feel the need to exert more effort in their studies than non-first-generation students (Bui, 2002). Thus, their cultural capital becomes relevant in this study because first-generation undergraduates, often from ethnic minority backgrounds and lower socioeconomic status, naturally have fewer resources to succeed in higher education and face distinctive challenges throughout their college careers (Bourdieu, 1986).

Financial and academic pressures have been identified as significant stressors while pursuing higher education, contributing to higher stress levels (Bui, 2002; Garriot & Nisle, 2018). These two types of pressures showcase how first-generation students would have higher stress levels than others because they must achieve an affluent career through the success of their academics. However, based on their low socioeconomic status, there is an overwhelming pressure of financial issues. Prior studies have also demonstrated how generational status and financial stress can influence one's academic self-efficacy as a component of the SCCT (White & Perrone-McGovern, 2017; Brown et al., 2011). Consequently, this study utilizes the SCCT and states that first-generation undergraduates lack college graduate role models to guide their higher education journey (Brown et al., 2011). This lack of guidance increases the likelihood of encountering financial or academic difficulties, leading to higher stress levels. Moreover, previous studies suggest that first-generation undergraduates with an external locus of control experience higher stress levels due to their increased vulnerability (Helmbrecht & Ayars, 2021).

This study explores how their trait anxiety levels may further influence the interaction between these pressures, generational status, and locus of control.

Rationale

Although there is extensive literature regarding first-generation undergraduates and college pressures on their stress levels, there remains little research that examines how their locus of control may impact their stress levels or if there is a prevalent difference between generational status. As previously mentioned, first-generation students were most likely to be an ethnic minority and from lower socioeconomic status. Further, based on the SCCT and CCT, first-generation undergraduates often face unique challenges in succeeding at a four-year university due to their limited knowledge and lack of cultural capital, contributing to higher levels of stress (Brown et al., 2011; Bourdieu, 1986; Garriot & Nisle, 2018). Stress and anxiety have an intertwined behavioral and neural foundation, as stress is in response to an external cause. In contrast, anxiety is an individual's reaction and internalization of stress (Núria Daviu et al., 2019). Their relationship provides reliable support to assess an individual's stress levels through their trait anxiety, noting their trait anxiety about their stress levels.

In addition, financial and academic pressures are two of the most significant stressors for all undergraduates, contributing to higher stress levels (Bui, 2002). Inadvertently, the individuals who experience the highest stress levels are first-generation students with an internal locus of control. Based on the LCST, we can infer that first-generation undergraduates with an internal locus of control will be more resilient to financial or academic pressures. In contrast, those with an external locus of control will be more vulnerable. Specifically, first-generation students with an internal locus of control may exhibit higher stress levels regardless of the college pressure

type. Even though higher education institutions have tried to implement resources geared toward first-generation undergraduates, there is a barrier to guaranteeing their success. Therefore, higher education institutions can identify the challenges faced by first-generation students, inform the development of tailored resources and practical strategies to reduce their stress levels, and ultimately promote their success in higher education.

In this study, we will examine whether an individual's locus of control changes depending on the type of college pressure, if there is a significant difference between first-generation and non-first-generation undergraduates, and if an individual's trait anxiety will have an additional impact on their locus of control. Although prior research has connected generational status, college pressure, and stress levels, we believe an individual's locus of control has a strong influence. All of these factors interact to reflect a significant effect on their locus of control. This study aims to contribute to our understanding of the factors influencing undergraduate success by examining the impact of academic and financial pressures on their locus of control, focusing on the moderating effect of their generational status and trait anxiety levels.

Hypothesis

- 1) We hypothesize there will be a significant main effect for college pressure type, such that there will be a difference in participants' locus of control for those who receive the academic vignette compared to those who received the financial aid vignette.
- 2) We hypothesize there will be a significant main effect for generational status, such that there will be a difference in participants' locus of control regardless of the college pressure type compared to non-first-generation students.

- 3) We hypothesize there will be a significant main effect for trait anxiety, such that there will be a difference for participants with high trait anxiety who will report a higher external locus of control.
- 4) We hypothesize there will be a significant interaction effect between participants' generational status and college pressure type, such that participants who receive the financial aid vignette will report an internal locus of control and be first-generation.
- 5) We hypothesize there will be a significant interaction effect between participants' trait anxiety and college pressure type, such that participants who receive the academic vignette will have higher trait anxiety and report a significantly higher external locus of control.

Methods

Design

This study employs a 2 (College Pressure Type: Academic vs. Financial) x 2 (Generational Status: First-generation vs. Non-first-generation) between-subjects design moderated by the participants' levels of trait anxiety. The dependent variable in this study was the participants' locus of control (Internal vs. External). The independent variable (college pressure type) was operationally defined through our chosen vignettes. In contrast, when presented with specific pressures, the moderators (trait anxiety and generational status) and the dependent variable (locus of control) were operationally defined through self-reports.

Participants

There were a total of $N = 131$ participants, but only 113 were eligible for analysis. Most participants ($n = 90$, 68.7%) did not identify as first-generation, while the remaining participants identified as first-generation undergraduates ($n = 41$; 31.3%). Thirty-nine participants identified as male ($n = 29.77\%$), 90 identified as female ($n = 68.70\%$), 1 participant identified as non-binary ($n = 0.76\%$), and 1 participant identified as a transgender man ($n = 0.76\%$). Participants ranged from 18 to 34 years old ($M = 21.56$ years; $SD = 2.31$ years).

Participants were recruited through an upper-division psychology course at the University of California, Santa Barbara, specifically in Psychology 120L: *Laboratory in Advanced Research Methods*. They were informed that participation in the study would fulfill their course requirement. In addition to class recruitment, the researchers expanded recruitment beyond the course by utilizing various online contact methods, such as social networking sites and private text messaging. The study advertised an opportunity for students to contribute to existing psychological research and gain valuable experience.

Individuals had to be enrolled at a university and at least 18 years old to be eligible to participate. All studies conducted for this research project underwent review and received approval from the Educational Institutional Review Board (IRB) at the University of California, Santa Barbara, and Dr. Woods, the course instructor.

Measures

All specific study instructions and measures will be presented via Qualtrics, an online survey platform (on their computer or phone devices). The data collection will be conducted

online at the location of participants' personal choice and in consideration of their accessibility to the Internet.

College Pressure Vignette

In this study, the independent variable manipulation was a college pressure type: academic or financial. The financial pressure vignette places the reader in a situation where their financial aid is late, and they would have to ask their parents for assistance to avoid being dropped from their classes. The reader's parents eventually send the money to pay for the tuition fees. However, the financial aid arrives later, leaving them with much more money than their parents were unaware of (Fredricks et al., 2022) (see Appendix). The academic pressure vignette places the reader in a situation where they are required to write a research paper, but the professor is unsatisfied with the work they provide. The reader contemplates whether or not to turn in their preliminary work and receive an undesired grade (Wielkiewicz & Wonderlich, 2006) (see Appendix).

State-Trait Anxiety Inventory

Spielberger and colleagues (1983) created Spielberger's State-Trait Anxiety Inventory (STAI), a 40-item scale to measure an individual's state and trait anxiety. Zsido and colleagues (2020) developed a shortened version of the inventory for trait anxiety, known as STAIT-5, to provide a more concise measure. The scale consists of 5 items rated on a 4-point Likert scale from 1 (not at all) to 4 (very much so). Sample items include: "I feel that difficulties are piling up so that I cannot overcome them," "I worry too much over something that does not matter," and "I take disappointments so keenly that I cannot put them out of my mind." Higher scores indicate higher levels of trait anxiety, and lower scores indicate lower levels of trait anxiety. The STAIT-5

has demonstrated excellent reliability with a Cronbach's alpha coefficient of 0.86 for the shorter version (Zsido et al., 2020). Anxiety and stress are inadvertently related, so this scale provides a valid and reliable measure to assess a participant's stress levels.

Internal-External Scale

The Internal-External Scale (I-E Scale), developed by J. B. Rotter (1966), is a 29-item scale that measures an individual's internal or external locus of control. For each item, the participant must select the statement they agree with the most from an 'a' or 'b' option. Sample items from the scale include contrasting statements such as "Children get into trouble because their parents punish them too much" and "The trouble with most children nowadays is that their parents are too easy with them ." Higher scores indicate an external locus of control, while lower scores indicate an internal locus of control. The I-E scale reported good discriminant validity and a split-half reliability between 0.65 and 0.79 (Rotter, 1966).

Generational Status

Participants were asked within the demographics portion the following question: "Are you a First-Generation Student?". They were provided the following definition: "First-generation is defined as the first in your family to go to college in the United States." Participants had two possible answers to this question: yes or no.

Procedure

Once recruited, participants received a link to the study provided through an online survey platform. Participants were given a consent form explaining the study's purpose, the procedures involved, and the voluntary nature of participation. The form also provided the

contact information of the researchers and the class instructor for any questions or concerns. Participants received a brief explanation of what to expect and were instructed not to input identifying information to maintain anonymity. They were asked for consent before starting the survey and were assured that their participation would be anonymous. They were also informed that they could withdraw their agreement without incurring fees. Then, basic demographic information, such as age, gender, and generational status, was collected from the participants.

Next, regardless of generational status, each participant was randomly assigned to a financial or academic prompt. Then, participants were instructed to read their assigned vignette and report their trait anxiety using the STAIT-5 scale, referring to the vignette as if they were placed in that specific situation. Afterward, they were asked to complete the I-E scale to determine their locus of control based on their assigned situational pressure, whether external or internal.

After completing the survey, participants were debriefed about the study's specific aims. They were informed that the study aimed to investigate whether first-generation undergraduates have a specific locus of control based on academic or financial pressures moderated by their level of trait anxiety. Participants were informed that they were randomly assigned to a vignette focused on either a financial or academic issue, regardless of their generational status. They were also informed that they filled out the STAIT-5 and I-E scale to record how the specific situation affected their locus of control. The debriefing form included information about the researchers, the data's confidentiality, and the results' intended use purposes. Participants could contact the researchers or the class instructor if they had questions or wanted to know the study results.

Data was collected through an online survey platform, Qualtrics, from May 8 to May 15, 2023. The participant's trait anxiety and locus of control were collected, along with basic demographic information, including age, gender, and generational status. All responses were anonymous and deleted after data analysis.

Results

First, Pearson correlations were calculated to examine the relationship between generational status, locus of control, and trait anxiety for financial and academic conditions with IBM SPSS Statistics (Version 29). Results showed that participants' trait anxiety in the academic condition was positively associated with locus of control, such that those with higher levels of trait anxiety will exhibit an external locus of control ($r(59) = .26, p = .045$) (Table 1).

Table 1

Descriptive Statistics and Correlations for Study Variables

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4
1. Generational Status ^a	131	0.69	0.47	—			
2. Trait Anxiety in Financial Condition	65	11.69	3.21	-0.04	—		
3. Trait Anxiety in Academic Condition	66	12.85	3.10	-0.02	— ^b	—	
4. Locus of Control	117	13.62	3.64	-0.07	0.00	0.33**	—

^a 0 = first generation and 1 = non-first generation

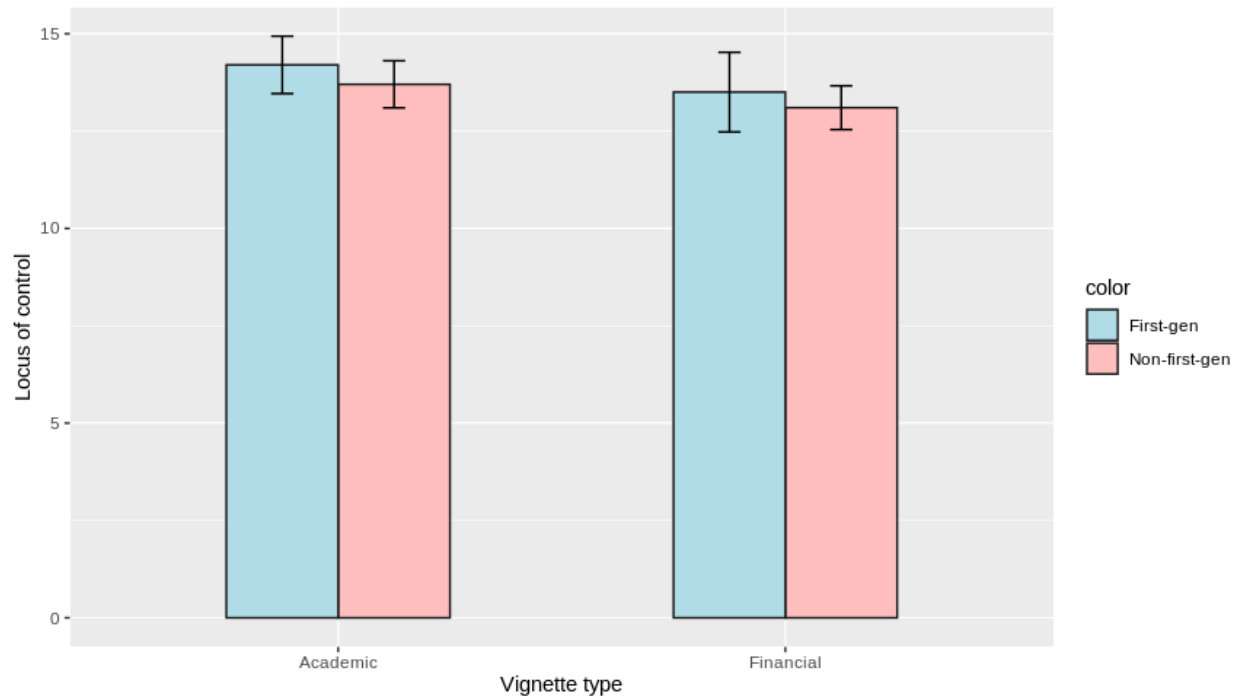
^b Anxiety scores between conditions are mutually exclusive, so a correlation cannot be computed.

* $p < .05$.

** $p < .01$.

College Pressure x Generational Status

Next, the researchers wanted to assess whether our manipulation of the college pressure type affected their locus of control based on their generational status. A 2 x 2 ANOVA was conducted to test whether the college pressure type (academic vs. financial) and generational status (first-generation vs. non-first-generation) impacted their locus of control (internal vs. external). The main effect of college pressure type on their locus of control was insignificant, $F(1,113) = 0.97$, $p = 0.326$, $\eta^2 = 0.009$ such that their locus of control means were similar for those with an academic condition ($M_{\text{academic}} = 14.05$, 95% CI [13.1, 15.0]) as compared to those with a financial condition ($M_{\text{financial}} = 13.3$, 95% CI [12.2, 14.5]). The results suggest that individuals do not report a specific locus of control for financial or academic conditions, reflecting an external locus of control for both conditions. The main effect of generational status on their locus of control was not significant, $F(1,113) = 0.27$, $p = 0.604$, $\eta^2 = 0.002$, such that locus of control means were similar for those who were first-generation ($M_{\text{first-gen}} = 13.9$, 95% CI [12.6, 15.1]) than those who were non-first-generation ($M_{\text{non-first-gen}} = 13.5$, 95% CI [12.7, 14.3]). The results suggest that individuals do not report a specific locus of control, whether they were first-generation or not, reflecting an external locus of control for both variables. Finally, there was not a significant interaction between college pressure type and generational status on their locus of control, $F(1,113) = 0.01$, $p = 0.917$, $\eta^2 < 0.001$ (Figure 1), such that an individual's locus of control was not affected by the type of college stressor in the study.

Figure 1*Impacts of College Pressure Type and Generational Status on Locus of Control*

Note. Higher levels of locus of control indicate an external locus of control, while lower levels indicate an internal locus of control. Visualized in R Studio.

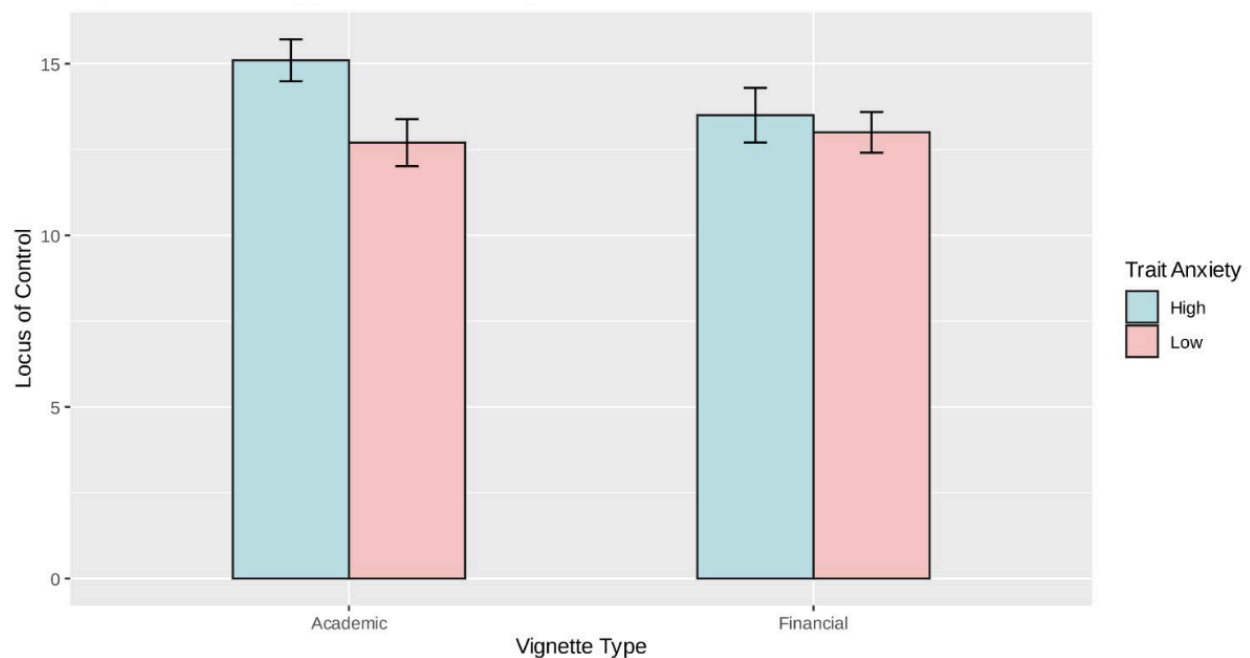
College Pressure x Trait Anxiety

Lastly, the researchers wanted to assess whether our manipulation of the college pressure type affected their locus of control based on their trait anxiety. A 2 x 2 ANOVA was conducted to test whether the college pressure type (academic vs. financial) and trait anxiety (high vs. low) impacted their locus of control (internal vs. external). The main effect of college pressure type on their locus of control was not significant, $F(1,113) = 0.87$, $p = 0.352$, $\eta^2 = 0.008$, such that their locus of control means were similar for those with an academic condition ($M_{academic} = 13.9$, 95% CI [13.0, 14.8]) compared to those with a financial condition ($M_{financial} = 13.2$, 95% CI [12.3, 14.2]). The results suggest that individuals do not report a specific locus of control for financial or academic conditions, reflecting an external locus of control for both conditions. The

main effect of trait anxiety on their locus of control was significant, $F(1,113) = 4.46$, $p = 0.037$, $\eta^2 = 0.038$, such that individual means were significantly different for those with an academic condition ($M_{\text{academic}} = 12.9$, 95% CI [12.0, 13.7]) and financial condition ($M_{\text{financial}} = 14.3$, 95% CI [13.3, 15.3]). The results suggest that individuals who received the academic condition will exhibit higher levels of an external locus of control than those who received the financial condition. Finally, there was an interaction between college pressure type and trait anxiety on their locus of control. However, it was deemed insignificant, $F(1,113) = 1.88$, $p = 0.173$, $\eta^2 = 0.01$ (Figure 2), suggesting that an individual's locus of control varies on the college pressure type based on trait anxiety and potentially caused by the significant main effect of trait anxiety.

Figure 2

Impacts of College Pressure Type and Trait Anxiety on Locus of Control



Note. Higher levels of locus of control indicate an external locus of control, while lower levels indicate an internal locus of control. Trait anxiety is synonymous with levels of stress. Visualized in R Studio.

Discussion

In this study, we hypothesized: 1) there would be a main effect for college pressure type, 2) there would be a main effect for generational status, 3) there would be a main effect for trait anxiety, 4) there would be a significant interaction effect between participant's generational status and college pressure type, and 5) there would be a significant interaction effect between participant's trait anxiety and college pressure type.

This study did not support our first or second hypotheses that certain college pressures were related to a specific locus of control or that a participant's generational status was a significant predictor. More specifically, there were no differences between generational status and college pressure type in their locus of control, which suggests that the college pressure type (academic or financial) does not lead to a specific locus of control for first-generation undergraduates (compared to non-first-generation undergraduates who have more cultural capital) as they both exhibited an external locus of control. On the other hand, this study did support our third hypothesis that higher trait anxiety levels result in higher levels of external locus of control. In other words, individuals who face academic pressures will reflect an external locus of control due to their high stress levels.

This study did not support our fourth hypothesis as there was no interaction between a participant's generational status and college pressure type. In other words, there is no additive interaction between college pressure type and generational status as both first-generation and non-first-generation reported an external locus of control; however, both academic and financial pressures had similar effects on locus of control beliefs, while generational status did not have a significant impact. Also, this study did not support our fifth hypothesis as there was no significant interaction between participant trait anxiety and college pressure type; however, there

was still a slight interaction. The results suggest that an individual's stress level leans towards a specific locus of control for academic pressures (compared to financial pressures), and their locus of control may be predetermined by how they may handle situations as it is rooted in their personality.

Although our study did not reveal any significant findings to support the relationship between college pressures and generational status, it is crucial to remember that prior research has shown the relationship between first-generation undergraduates' stress levels and locus of control based on college pressure type. As mentioned, first-generation undergraduates have a more difficult time and a lower success rate of completing their higher education at a four-year university than non-first-generation undergraduates (Bui, 2002; Garriott & Nisle, 2018). Additionally, first-generation students harbor more stress about achieving a successful career to support their families later due to their collectivistic ideology (Hui & Triandis, 1986; Vasquez-Salgado et al., 2015).

In combination with the SCCT and CCT, an individual's career aspirations are formed through several factors and may be influenced toward a specific career path based on the available knowledge from their family; however, since first-generation undergraduates are the first to go to college, they lack the knowledge to guarantee their success in higher education (Bourdieu, 1986; Brown et al., 2011). Bourdieu (1986) linked the concept that first-generation undergraduates, often from ethnic minority backgrounds and lower socioeconomic status, naturally have fewer resources to succeed in higher education and face unique challenges throughout their education journey. While considering the SCCT and CCT, the results indicate taking psychological factors into account, such as stress levels, because they can heavily affect effective career decision-making and hinder their ability to traverse higher education effectively.

By addressing stress-inducing factors, first-generation undergraduates can understand how to maximize their cultural capital. For example, generational status may influence the transmission of cultural capital across generations. At the same time, academic or financial pressures can impact access to educational resources that contribute to the utilization of cultural capital. Therefore, understanding the interplay between these factors and their relationship with stress-inducing factors can enhance our understanding of how cultural capital is acquired, mobilized, and leveraged within educational and social contexts.

Regarding their generational status, White & Perrone-McGovern (2017) reveal that financial hardship and generational standing might impact someone's academic self-efficacy. Combined with Helmbrecht & Ayars's (2021) findings that first-generation undergraduates with an external locus of control tend to experience higher stress levels, it led us to anticipate that first-generation undergraduates will report higher levels of stress and an external locus of control for financial pressure. As well as non-first-generation college students would exhibit a contrasting effect with higher stress levels for academic college pressure. These findings and the LCST led to our hypothesis that we would discover a similar pattern for participants' locus of control when faced with financial or academic pressure such that those with an external locus of control are prone to feelings of vulnerability for financial hardships as they are unable to control the amount of money they possess directly. In contrast, academic pressures should exhibit an internal locus of control because undergraduates can control their achievements as it is directly related to their self-efficacy compared to financial hardships; however, our results revealed the opposite effect. Although the LCST suggests a contrasting effect, these results exemplify the stability of an individual's locus of control and how they are independent of the type of pressure or generational status but potentially influenced by stress levels.

Lastly, this implies no need to separate academic or financial resources by generational status as they would have the same effect on first-generation and non-first-generation undergraduates shown through the absence of an apparent difference in the results. Additionally, since there was a difference in stress levels, this leads us to presume that higher education institutions should prioritize providing comprehensible mental health resources instead for first-generation undergraduates, including counseling services, collaborating with mental health professionals, workshops on stress management and anxiety reduction, and promoting awareness of available resources. Higher education institutions would benefit by adopting a holistic approach through the multi-faceted nature of undergraduates' well-being by developing coping mechanisms and resilience to help students manage their stress levels effectively. Institutions may need to reassess their curriculum and assessment measures to reduce anxiety-inducing factors such as excessive academic workload and high-stakes examinations and foster a learning environment that emphasizes a growth mindset. Providing more mental health resources geared towards first-generation undergraduates will decrease their stress levels and further guarantee their success in higher education.

Nevertheless, prior research provides evidence that first-generation undergraduates experience higher stress levels due to their locus of control and the type of college pressure, revealing that this study had various limitations that did not allow us to identify significant effects for generational status.

Limitations

Based on prior research, a relationship exists between first-generation undergraduates' success in a four-year university and the type of college pressure they face, shown through their stress levels and locus of control. Therefore, this study does not disprove past research or

theories but reveals certain limitations that did not allow us to produce significant results. For instance, this study recruited participants through a convenience sampling method and collected primarily undergraduates from the University of California, Santa Barbara, limiting the generalizability of our findings. The lack of diversity disallows proper representation of the first-generation population as it may differ for each university campus. Furthermore, the use of vignettes depicting a specific college pressure may not capture the real-life experiences associated with academic or financial pressures, may not apply to the general population, and may not elicit an authentic reaction. Additionally, the study relied on self-report measures, subject to response biases, and may not capture the full complexity of students' experiences. Including objective measures and qualitative approaches could provide a more comprehensive understanding of the factors influencing stress and locus of control among first-generation students.

Future Research

Our study wanted to emphasize how specific college pressures may affect first-generation undergraduates more than non-first-generation undergraduates based on their locus of control. It is crucial to note that college pressure type and an individual's generational status may not be primary factors in influencing their locus of control; however, findings related to the purpose of this study can inform higher education institutions to develop targeted interventions and support systems for first-generation undergraduates. Researchers may want to examine factors such as familial guilt, socioeconomic status, or ethnicity as they pertain to a student's stress level based on college pressure. Future research should focus on a more extensive and diverse sample to enable researchers to represent the first-generation population better and provide better evidence-based information for developing resources. Further studies may emphasize their state

anxiety over trait anxiety to obtain more accurate results on the relationship between stress levels, generational status, and the type of college pressure, ascertaining whether a particular college pressure affects a person's current stress rather than basing it on their stress as an attribute.

Conclusion

As the population of first-generation undergraduates increases in four-year universities, there is a newfound concern to accommodate first-generation undergraduates due to their lack of cultural capital and provide the necessary resources to ensure their completion of higher education. This study found no difference between generational status and college pressure; however, there was a significant difference in their stress levels, indicating that higher education institutions should focus on strategies to mitigate stress levels for first-generation students, in particular, instead of refining academic or financial aid. As universities shift their focus on first-generation undergraduates, future research must examine other factors that may contribute to a student's stress and affect their sense of control to provide the proper support they need adequately.

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Appendix

College Pressure Vignettes

This appendix contained the presented vignettes depicting financial or academic pressure and was randomly assigned to each participant. Participants were asked to fill out the STAIT-5 scale right after reading their assigned vignette as if they were placed in that specific scenario.

Financial Vignette

You are beginning a new semester at your college/university. Your financial aid has not arrived on time and if you do not pay your tuition, you will have to drop out. Although you do not live at home, you call your parents and ask to borrow some money. They are pretty broke right now, but they reluctantly agree and send you the money needed, and you pay your bill. The financial aid arrives, and you now have more money than expected. Your parents did not know that you would be getting financial aid.

Academic Vignette

For one of your classes, you are required to write a major research paper, which counts for half of your course grade. You have decided on a topic and have completed the research process. As you were researching your topic, you completed two information sheets regarding your topic and received approval on your topic idea from your professor. You have now completed your rough draft and have handed it in to get feedback from your professor. A few days later your professor asks to meet with you and believes the work that you have done is insufficient, and to earn your desired grade, you must choose a new topic. You are still slightly uncertain as to what your professor is asking for and begin feeling pressure from the time constraints that you are now facing. You do not want to compromise your hard work, but if you do not completely rework the paper, you will not receive the grade you desire.

Audrey Gaceta

Reflective Essay

As an aspiring cultural psychologist and professor, I wanted to center my research on first-generation undergraduate students as their struggles have been highlighted and have become more relevant in recent years. For my PSY 120L in *Laboratory in Advanced Research Methods*, I sought to understand how the locus of control and first-generation status may affect their well-being given certain common college pressures such as academic or financial struggles. First-generation students experience different issues due to their unique backgrounds, usually of an underrepresented community and lack of cultural capital, I wanted to contribute to furthering the understanding and provide resources for marginalized groups. Through this study, I determined that first-generation and non-first-generation undergraduates did not differ in locus of control, but did display a significant difference in stress. Based on these results, we can determine that higher education institutions should not focus on providing separate resources in academics or financial issues for first-generation undergraduates, but should prioritize providing better mental health resources for these students, which will promote their well-being and contribute to their success in the long-term.

Throughout this project, I sought advice and guidance from the instructor of the course, Professor Woods, who was an invaluable resource in searching for articles, structuring our study design, and evaluating our data. Professor Woods shared PsycINFO as a resource for our literature reviews and noted it was a free resource granted by the library.

In past psychology courses, we were trained to use resources provided by the library through PsycINFO, which grants access to millions of research articles from any field. I utilized advanced search options to narrow my pursuit for the perfect articles that would provide the exact information and evidence to support my rationale. This strategy made my literature search more efficient by searching keywords, year of publication, record type, methodology, and population. Additionally, some articles were still blocked and needed authentication from our institution, so the library forwarded any articles I needed through email if I struggled with paywalls. This website also provides citations, abstracts, and links to full PDFs of the articles, organizing my research paper with ease and efficiency. This provided a free alternative for my literature search and allowed me to further my research without the stress of financial burdens as I looked through hundreds of articles.

Another beneficial aspect of the library was the DREAM Lab, which provided access to advanced computational methods such as R Studio and SPSS Statistics. The library not only provides access to research articles but also offers tools and software that can assist in conducting advanced data and statistical analysis, which was essential for my study's results, enabling me to analyze and interpret data effectively. Furthermore, the public computers are equipped with an extensive library of computer software, including Microsoft Office (Word, PowerPoint, Excel etc.). This resource was helpful to visualize the poster needed for our colloquium where I presented the study for various professors.

As the library provided access to PsycINFO, I was guaranteed any article I found through this website would be credible and reliable. In choosing sources for my research on first-generation undergraduate students, I focused on several key criteria to ensure their authority, credibility, scope, and coverage. I prioritized sources that directly related to my topic of

first-generation students' well-being, locus of control, and stress in the context of college pressures. I sought sources from reputable journals and publications in the field of psychology, ensuring that the authors were experts in their respective areas. I looked for sources that provided a comprehensive overview of the topic, including studies that covered a wide range of first-generation students' experiences and backgrounds. I paid attention to the methodology used in each study, favoring those with robust and well-designed research methods that could provide reliable and valid results. I considered the publication year of the sources that were within the past ten years to ensure that they were recent enough to reflect the current state of research on the topic.

In evaluating the sources I used, I carefully reviewed each article's abstract, methodology, results, and discussion sections to assess their relevance and quality. I also looked at the authors' affiliations and credentials to gauge their authority on the subject. Additionally, I considered the journal's impact factor and reputation within the field of psychology to ensure that the sources were credible. Overall, this process helped me select sources that provided the necessary evidence and support for my research rationale, contributing to a well-rounded and informed study.

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