

# Protect Your GPA From COVID-19: The Power of Grit and Resilience

Michael Wilson

Dr. Kathryn Hamilton (Faculty Advisor)



## INTRODUCTION

The COVID-19 pandemic has featured many impacts to higher education. Academic performance in relation to the COVID-19 pandemic has received minimal research compared to other topics like mental health and productivity. Previously, research found there was no difference in academic performance before and during the COVID-19 pandemic and that anxiety isn't a negative component that explains students' stress with academics amidst the academic shift of the pandemic (El Said, 2021; Jun et al., 2021).

**Aim:** Therefore, the current study seeks to explore whether protective factors like **grit** and **resilience** can improve both **perceived** and **actual** academic performance in students and whether these factors **moderate** COVID-19 related **concerns**.

## Hypotheses

- H1a.) Students who possess higher levels of grit will demonstrate greater perceived academic performance.
- H1b.) Students with higher levels of resilience will demonstrate greater perceived academic performance.
- H2a.) Students with higher levels of grit will have a higher grade point average (GPA).
- H2b.) Students with higher levels of resilience will have a higher grade point average.
- H3a.) Students who possess high levels of grit will report lower levels of COVID-19 concern.
- H3b.) Students who possess high levels of resilience will report lower levels of COVID-19 concern.

## Method

### Participants

- N = 48 participants from a small Midwestern university
- 64% Women
  - 89% White
  - 54% Senior Standing
  - Participants recruited through social media and summer courses
  - Participants from summer courses were compensated through course credit

### Measures and Procedure

- Participants completed a series of online questionnaires:
- Perceived Academic Performance (Daugherty & Hamilton, 2012)
  - COVID-19 Concerns (Plakhotnik et al., 2021)
    - Concern for Future Job Prospects
    - Concern for Degree Completion
  - GPA
  - Grit (Duckworth & Quinn, 2009)
    - Consistency of Interest
    - Perseverance of Effort
  - Academic Resilience (Cassidy, 2016)
  - Demographics

TABLE 1

Correlation Matrix Exploring Relationships among Grit, Academic Resilience, Perceived Academic Performance, GPA, and COVID-19 Concerns

	1	2	3	4	5	6	7
Grit							
1. Grit – CI	—						
2. Grit - PE	.40**	—					
3. Academic Resilience	.29	.51**	—				
4. PAP	.29	.33*	.61**	—			
5. GPA	.29*	.33*	.28	.28	—		
COVID-19							
6. COVID-19 – DC	-.10	-.09	.01	-.20	-.05	—	
7. COVID-19 – FJP	-.36*	-.13	-.18	-.21	-.20	.64***	—

Note. N = 42-48. CI = consistency of interest; PE = perseverance of effort; AR = academic resilience; PAP = perceived academic performance; GPA = cumulative grade point average; COVID-19 = COVID-19 concerns; DC = degree completion; FJP = future job prospects. \* p < .05, \*\* p < .01, \*\*\* p < .001.

## RESULTS

A correlation matrix was used to test each hypothesis.

- H1a.) Providing **partial support**, the **perseverance of effort subscale of grit** had a **weak positive correlation with perceived academic performance** (Table 1).
- H1b.) A **moderate positive correlation** between **academic resilience** and **perceived academic performance** and the result was statistically significant,  $r(40) = .61, p < .001$  (Table 1).
- H2a.) The **perseverance of effort subscale of grit** had a **positive moderate correlation** with GPA,  $r(46) = .33, p = .02$ , and the **consistency of interest subscale of grit** had a **positive weak correlation** with GPA,  $r(46) = .29, p = .0499$  (Table 1).
- H2b.) Contrary to H2a, the **weak positive correlation** between **academic resilience** and GPA,  $r(44) = .28, p = .06$ , failed to reach significance (Table 1).
- H3a.) Providing **partial support**, the consistency of interest subscale of **grit** had a **negative moderate correlation** with the **future job prospects subscale of the COVID-19 concerns measure**,  $r(45) = -.36, p = .01$  (Table 1).
- H3b.) The **weak negative correlation** between **academic resilience** and **both subscales of COVID-19 concerns** failed to reach significance (Table 1).

## ACKNOWLEDGEMENTS

Thank you to Kristen Leer, Hailey Hansen, and Maddie Olson for suggesting edits and revisions to this poster and to the associated manuscript.

This project was supported, in part, by the Department of Education: McNair Scholars Program

## DISCUSSION

The purpose of this study was to explore the relationship of grit and resilience with actual and perceived academic performance, along with students' concerns about COVID-19, in the context of the COVID-19 pandemic.

Our data showed **mixed** results for the hypotheses. Hypotheses 1a and 2b were **fully supported** by the data. Hypotheses 1b and 3b were **partially supported**. Hypothesis 2a and 3a were not supported. Expanding on earlier studies of academic success, we found that subscores of **grit** and **resilience** predicted **perceived** academic performance and that **grit** was also a predictor of **actual** academic performance, a differentiation that had not been observed previously. Although COVID-19 **concerns** were **not** significantly correlated with **resilience**, a significant correlation with **consistency of interest** was observed in the expected direction.

The results from the current study are consistent with findings from Duckworth and Quinn (2009) who found that **grit** predicted later success amongst Spelling Bee finalists and West Point cadets. Taken together, these results suggest that **grit** may be a factor of **success** in a variety of **different contexts**.

## FUTURE DIRECTIONS

Long-term consequences of COVID-19 on academic performance in higher education need to be explored. Future research should **differentiate** between **perceived** and **actual** academic performance to better understand **student** success.

## REFERENCES

- Cassidy, S. (2016). The academic resilience scale (ARS-30): A multidimensional construct measure. *Frontiers in Psychology, 17*. <https://doi.org/10.3389/fpsyg.2016.01787>
- Daugherty, T.K., & Hamilton, K. L. (2012, May). *Factor structure and discriminant validity of a 360-degree student evaluation of instruction*. Poster presented at the Conference of the Association for Psychological Science, Chicago, IL.
- Duckworth, A. L., & Quinn, P. D., (2009). Development and validation of the short grit scale (Grit-S). *Journal of Personality Assessment, 91*(2), 166-174. <https://doi.org/10.1080/00223890802634290>
- El Said, G. R., (2021). How did the COVID-19 pandemic affect higher education learning experience? An empirical investigation of learners' academic performance at a university in a developing country. *Advances in Human-Computer Interaction, 2021*. <https://doi.org/10.1155/2021/6649524>
- Jun, J., Toh, Y. N., Sisk, C. A., Remington, R. W., & Lee, V. G. (2021). Do concerns about COVID-19 impair sustained attention? *Cognitive Research: Principles and Implications, 6*(1). <https://doi.org/10.1186/s41235-021-00303-3>
- Plakhotnik, M. S., Volkova, N. V., Jiang, C., Yahiaoui, D., Pheiffer, G., McKay, K., Newman, S., & Reißig-Thust, S. (2021). The perceived impact of COVID-19 on student well-being and the mediating role of the university support: Evidence from France, Germany, Russia, and the UK. *Frontiers in Psychology, 12*. <https://doi.org/10.3389/fpsyg.2021.642689>