The Role of the Imposter Phenomenon on First-Generation College Students

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Abstract

This study investigated the relation between the imposter phenomenon and first-generation college students, analyzed key concepts to understand the phenomenon as they related to the overall college experience, and examined the difference in the behaviors of first-generation college students compared to non-first-generation college students. The imposter phenomenon is often referred to an individual having doubts in their achievement, and fearing that one day they will be exposed for being intellectually inadequate. Previous research has found a negative correlation between the imposter phenomenon and marginalized people, individuals experiencing impostorism and low-self-perception, and high scores on imposter measures and high scores on neuroticism measures. The current study focused on concepts related to the phenomenon which included self-perception, self-efficacy, and the big five personality traits, and they were analyzed against academic achievement, college life satisfaction, and social connectedness. One hundred and thirty-seven participants reported whether or not they were first-generation college students and responded to a set of questionnaires that analyzed the concepts mentioned above. Imposter phenomenon scores did not differ by generation status, but first-generation students reported lower satisfaction with life than non-first-generation students. Additionally, a correlational matrix showed significant relations between the imposter phenomenon and neuroticism. The result of this study suggests that there are a variety of factors that influence the college experience of first-generation college students.

Keywords: Imposter phenomenon, First-generation, Self-perception, Self-efficacy, Big five personality traits

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Impostorism, described as feelings of fraud and fear in one's success, has been studied in many contexts and samples including studies of women, African Americans, academic settings, and work environments (Clance & Imes, 1978; Austin et al., 2009; Pulliam & Gonzalez, 2021; Hutchins et al., 2018). Yet, research lacks the in-depth analysis of the concept also referred to as the Imposter Phenomenon (IP), in first-generation college students. Additionally, research is lacking on the examination of other constructs that might be related to the IP, specifically self-perception, self-efficacy, and personality traits (e.g., conscientiousness, openness, agreeableness, neuroticism, and extraversion). This paper expands on prior research by focusing on these facets as they relate to the overall college experience of first-generation college students. It provides added information about the struggles and interconnected issues faced by first-generation college students and offers more information that can lead to prevention strategies and programs that can assist students with self-handicapping behaviors. The purpose of the study described in this paper was to examine the effects of the imposter phenomenon by focusing on three variables relevant to the concept and their relationship to the overall college experience of first-generation students.

First-Generation College Students

There are many challenges associated with beginning college that include: paying for college, succeeding academically, joining school teams and sports, finding a sense of belonging, and overcoming feelings of disconnection (Cooper et al., 2018). Half of the participants in Cooper and colleagues' study revealed a financial burden with tuition and living experiences, and some participants stated struggling to pay for food and other necessities for school. First-generation college students also expressed encountering discrimination from instructors and peers who viewed them to be inadequate, and this was worsened in non-white students (p. 93).

Additionally, first generation students mentioned having little financial and emotional support from family members (Cooper et al., 2018). Aside from the disconnection from those in academic spaces, first-generation college students may also experience divided internal feelings due to familial issues. Covarrubias and Fryberg (2015) found that ethnically diverse first-generation college students endured more feelings of guilt related to surpassing their family members compared to white participants who were not first-generation students. Covarrubias and Fryberg results indicated that guilt may be due to leaving family members behind in adverse conditions. Many of the experiences of students who have entered college as the first in their family can be tied back to their parents' or guardians' completed educational level.

The difficulty with being in college as a first-generation student starts before a student even enters college. They are typically less academically prepared than non-first-generation college students regarding scores on standardized test and grade point averages (Atherton, 2014). Along with being less academically prepared for college, first-generation students have less access to academic resources and support, knowledge on the importance of choosing a college, and the type of choices to make during college to be more successful (Ernest et al., 2014). This study discovered that the students whose parents had a postsecondary degree understood the role of education on development and socioeconomic growth (p. 252). Ernest and colleagues also revealed that first-generation college students worked more, completed less academic credit hours, and were more likely to commute to college, which could impact their overall involvement during school (p. 275). Additionally, first-generation students often encounter otherness, alienation, and challenges associated with finding peers that have similar backgrounds to them and will accept them (Cooper et al., 2018; Ernest et al., 2014). Behaviors related to isolation and less family and social support faced by first-generation students can lead to less

success in college adjustment (Grant-Vallone et al., 2004). The inability to master and adjust to an environment, specifically an academic environment can lead a student to experience feelings of inadequacy, less confidence in their abilities, anxiety, and fraudulence (Peteet et al., 2015).

Imposter Phenomenon

Literature has already established a positive correlation between first-generation college students and confidence levels, anxiety, and fraudulent feelings (Martinez et al., 2009; Peteet et al., 2015; Pulliam & Gonzalez, 2021). These traits can also be attributed to the Imposter Phenomenon, which was first introduced by Clance and Imes (1978) and is described as internal feelings of fraud and doubt in one's skill, attributing one's success to external factors, and an overwhelming fear of being outed as an imposter (p. 241). Literature has also connected the IP to an academic setting regarding perfectionism and rigorous academic programs (Lee et al., 2021), mental health in university students (Kananifar et al., 2015), and college engagement, generation status, and impostorism predictors (Peteet et al., 2015). Specifically, Peteet and colleagues focused on the influence of first-generation status, well-being (i.e.., autonomy, environmental mastery, relations with others, self-acceptance), and racial/ethnic identity (i.e.., affirmation, belonging) on predicting the imposter phenomenon. They found that generation status positively correlated with the imposter phenomenon, but it did not predict the occurrence of the phenomenon. On the other hand, key components related to well-being and racial/ethnic identity (e.g., affirmation, belonging, environmental mastery) predicted the imposter phenomenon in high achieving minority students. Like Peteet and colleagues' study, the current study investigated the relation between generation status and the imposter phenomenon but focuses on other factors that can contribute to the imposter phenomenon. Previous research lacks the examination of the imposter phenomenon and the overall college experience, specifically a combination of academic

achievement, college life satisfaction, and social connectedness in first-generation college students.

As previously mentioned, the imposter phenomenon was divided into three facets: self-perception, self-efficacy, and personality traits and are evaluated against the overall college experience (academic achievement, college life satisfaction, and social connectedness). Self-perception and self-efficacy relate to self-identification in that they are a branch of how the individual is viewed by others and themselves in a social context. Specifically, self-perception relates to how an individual perceives themselves as well as any attribute that makes up the self, whereas self-efficacy refers to an individual view of their ability to achieve. In 2000, Leary and colleagues investigated the validity of impostorism, and the behaviors of imposters. They found that individuals with low self-perception were high in impostorism, confidence levels were affected by whether their behaviors would be publicized, and imposters tend to engage in self-protecting behaviors to avoid disapproval from others. Although this research lacks the examination of self-efficacy regarding the imposter phenomenon, it supports the notion that the imposter phenomenon is fueled by the perception and beliefs of the self. Literature has also established a positive correlation between personality traits and the imposter phenomenon. In 2002, Bernard and others explored how personality traits relate to the imposter phenomenon. They concluded that of the five personality traits (e.g., conscientiousness, openness, agreeableness, neuroticism, and extraversion) behaviors associated with high neuroticism positively correlated with high impostorism due to the commonality of the two concepts (e.g., low self-esteem, anxiety, fear). These two studies provide a foundation of information for the relation between the three facets and the imposter phenomenon, but they lack inclusiveness of all the factors as well as the first-generation college student variable. This study expanded on prior

research by viewing these concepts more thoroughly as they relate to first-generation college students.

Self-Perception and Academic Achievement

Self-perception is a factor related to identity and is described as a person's view of themselves. Self-perception can be influenced by many factors including self-esteem, self-efficacy, and self-concept, and is often used interchangeably with these factors. All these factors have been investigated in an academic setting, more so self-concept than self-perception as they relate to academic achievement. Of the literature that has focused on academic self-perception, there has been conflicting evidence of the relation between academic self-perception and academic achievement. One longitudinal study investigating academic self-perception and academic performance in elementary students found no significant relation between the two variables (Stringer & Heath, 2008). On the other hand, another longitudinal study on academic self-perception and academic achievement in elementary students found those variables to be positively correlated: As one increased so did the other (Fu et al., 2020). Stringer and Heath (2008) measured academic achievement by analyzing scores on a questionnaire, whereas Fu and colleagues (2020), measured it by looking at course grades provided by school records. This difference in addition to the difference in duration of the studies could account for the conflicting results.

The studies presented previously have used assessment scores and course grades to measure academic performance, but other studies have used grade point average as a measurement. Assessment scores and course grades all contribute to a student's grade point average; therefore, this is a good indicator of academic achievement due to the inclusiveness. In 2004, Saunders and colleagues aimed to understand self-perception in academia by focusing on

the gender differences in the influence of self-perception on grade point average on high school students. When looking at self-perception, they broke it down into four facets: self-esteem, racial self-esteem, academic self-efficacy, and view on completing school. They found that confidence levels, beliefs in abilities, and motivation to completing school positively correlated with grade point averages. Because literature on the examination of grade point average and self-perception is so limited, the current study relied on self-concept as a factor related to self-identification as well. Rinn (2013) approached academic achievement in students by focusing on academic self-concept and found equivalent results to Saunders and colleagues (2004). Instead of looking at high school students, Rinn focused on college students, specifically first-generation college students. They found that academic self-concept positively correlated with grade point average, and low confidence levels related to lower grade point averages. To expand on this, the current study combined the self-identity elements of these studies and focus on academic self-perception and first-generation college students.

Self-Efficacy and College-Life Satisfaction

Self-efficacy involves a personal belief in achieving a purpose, and academic self-efficacy refers to the ability to accomplish a school-related goal. There are a plethora of studies investigating academic self-efficacy, but few of these have included the first-generation college student variable. In a study analyzing these two variables, White and Perrone (2017), focused on generational status and financial burdens on college students' self-efficacy. They found no significant correlation between self-efficacy and generation status and the education level of a student's parents was not an indicator of self-efficacy. Alternatively, a comparative study analyzing self-esteem, academic self-efficacy, support from family, and support from friends on first-generation college students and non-first-generation college students found contrasting

results. Wang and Castañeda-Sound (2008) found that generation status influenced academic self-efficacy in that first-generation college students had lower levels of self-efficacy. The conflicting results could be explained due to the factors being studied. Wang and Castañeda-Sound focused more on factors related to the self, whereas White and Perrone included variables related to the influence of outside factors.

In the current study, I focused on personal identity and personality traits, so it was to be predicted that the results will align with Wang and Castañeda-Sound (2008). Another study that found related results was when DeWitz and Walsh (2002) aimed to understand perceived self-efficacy on an individual's satisfaction with their college life. They completed their correlational study on a group of psychology students, and they divided their measurement of self-efficacy into three subgroups: social, college, and general, and their measurement of college life satisfaction into compensation, social life, recognition, and quality of education. The results of this study revealed that all three subgroups experience high college life satisfaction. Although satisfaction with college was influenced by outside factors, these factors were still on a personal level and how they relate to the self. The current study built on DeWitz and Walsh's research and methodology to expand academic self-efficacy and focus on the generational status differences in college students.

Personality Traits and Social Connectedness

Social interactions during college can be tremendously affected by personality traits, specifically the Big Five Personality Traits. This concept is also referred to as the Big 5, and it is a continuum of five factors related to personality that include: conscientiousness, openness, agreeableness, neuroticism, and extraversion. Social connectedness in an academic environment refers to the experience of belonging to social groups, organizations, networks, and feeling close

and accepted by others. Previous studies have found data that supports how personality traits influence friendships, specifically the importance of extraversion and openness for developing friendships (Harris & Vazire, 2016). In a study investigating the role of the big five personality traits on emerging friendships, they found that extraversion is important in choosing friends, openness enhances friendships, and agreeableness increases the chances of being chosen as a friend (Selfhout et al., 2010).

Regarding joining social networks, a study exploring personality traits, friendships, and confidence as predictors of emotions found that extraversion predicted happiness and negatively predicted loneliness, and neuroticism predicted loneliness and negatively predicted happiness (Cheng & Furnham, 2002). Extroverts are more outgoing and social, therefore a person who is the opposite, an introvert, engages in social isolation, and has limited social networks. Additionally, an individual high in neuroticism has low confidence levels, specifically when it comes to intimate relationships, so they are less likely to be socially outgoing (p. 332). This research allowed the current study to build on prior knowledge about the relation between extraversion, openness, and agreeableness on social connectedness, and add neuroticism as a factor. As for more research on the relation between neuroticism and social connectedness, Arslan (2021) explored the role of loneliness on the wellbeing and mental health of adolescents. The results of this study were that components related to a sense of belonging positively correlated with feelings of loneliness and being socially excluded can lead to loneliness. Although this study did not focus on the big five personality traits, it offers more data on how loneliness, an indicator of neuroticism, can impact a sense of belonging. Previous research on individual aspects of social connectedness have been investigated, but not the concept as a whole as it relates to the five personality traits.

Current Study

The objective of this study was to investigate the relation between the imposter phenomenon and first-generation college students, analyze key components of the phenomenon as they relate to the overall college experience, and examine the difference in the behavior of first-generation college students compared to non-first-generation college students. Although previous research has established a relation between the imposter phenomenon and first-generation college students (Peteet et al., 2015; Austin et al., 2009), research lacks the examination of self-perception, self-efficacy, and personality traits as they relate to the phenomenon, as well as a comparative analysis of the differences between first-generation and non-first-generation college students. Additionally, previous studies have yet to categorize the overall college experience into three factors that include: academic achievement, college-life satisfaction, and social connectedness. Based on the context of the literature presented above, three hypotheses were formulated. First, first-generation college students are more likely to experience negative factors related to the imposter phenomenon compared to non-first-generation college students. Second, academic achievement will positively correlate with academic self-perception and college life satisfaction will also positively correlate with academic self-efficacy. Third, social connectedness will negatively correlate with high occurrences of neuroticism, low instances of extroversion, agreeableness, openness, and conscientiousness.

Method

Participants

The participants of this study included 145 undergraduate psychology students from a public southeastern university and a public community college. Of this sample, 51 students reported being a first-generation college student, 86 students reported being a non-first-generation college student, and 8 participants did not report their generation status and therefore were excluded from further analyses. See Table 1 for a more thorough view of participants' demographic characteristics. The enrollment type of the participants was both part-time and full-time, and the attending status included both commuter and residential students. For eligibility purposes, participants had to be eighteen or older, identify as an undergraduate student, and have access to the internet. Participants were self-labeled as either a first-generation college student or a non-first-generation college student. To recruit participants, the study used a participation scheduling program, SONA, where participants signed up to participate and then were directed to online questionnaires on Qualtrics.

Materials

To operationally define the imposter phenomenon, this study used scales measuring self-perception, self-efficacy, and big five personality traits. As for the overall college experience, it was operationally defined using scales measuring academic achievement, satisfaction with college life, and social connectedness. This study was approved by the Institutional Review Board (IRB-FY22-663).

Imposter Phenomenon: To measure the imposter phenomenon, the Clance Imposter Phenomenon Scale (CIPS) was used. CIPS includes twenty questions with a sample question stating, "Sometimes I feel or believe that my success in my life or in my job has been the result

of some kind of error." Participants responded to the questions on a five-point scale with one being defined as "not at all true," and five being defined as "very true." The response numbers were added together, and the higher the number the higher the instances of the imposter phenomenon.

Self-perception and Self-efficacy: The Student Self-Efficacy (SSE) is a ten-item questionnaire that measures self-perception and self-efficacy. Sample questions include, " I am confident in my ability to learn, even if I am having a bad day," "If I try hard enough, I can obtain the academic goals I desire," and "Even if I get distracted in class, I am confident that I can continue to learn well." This is a four-point scale with one equating to "not at all true," and four equating to "exactly true." The scores from each question were added together, and the higher the combined score the higher the self-efficacy.

Personality Traits: The Ten-Item Personality Inventory (TIPI) is a brief measurement of the big five personality traits. A sample question states, " I see myself as extraverted, enthusiastic." This is a seven-point scale with one correlating with "strongly disagree," four corresponding with "neither agree nor disagree," and seven indicating "strongly agree." Each of the five personality traits correspond to two questions, with one indicating the occurrence of the personality trait, and the other being the reverse score item. For example, an extroverted person would answer "strongly agree" to the sample question, and they would answer "strongly disagree" to the following statement, "I see myself as reserved, quiet." An average score of the two questions was created.

Academic Achievement: Grade point average (GPA) was a measurement of academic achievement. Participants self-reported their four-point weighted average of classes taken before the time of the study.

College life Satisfaction: The Satisfaction with Life Scale (SWLS) is a five-item measurement of life satisfaction. A sample question states, "The conditions of my life are excellent." The current study replaced life with college life so that the scale applies to college life satisfaction. For example, a question will state, " In most ways, my college life is close to my ideal." This is a seven-point scale where one indicates "strongly disagree," four indicates "neither agree nor disagree," and seven indicates "strongly agree." The score for each question was combined, and the higher the number the more likely the participant is satisfied with life.

Social Connectedness: The Social Connectedness Scale-Revised (SCS-R) is a measurement of social connectedness, and it consists of ten positively worded questions and ten negatively worded questions totaling twenty questions. Sample questions include, "I catch myself losing a sense of connectedness with society," "I feel like an outsider," "I am able to connect with other people," and "I feel understood by the people I know." This is a six-point scale, with one equating to "strongly disagree" and six equating to "strongly agree." A high score from adding all the answer scores together indicated a strong social connectedness.

Open-ended Questions: The study included open-ended questions geared towards understanding the experiences of participants. Sample questions included, "Are you familiar with the imposter phenomenon," "If you are familiar, can you describe the imposter phenomenon," and "Can you describe a situation, if you have one, where you felt like your views about yourself affected your academic performance." The goal of the sample questions was to gather a sense of how certain experiences could relate to the imposter phenomenon, as well as see how factors like self-perception could increase the feelings of impostorism so that future studies can expand on this knowledge.

Design

The current study was a correlational mixed subject's factorial design. The independent variables included self-perception, self-efficacy, and the big five personality traits. All three independent variables were a continuous level of measurement and used each of the scales to indicate the high and low levels of the results. The dependent variables were the overall college experience (e.g., academic achievement, college life satisfaction, social connectedness). The dependent variables were also continuous scales. Each independent variable was evaluated against a dependent variable to find a correlation between the two groups of participants. A regression model was used to test for associations between variables.

Procedure

The procedure started with participants signing up on SONA, where they were prompted to a website that included the questionnaires (i.e., Qualtrics). Before the questionnaires began, students answered demographic questions about their age, race/ethnicity, gender, and whether they were first-generation college students or not. Students were also asked for their consent to participate and was provided information on how they can withdraw at any time. Next, participants started the questionnaires in a fixed order. First, they completed the Clance Imposter Phenomenon Scale to gather a sense of the concept of impostorism. Next, they filled out the Student Self-Efficacy Scale and the Ten-Item Personality Inventory because they were the independent variables. Lastly, they self-reported their grade point averages, filled out the Satisfaction with Life Scale and the Social Connectedness Scale-Revised, then answered the open-ended questions to process the purpose of the study. After completing the questionnaires, participants were briefed on the benefits of the current study as well as how they are contributing to the progression of this topic of research.

Results

The purpose of this study was to investigate the relation between the imposter phenomenon and the overall college experience. Specifically, the current study examined self-perception, self-efficacy, and the big five personality traits as they relate to academic achievement, college-life satisfaction, and social connectedness. See Table 2 for an illustration of the descriptive statistics for all variables. This study was a mixed subjects design, so both first-generation college students and non-first-generation college students took part in each of the questionnaires. Additionally, this study was a 2x2x2 factorial design in that there were three independent variables: self-perception, self-efficacy, big five personality traits, and each variable had a continuous measurement with the low level indicating a low occurrence, and the elevated level indicating a high occurrence.

Analyses

Before we addressed the first hypothesis, we ran a correlation matrix to examine how the variables were associated with each other. See Table 3 for a visual of the correlations. Of note, neuroticism was negatively correlated with the imposter phenomenon measure (CIPS), meaning higher neuroticism was associated with lower CIPS scores, and positively correlated with student self-efficacy (SSE), life satisfaction (SWLS), social connectedness (SCSR), and conscientiousness, meaning higher neuroticism was associated with higher scores on each measure. Additionally, the student self-efficacy measure (SSE) was positively correlated with life satisfaction (SWLS), conscientiousness, neuroticism, and openness meaning higher self-efficacy was associated with higher scores on the other questionnaires.

Hypothesis 1 states: First-generation college students are more likely to experience negative factors related to the imposter phenomenon compared to non-first-generation college

students. To test this hypothesis, I compared CIPS scores for first-generation and non-first-generation students using an independent-samples *t*-test. A Welch two-sample *t*-test found no significant difference between first-generation college students and non-first-generation college students on the Clance Imposter Phenomenon Scale, $t(102.83) = 0.39$, $p = .695$. Next, I used independent sample t-tests to compare first-generation students and non-first-generation student for the academic achievement, college life satisfaction, social connectedness, self-efficacy, and personality traits measures. The only significant difference by generation status was observed for satisfaction with life scale, $t(110.62) = -2.98$, $p = .004$. Therefore, a mediation analyses was run to test whether the effect of generation status on a college students' satisfaction with life differed based on the imposter phenomenon scores. The mediation found a total effect of first-generation status on the SWLS ($p = .004$), and a direct effect of generation status on the SWLS ($p = .0044$), with no significant indirect effect with CIPS scores ($p = .725$).

Hypothesis 2 states: Academic achievement will negatively correlate with low academic self-perception and positively correlate with high academic self-perception. Additionally, college life satisfaction will negatively correlate with low academic self-efficacy, and positively correlate with high academic self-efficacy. To test this hypothesis, a linear regression model was performed with academic achievement, college life satisfaction, and social connectedness as predictors of student self-efficacy. See Table 4 for the illustrations of the linear regression model. The regression model revealed a significant relationship between student self-efficacy and satisfaction with life as seen in Table 4, $b = 0.14$, $SE = 0.04$, $t = 3.60$, $p < .001$. The positive direction of the effect means that higher SWLS scores were associated with higher SSE scores.

Hypothesis 3 states: Social connectedness will negatively correlate with high

occurrences of neuroticism, low instances of extroversion, agreeableness, openness, and conscientiousness. To test this hypothesis, a linear regression model was performed with each of the personality traits as predictors of the social connectedness. See Table 5 for the visual of the linear regression model. Of the five personality traits, the regression model only showed a significant relationship between social connectedness and extraversion, $b = 0.21$, $SE = 0.04$, $t = 4.85$, $p < .001$, and Neuroticism, $b = 0.20$, $SE = 0.05$, $t = 4.35$, $p < .001$. Both personality traits were positively associated with social connectedness.

Qualitative Data from Open-Ended Questions

This study included three open-ended questions: "Are you familiar with the imposter phenomenon," "If you are familiar, can you describe the imposter phenomenon," and "Can you describe a situation, if you have one, where you felt like your views about yourself affected your academic performance." A sum of participants could explain the imposter phenomenon, and described it as feeling undeserving of success, feeling unqualified for positions that success may bring, and not belonging in certain spaces and environments. One of the participants responded with, "As a first-generation student, I have often felt the effects of imposter syndrome. This is that I have often felt that I was unworthy of being a successful college student when the rest of my family was never given the opportunity." For the second open-ended questions, participants detailed situations where negative personal views of themselves impacted their academic performance. Participants mentioned situations where they had low confidence levels, high depression levels, perfectionism pressures, lack of motivation, a fear of asking for help, and a need to seek academic validation as factors that had an impact on their academic performance.

Discussion

In the current study, I aimed to demonstrate whether the imposter phenomenon, and other variables occur differently in students that report as a first-generation than non-first-generation college students, and if the facets investigated correlated positively with the imposter phenomenon. Despite previous literature finding a positive correlation between impostorism and generation status (Peteet et al., 2015) and generation status with self-efficacy (Wang & Castañeda-Sound, 2008), the current study failed to do so. The analysis of the first hypothesis revealed a non-significant difference between first-generation and non-first-generation college students on the imposter measure, illustrating that these students may experience impostorism sentiments similar to each other. This finding may also mean that first-generation college students in this context are no more susceptible to negative college experiences, such as disconnection, alienation, anxiety, and feelings of inadequacy, than non-first generation-college students. White and Perrone (2017), found no relation between life satisfaction and self-efficacy, but in the current study, this was the only variable that differed between generation status. Due to this variable being the only difference and the results of the mediation analysis, it is presumed that one, satisfaction with college life may be inconsistently associated with the imposter phenomenon, grades, sociability, personality, or self-perception, and two, that there is another factor that could explain why students are or are not satisfied with college.

Previous literature has also determined that self-perception positively correlates with academic achievement (Fu et al., 2020; Saunders, 2004), and high self-efficacy positively correlates with life satisfaction (DeWitz & Walsh, 2002). In the present study, the student self-efficacy scale measured both self-perception and self-efficacy. The regression model only showed a significant positive relationship between college life satisfaction and self-efficacy

revealing that how a student perceives themselves, their abilities, and self-value is related to how satisfied they will be in their environment. One of the open-ended questions asked participants to describe a situation where they felt as if their views about themselves affects their academic achievement. Although only 84 out of the 137 students reported their grade point average, the mean of the scores was a 2.94 indicating on average these students are passing their classes. As for the answers reported on the open-ended questions, students mentioned depression, lack of motivation, feeling like an academic perfectionist, and relying on academic validation to feel worthy, and for the most part, most participants were aware of how their emotions and perceptions about themselves could have impacted their academic performance. Despite the current study not finding evidence of a positive correlation between academic achievement and self-perception, it could be inferred that there are protective factors preventing these students from enduring negative effects of low self-perception.

Research has discovered that high neuroticism and low extraversion is associated with low sociability and social inclusion (Arslan, 2021; Cheng & Furnham, 2002). The third hypothesis was supported by the analysis in that high extraversion positively correlated with social connectedness, suggesting that students who are more creative and outgoing are more social. Interestingly, students who were high in neuroticism were also high in social connectedness. This finding is different than previous literature that describes individuals high in neuroticism as lonely, socially excluded, and low in confidence (Arslan, 2021; Cheng & Furnham, 2002). An explanation for this finding is that these students are not struggling to find belongingness, and therefore have found peers who are similar to them and share similar qualities as them.

Limitations

There are a number of limitations in the current study. For one, the sample size consists of only psychology students. Compared to students from other majors, psychology students may be more aware of their behaviors if they are experiencing impostorism, so the variables of this study may not directly apply to them due to their exposure of psychology related phenomena and theories. Additionally, there were more non-first generation than first-generation college students in the sample size which could have influenced the differences between generation status. Another limitation regarding the sample size, is that the students were majority white and females. Race and gender in the sample size is representative of the population of students in these schools, so the fact that most of the participants have similar imposter scores indicates that most of them have found a sense of belonging on their campuses. In the previous literature, it should be noted that minorities face imposter feelings at higher rates than the majority (Austin et al., 2009; Clance & Imes, 1978).

Secondly, some of the students that participated did not have a grade point average because this was their first semester at their school. Due to this, almost 50 students did not include a GPA which could have influenced the data that was analyzed. Additionally, the measures are sizable, but some of the questionnaires are brief and are not suitable for thoroughly understanding the concepts that they are measuring. For example, the TIPI consists of ten statements, with only two questions per trait. This observation could explain why student high in neuroticism were also high in social connectedness. For the sake of the current study, brief questionnaires were used due to the number of variables being studied. For future research, it is recommended that the researcher limits the number of variables being studied so that they may get a comprehensive analysis of their variables. Future researchers can also be more inclusive of their participant pool so that the results may be more generalizable to more college students.

The next steps for future research on this topic would be to investigate how and what protective factors assist in preventing imposter feelings from affecting a college students' life, a study using the same questionnaires from the current to analyze these variables in non-white students, and the ways in which parenting styles influence a students' overall college life. In doing this, researchers will gain more information into the life of college students and the variables that may affect it.

Despite the non-significant findings, the current study offers a new direction for this topic in research. This study also assists researchers in understanding what other factors may influence a student's overall college experience. A benefit from this study shows that on average, first-generation college students at these colleges are not experiencing negative effects of their generation status. This study was still a learning opportunity that will help guide future research on first-generation college students, the imposter phenomenon, and the overall college experience.

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Table 1
Demographic Factors of all Participants

Variable	Present Study *N* (%)
College	
University of North Carolina at Greensboro	59 (41%)
Guilford Technical Community College	86 (59%)
Generation Status	
First-Generation College Student	51 (35%)
Non-First-Generation College Student	86 (59%)
Did Not Report	9 (6%)
Gender	
Female	92 (67%)
Male	38 (28%)
Non-Binary	4 (3%)
No Response	3 (2%)
Race/Ethnicity	
Asian, Not Hispanic/Latinx	9 (7%)
Black, Not Hispanic/Latinx	29 (21%)
Black, Ethnicity Not Provided	7 (5%)
Multirational, Not Hispanic/Latinx	8 (6%)
Multirational, Ethnicity Not Provided	2 (1%)
White, Not Hispanic/Latinx	50 (36 %)
White, Ethnicity Not Provided	1 (1%)
Hispanic, Any Race	29 (21%)
Other/No Response	3 (2%)

Table 2

Descriptive Statistics for Each Variable with Their Range, Median, and Standard Deviations

Variable	Range	*M*	SD	Number of Observations
Grade Point Average (GPA)	0-4	2.94	1.12	84
Clance Imposter Phenomenon Scale (CIPS)	1-5	3.02	0.8	137
Student Self-Efficacy (SSE)	1-4	3.11	0.57	137
Satisfaction with Life Scale (SWLS)	1-7	4	1.38	137
Social Connectedness Scale Revised (SCSR)	1-6	3.71	0.9	137
OCEAN Traits				
Openness	1-7	5.25	1.31	137
Conscientiousness	1-7	5.23	1.25	137
Extraversion	1-7	5.37	1.58	137
Agreeableness	1-7	4.56	1.15	137
Neuroticism	1-7	3.88	1.49	137

Table 3

Correlation Matrix for Each Variable Included in the Study

	CIPS	SSE	GPA	SWLS	SCSR	EXTR	AGR	CONS	NEU	OP
CIPS	-	-0.22	-0.08	-0.18	-0.24	-0.14	-0.06	-0.15	-0.39***	-0.09
SSE		-	0.11	0.38**	0.14	0.18	-0.04	0.41**	0.30*	0.33**
GPA			-	0.25	0.05	0.07	-0.03	-0.01	0.14	0.05
SWLS				-	0.23	0.01	0.09	0.19	0.38**	0.16
SCSR					-	0.44**	0.17	0.05	0.42**	0.24
EXTR						-	-0.16	-0.17	0.20	0.24
AGR							-	0.26	0.13	0.06
CONS								-	0.33**	0.09
NEU									-	0.09
OP										-

Table 4

Regression Model with Academic Achievement, College Life Satisfaction, and Social Connectedness as Predictors of Student Self-Efficacy

	Estimate	SE	t-value	p-value
(Intercept)	2.41	0.26	9.36	< .001
GPA	0.01	0.05	0.12	.902
SWLS	0.14	0.04	3.60	< .001
SCSR	0.05	0.06	0.88	.379

Table 5

Regression Model for Personality Traits as Predictors of Social Connectedness

	Estimate	SE	t-value	p-value
(Intercept)	1.32	0.42	3.11	.002
Extraversion	0.21	0.04	4.85	< .001
Agreeableness	0.16	0.06	2.75	.007
Conscientiousness	-0.05	0.06	-0.82	.415
Neuroticism	0.20	0.05	4.35	< .001
Openness	0.08	0.05	1.58	.117