

Personality Factors and Their Influence on Student Engagement Amid The COVID-19 Pandemic

Tyler Wong, Shireen Mohamdjawad, Ruth Castillo, and Brittany Kester

Irvine Valley College, CA

Email: tywongny@gmail.com

Suggested bibliographic reference

Wong, T., Mohamdjawad, S., Castillo, R., & Kester, B. (2022). Personality factors and their influence on student engagement amid the COVID-19 pandemic. *Psi Beta Journal of Student Research*, 2(1), 44-48. <https://doi.org/10.54581/GKQJ9097>

Abstract

Classic research conducted by Terenzini & Pascarella (1991) and Tinto (1993) concluded that college students learn more if involved in both academic and out-of-class activities. This study examined how unprecedented college campus closures during the COVID-19 pandemic impacted students' sense of college connection. In this study, participants (N=1,409) completed an online questionnaire that measured participants' college connectedness, shyness, the Big Five (extroversion, agreeableness, openness, conscientiousness, and neuroticism), and several aspects of interpersonal communication. It was hypothesized that non-shy and extroverted students would more successfully maintain a sense of college connectedness during the pandemic than shy and introverted students. It was also hypothesized that there would be a significant drop in college connectedness scores compared to a pre-pandemic connectedness study (Psi Beta, 2011). The first hypothesis was supported as there was an inverse relationship between non-shy students and college connectedness. The second hypothesis was also supported; in comparison to the mean of college connectedness prior to COVID-19, college connectedness declined. Additional findings include no significant relationship between extraversion scores and college connectedness, and a significant correlation between honor society membership and college connectedness. Future research might explore other factors that may impact college connectedness, such as immigration status, and first-generation status.

Keywords: COVID-19, pandemic, college connectedness, student, Big Five, personality

The connection students have with their campus goes far beyond colors and mascots, as college connectedness has been shown to affect the depth and quality of student learning. For instance, college students involved in both academic and out-of-class activities were shown to have learned more from their classes (Terenzini & Pascarella, 1991; Tinto, 1993). The loyalty, connection, and sense of identity associated with one's college are closely related to the term "campus connectedness" (Baynard, 2008). Researchers have used questionnaires in an attempt

to identify what creates a sense of pride and connection to an institution. One such measure, The College Connectedness Questionnaire (Tucker & Rudmann, 2008), amalgamated several unique college connection scales to fully measure the level of connection a student felt to their particular campus. The questionnaire contains items about campus engagement. However, it is possible that certain personality traits (e.g., extroversion, shyness) play a role in college connectedness.

Personality has been measured through the five-factor model of personality (McCrae & Costa, 2003). A shortened version of this measurement, the Ten Item Personality Inventory, more briefly examines the main five aspects of personality; agreeableness, conscientiousness, extroversion, openness, and neuroticism (Gosling et al., 2003). It has been found that introversion correlates negatively with social engagement (Tuovinen, et al., 2020). Shyness and introversion differ, and this difference may be important to recognize when determining the role of personality in college engagement. Shyness is defined as the feeling of anxiety and inhibition people experience in social situations, while introversion conceptually is an orientation toward one's internal private world, as opposed to the outer social world (American Psychological Association, 2022). Essentially, shyness inhibits social connection and interaction while introversion is a preference for fewer social connections.

The COVID-19 global pandemic undoubtedly shifted much of the world into an entirely online setting. In this present study, it was first hypothesized that participants would report a lower level of college connection compared to the level of college connectedness measured in a pre-pandemic study conducted by Tucker & Rudmann, 2008. Second, it was hypothesized that extroverted students would have more successfully maintained a sense of college connectedness during the pandemic than introverted students. Third, it was hypothesized that non-shy students would have more successfully maintained a sense of college connectedness during the pandemic than shy students.

Method

Procedure

This study was conducted as part of the 2021-2022 Psi Beta Honor Society national research project. Chapters of the honor society were given the opportunity to participate. Upon registration and securing local IRB approval, a link to the research questionnaire was made available to participating Psi Beta chapter researchers. The questionnaire was created using the Google Forms platform. Each

chapter then recruited a minimum of 30 participants. The online research questionnaire was available from October 10, 2021, to February 15, 2022. Once the data gathering period ended, the Psi Beta national office exported an Excel file and placed a link to it on the Psi Beta national website where visitors could download the raw data file. Upon receiving the data file, our research team cleaned and prepared the data (e.g., recorded reverse variables and deleted incomplete cases). The data was then imported into the JASP statistical analysis program, where total scores for the connectedness, shyness, and Ten-Item Personality Inventory were computed. Cronbach's alpha coefficients were also computed for each scale to ensure the reliability of the scales.

Participants

One thousand four hundred and nine participants were recruited by participating Psi Beta chapters. Two hundred thirty-six participants were removed (32 did not give their consent to participate, 35 were underage, 120 gave invalid responses, and 49 had missing data). Students from participating colleges were removed if less than 15 participants filled out the questionnaire from each college. In all, 11 colleges provided participants for this study.

Participants were asked to state their ethnicity by either choosing an ethnicity provided as a multiple-choice or by using a fill-in-the-blank in case their ethnicity was not listed. Of the participants, 40% were of White/European American ethnicity, 27% Hispanic/Latino, 20% Asian/Asian American, 4% Black/African American, and 9% were mixed race or other. Of the participants, 29% were male, 69% were female, and 2% were other. The participants' mean age was 23.55. Participants identified their college from a dropdown item that listed all of the participating colleges, indicated the number of semesters they had attended college and reported if they were part-time or full-time students.

Measures

College Connectedness

College connectedness served as the dependent variable for our study. Participants were asked to self-rate their college connectedness experience through an 18-item College Connectedness Questionnaire (Tucker & Rudmann, 2008). Questions asked participants to what extent they felt a certain emotion toward their college (e.g., “proud,” “connected,” and if they would recommend the college to potential students) using a Likert scale (1 = Not at all; 5 = Extremely). Participants then responded “Yes,” “No”, or “Unsure” to questions regarding their college-related behaviors (e.g., “Have you purchased any item with the college logo on it?” “Are you taking any performance-based classes this semester?” Participants were asked whether they were part of an honors society (for example, Psi Beta or Phi Theta Kappa).

Personality

Participants’ Big Five personality traits were measured using a Ten-Item Personality Inventory (Gosling et al., 2003). Participants were asked to indicate the extent to which they Agree or Disagree with 10 statements about their personality (e.g., extraverted enthusiastic, critical quarrelsome, dependable self-disciplined) using a Likert scale (1 = Disagree strongly, 7 = Strongly agree).

Shyness

Participants were asked to answer 19 questions on the Shyness Scale (Weyer & Carducci, 2001) to assess their level of shyness. The questions asked to what extent participants felt or acted a certain way (e.g. “I feel nervous when speaking to someone in authority,” “I have trouble looking someone right in the eye,” “I am usually a person who initiates conversation.” Responses were gathered using a Likert scale (1 = Very Uncharacteristic; 5 = Very Characteristic).

Results

In comparison to the previous measure of college connectedness ($M=57.55$ in the year 2010), college connectedness declined to $M=54.073$, $t(1,408) = -6.684$, $p = .001$. There was an inverse relationship

between non-shy students with college connectedness, $r(1,408) = -.175$, $p = .001$. In other words, as shyness scores increased, college connectedness decreased. There was a significant relationship between extraversion scores and college connectedness, $r(1,408) = 0.23$, $p < .001$. The mean Connectedness score was significantly higher for honor society membership compared to participants not in an honor society, $t(1,408) = 7.23$, $p < .001$. In other words, the students who were members of an honor society had higher college connectedness scores than non-members.

Lastly, a multiple regression analysis was conducted to clarify the relative contribution of each variable in explaining the variation in the dependent variable of College Connectedness. The adjusted R^2 of 0.087 revealed that taken together, Shyness, Extraversion, and honor society membership accounted for just 8.7 percent of the Connectedness variance. As can be seen in Table 2, honor society engagement, and Extraversion produced significant standardized beta coefficients, while Shyness did not.

Discussion

The first hypothesis was supported as participants reported a lower level of college connection compared to the level of college connectedness measured in an earlier, pre-pandemic study in 2010. One reason participants in this study had a lower level of college connectedness compared to pre-pandemic levels could be due to a lack of in-person engagement, particularly when it came to school activities such as clubs, sports, and other extracurriculars. The second hypothesis—that extroverted students would have more successfully maintained a sense of college connectedness during the pandemic than introverted students—was supported; while the Pearson r between connectedness and extroversion was significant, extroversion was found to be a significant predictor of connectedness in the linear regression model. The somewhat weak relationship between extraversion and college connectedness is unclear; perhaps introversion/extroversion has less impact when instruction is virtual. The last

hypothesis was partially supported as non-shy students more successfully maintained a sense of college connectedness during the pandemic than shy students according to the Pearson r test. Shyness, however, did not significantly predict connectedness in the linear regression analysis. This may be the case as shy individuals tend to keep to themselves, but in online courses on video conferencing programs like Zoom, they have the option to turn off their cameras to avoid being active participants. In an in-person event, however, shy individuals are forced to step outside of their comfort zone. Although we had not hypothesized it, we found active engagement in an honor society to correlate with significantly higher college connection scores.

The results of this study reflect how students were impacted by remote learning and several factors that impact college connectedness. Our findings suggest the benefits of an on-campus learning environment. Face-to-face engagement is important when it comes to clubs or extracurriculars, for example. In-person engagement facilitates a connection between club members and students involved in other extracurricular activities. We should not take for granted the value of the interaction that takes place in clubs and other programs in one's college. For many students, face-to-face interaction may be essential to fostering a sense of college connection. These programs give individuals a sense of belonging and purpose; when something as uncertain as COVID-19 strikes, belonging and purpose are especially important. Another benefit of the study was the realization that some individuals need a nudge to break out of their interpersonal shells. It is beneficial to accommodate all types of individuals to join a club or extracurricular activity whether it takes place online or in person.

Future research could look into ways to encourage students to become more involved in extra-curricular and co-curricular options available on campus. Assuming campus connection contributes to positive academic outcomes (Pascarella & Terenzini, 1991; Tinto, 1993), promoting student engagement should be a top priority. It could also be

beneficial to measure whether honors society membership alone increases college connectedness or whether a variety of organized group activities have the same positive impact on college connectedness. Future research may also benefit from studying the relationship between ethnic and cultural influences on community college connectedness. For instance, which ethnicities had greater college connectedness during the pandemic? Is there a difference in college connectedness among students from collectivist and individualist cultures? Exploring these different factors may allow for a better understanding of how students connect to the community college, allowing colleges to make use of such factors in order to enhance college connectedness and, therefore, college retention.

The present study was not without limitations. The research questionnaire was long and may have fostered survey fatigue. The study did not address the variety of negative experiences students experienced during the pandemic such as loss of loved ones, contracting the virus, and/or loss of occupations. An additional limitation is that the study did not compare the results for participants enrolled on campuses that were completely closed to those from campuses that provided at least limited on-campus activities. The study used a brief (10-items) version of the Big 5 personality inventory; using this shorter version of the Big 5 probably sacrificed greater precision that the longer 44-item version would have provided. Lastly, because participants responded to an online questionnaire, there is no definitive way to be sure that there were no duplicate responses.

Altogether, the current study provided an opportunity to explore the relationship between community college connectedness during the COVID-19 pandemic, and factors (i.e., shyness, personality differences, honors program participation) that may have influenced college connectedness. Understanding these factors may better assist students and professors in encouraging campus connectedness and suggest more ways to engage students in campus life.

Table 1*Descriptive Statistics for Measurement Scales*

| Scale | <i>N</i> | <i>M</i> | <i>SD</i> | <i>Cronbach's Alpha</i> |
|---------------|----------|----------|-----------|-------------------------|
| Connectedness | 1,409 | 55.10 | 13.74 | 0.84 |
| Shyness | 1,409 | 54.07 | 15.16 | 0.92 |
| Extraversion | 1,409 | 7.69 | 3.20 | 0.70 |

Note. Shyness was measured on a Shyness Scale (Weyer & Carducci, 2001). Honor society membership was measured by asking participants whether or not they were members of any honor society. Extraversion was measured on the Ten Item Personality Inventory (TIPI) (Gosling et al., 2003).

Table 2*Linear Regression Statistics for the Study Variables*

| Variable | β | <i>t</i> | <i>p</i> |
|---------------|---------|----------|----------|
| Shyness | -0.052 | -1.59 | 0.113 |
| Extraversion | 0.194 | 5.94 | <.001 |
| Honor Society | 0.189 | 7.43 | <.001 |

References

- American Psychological Association. (2022). *American Psychological Association dictionary of psychology*. Retrieved June 7, 2022, from <https://dictionary.apa.org/shyness/introversion>
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big Five personality domains. *Journal of Research in Personality*, 37, 504-528. [https://doi.org/10.1016/S0092-6566\(03\)00046-1](https://doi.org/10.1016/S0092-6566(03)00046-1)
- McCrae, R. R., & Costa, P. T., Jr. (2003). *Personality in adulthood: A five-factor theory perspective* (2nd ed.). Guilford Press. <https://doi.org/10.4324/9780203428412>
- Psi Beta (2011). Psi Beta national research study 2010-11. (Unpublished study). Irvine Valley College Psychology Department.
- Terenzini, P.T., Pascarella, E.T. Twenty years of research on college students: Lessons for future research. *Research in Higher Education*, 32 83-92 (1991). <https://doi.org/10.1007/BF00992835>
- Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition* (2nd ed.). Chicago: University of Chicago Press.
- Tucker, K. L., & Rudmann J. L. (2008). Campus Connectedness Scale. Unpublished manuscript, Department of Psychology, Irvine Valley College.
- Tuovinen, S., Tang, X., & Salmela-Aro, K. (2020). Introversion and Social Engagement: Scale validation, their interaction, and positive association with self-esteem. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.590748>
- Weyer, C. Y., & Carducci, B. J. (2001, August). The three-component model of shyness: Conceptual, correlational, and treatment considerations. Post presentation at the annual meeting of the American Psychological Association, San Francisco.