Exploring Relationships Between Grit, Belonging, Institutional Compassion, Pandemic Stress, and Goal Progress Among Emerging Adult Post-Secondary Students

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Abstract

Grit and belonging are consistently important factors in emerging adult academic outcomes (Morrow & Ackermann, 2012). This study examines the role of grit (i.e., goal perseverance, consistency of interest, and adaptability), belonging (i.e., sense of fitting in and feeling valued), and perceived institutional compassion (i.e., care/support and resources for students in pandemic-related responses) in emerging adults' academic goal pursuits amid COVID-19 challenges. Emerging adult participants (age 18–24; $N =$ 258) representing a diverse sample of traditional, full-time, undergraduate students across the United States (60% women; 47.31% White, 18.46% Black/African American, 17.31% Asian, 10.77% Hispanic/Latino/a/x), completed an online survey assessing pandemic-related stress, grit, belonging, goal pursuits, and the newly developed Institutional Compassion Scale (Schmahl, 2021). Unexpectedly, pandemic-related stress was unrelated to student assessments of their progress toward academic short- and long-term goals. But grit and belonging were associated with pandemic-related stress: high stress is associated with a weaker sense of belonging and with lower grit. Institutional compassion was associated with all three major study variables: grit, sense of belonging, and stress. Higher institutional compassion was associated with a greater sense of belonging and less pandemic-related stress. The importance of grit, belonging, and particularly institutional compassion are discussed as they pertain to emerging adults' perceptions of themselves as progressing toward their goals during stressful periods such as the onset of the COVID-19 pandemic.

Self-determination theory (SDT) posits three fundamental psychological needs—competence, relatedness, and autonomy necessary for growth, integrity, and well-being (Deci & Ryan, 2000). While humans seek to satisfy these needs throughout life, the task can be more difficult during emerging adulthood as individuals establish themselves away from former support systems (Arnett, 2000; Furstenberg, 2010; Schwartz et al., 2005). Fulfillment of these needs for autonomy, relatedness, and competence can contribute to success and well-being for emerging adults. These constructs are well-aligned with key constructs in the post-secondary student development literature, namely grit and sense of belonging, both of which support students through challenges that impede progress toward meeting academic and career goals (Duckworth, et al., 2007; Morrow & Ackermann, 2012). Institutions of higher education have an important role in promoting emerging adults' development of grit and belonging, in part through the care that they demonstrate to students facing challenges.

The pandemic caused by COVID-19 was one such challenge, globally experienced by emerging adults albeit with varied effects on individuals and groups. In the United States, the upheaval to college and university campuses likely impacted emerging adults' pursuit of competence, relatedness, and autonomy needs by disrupting their academic pursuits, limiting social opportunities, and removing many institutional structures that support students' fulfillment of social and academic needs. Given their contributions to emerging adult developmental and academic outcomes, this study adds to a

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growing body of literature exploring the relationship between grit and belonging with positive outcomes among emerging adults during the onset of the global pandemic during Spring 2020 (e.g., Hou et al., 2021; Mosanya, 2020) and extends the discussion to examine the impact of institutional compassion on emerging adults' progress toward academic goals and diminished stress.

Grit, Belonging, and Institutional Compassion

Grit

Grit refers to consistent interest in a goal and perseverance of effort toward attaining that goal (Duckworth et al., 2007). It is a personal characteristic useful for explaining how individuals can achieve success in the face of adversity. Emerging adult grit contributes to the successful transition from home to unfamiliar institutional structures (O'Neal et al., 2016). As such, grit is a meaningful construct amid COVID-19 uncertainty and, for some, pandemic-related stress. Among U.S. 1st-year college students and international students in the United Arab Emirates, it appears grit is associated with pandemic resilience and protective against the impact on academic stress (Bono et al., 2020; Mosanya, 2020, respectively). As such, emerging adult students with more grit may be more likely to maintain progress toward academic and career goals (i.e., goal pursuits; Mosanya, 2020; Fite et al., 2017).

Critics of grit suggest the construct overemphasizes personal agency and diminishes the role of institutional and systemic inequities (e.g., Goodman, 2018). This is particularly relevant for ethnic minority students and others who have been historically marginalized in institutions of higher education (Golden, 2017; Kundu, 2017). These critiques warrant careful practical application of grit as a "character value" (Golden, 2017). There is mixed evidence that grit as a non-cognitive trait is useful for predicting developmental and academic outcomes across diverse populations. Psychological grit predicted high school completion among a diverse sample of Hispanic/Latino and Black students in Chicago public high schools (Ekreis-Winkler et al., 2014). And among Black men pursuing post-secondary education, grit predicted positive development outcomes and collegiate success above other academic indicators such as grade point average or ACT scores (Strayhorn, 2013). On the other hand, grit does not appear to predict retention for Hispanic college students (Lopez & Horn, 2020). And Grit-S scores (Duckworth & Quinn, 2009) the most common measure of grit, were weakly associated with demographic variables—including ethnicity—in a meta-analysis of grit studies representing 66,807 diverse individuals (Crede et al., 2017).

This weak association may be due, in part, to the finding that ethnic minority students appear to rate themselves lower on grit measures due to internalized prejudices which may reduce the likelihood they self-report perseverance (Akos & Kretchmar, 2017). Individuals from historically minoritized or marginalized backgrounds may also accumulate skills in adapting to new situations, as called upon by the sociocultural context such as a student of color moving to a predominantly white post-secondary institution. While seminal grit research addresses flexibility/adaptability as a component of grit, the development of the Triarchic Model of Grit Scale was the first to explicitly measure adaptability as a dimension of grit (Datu et al., 2017). Developed specifically to include collectivist cultural orientations, the TMGS may provide a more culturally sensitive measure for assessing grit within post-secondary contexts. In this model, adaptability refers to one's ability to accommodate change with flexibility while maintaining effort and interest during challenges. Adaptability is associated with higher levels of academic self-efficacy and vocational/skill discovery and development (Datu et al., 2017).

It is essential to better understand the role of grit in academic and development outcomes for ethnic minority emerging adults who have been most disproportionately impacted by the pandemic (U.S. Department of Education, 2021). However, it is important to utilize measures of grit that have cross-cultural validity.

Belonging

Grit may be strongly associated with social factors among cultural groups that are more strongly oriented toward interdependence, as connections to friends and family fuel perseverance (Datu et al., 2017). As such, no matter how "gritty" an individual may be, cultural and contextual barriers that impede social connections may hinder one's ability to achieve success and well-being. For example, first-generation students or ethnic minority students on a predominantly white campus may experience a lowered sense of "fitting in" and being accepted (Baumeister & Leary, 1995) and thus, a diminished sense of belonging.

For emerging adults, belonging results from feelings of campus support, connection, acceptance, care, and community and contributes to successful student transitions into university life (Strayhorn, 2019; Wang et al., 2013). Belonging satisfies the fundamental psychological need for relatedness (Deci & Ryan, 2000) and predicts college student outcomes, such as academic goal attainment (Morrow & Ackermann, 2012). Belonging is especially important for first-year students and those who are historically marginalized, for whom establishing new social relationships and finding fit amongst peers and within the (predominantly white) institution itself are more challenging (Kundu, 2017). Importantly, sense of belonging protects students from the effects of stress, including pandemic-related stress (Procentese et al., 2020).

Institutions of higher education foster emerging adults' belonging in many ways (e.g., student organizations, supportive faculty; Means & Pyne, 2017). But the social and

institutional supports students had come to rely upon were disrupted in Spring 2020 when many colleges/universities had to shutter dorms, cancel or move courses into virtual environments, and halt all recreational activities. These disruptions potentially increased levels of stress for emerging adults seeking relatedness, and thereby adversely impacted their goal pursuits.

Institutional Compassion

When the pandemic began disrupting post-secondary institutions in the U.S., all campuses were forced to make major decisions about nearly every facet of the post-secondary experience including the closure of residence halls, canceling or moving courses online, and innumerable decisions around grading, financial aid, student employment, and student life. Institutions were forced into challenging decisions for health and safety reasons as well as state or local municipality-enforced lockdowns. Despite the well-intended efforts by institutions, national headlines were made by some campuses for shuttering without consideration to student housing and food insecurity (e.g., Kamenetz, 2020; Redden, 2020) and as the semester wore on, schools that maintained strict grading and attendance policies without consideration to student concerns about internet access or the academic effects of the pandemic's upheaval were roundly critiqued. On the other hand, institutional responses to the COVID-19 onset in the U.S. that were student-centric, provided resources, and conveyed caring support to students had the potential to minimize, rather than exacerbate, the disruption of the pandemic.

Compassion entails a response in the face of suffering by others; institutions perceived to provide practical care in terms of resources and enactment of policies and procedures that support students' health, learning, and overall well-being may have buffered the impact of stress and disruption to goal pursuits posed by the pandemic. Compassionate leadership and policies convey the sense that administration, faculty, and staff care about students and their success which in turn helps students feel a greater sense of belonging to the school and can help foster a desire to persevere in the face of the pandemic and pandemic-related stress. Thus, institutional compassion may help facilitate fulfillment of SDT needs and ultimately, well-being (Deci & Ryan, 2000). This is of particular importance to students who were hardest hit by the initial onset of the pandemic, including those belonging to historically minoritized ethnic groups upon whom COVID-19 has had disparate effects (U.S. Department of Education, 2021).

Institutional compassion is grounded deeply in post-secondary student development and retention. Tinto's work on student development is dominant in the field of higher education but often misses Tinto's original concern that focusing solely on student retention is misguided and that individuals must not merely stay at institutions, but rather, that they must "grow *socially and intellectually* as a result of

staying" (Tinto, 1987, pp. 157, *emphasis added*). Therefore, institutions must care deeply about the developmental growth and cognitive and social outcomes of emerging adult students, including the promotion of their ability to fulfill their self-determined needs for competence, autonomy, and relatedness.

Current Study. In this study, we examine grit, belonging, and institutional compassion in emerging adults' experiences of pandemic-related stress. We hypothesize that pandemic-related stress negatively associates with student perceptions of goal progress and that grit and belonging moderate the relationship between pandemic-related stress and goal progress. We further hypothesize that grit, belonging, and institutional compassion are negatively associated with pandemic-related stress among emerging adults potentially buffering the effect of stress on beliefs that they can achieve their goals (i.e., goal progress) during Spring of 2020.

Method

Participants

Participants were full-time, undergraduate students ages 18–24 recruited from across the United States using the online survey platform Qualtrics mid-June 2020, following IRB-approved protocols (IRB #20.337). Inclusion criteria were college/university students within the age range who followed "traditional" schooling trajectories (i.e., entered approximately after high school), were unmarried, and were not parents. Individuals whose primary language was not English were excluded.

The survey included a gender quota constraint (60% women, 40% men) to collect a nationally representative sample (within the United States) based on previously reported post-secondary traditional student gender demographic attributes (National Center for Education Statistics, 2020). Other demographic attributes did not appear to be as grossly skewed; thus, no quota constraints were included for race/ethnicity or parental level of education. The study aimed to explore the experiences of traditional emerging adult students pursuing higher education in the U.S. Screening questions were used to select emerging adult post-secondary students who followed "traditional" schooling trajectories (i.e., entered shortly after high school). Of the 282 responses collected, 24 were excluded during data control processes which eliminated straight-line responses, nonsense answers (e.g., "lliownosknn") on open-ended questions, and contraindications between screening questionnaires and quality check questions. The final sample was $N = 258$.

The geographically distributed participants were roughly distributed by class rank (25% 1st-year, 28.85% 2nd-year, 26.54% 3rd-year, 19.62% 4th year+), skewed by gender (60% women, 39.23% men), racially/ethnically diverse (18.46% Black/African American, 17.31% Asian, 10.77% Hispanic/Latino/a/x, 47.31% White/European American), and

socioeconomically diverse (18.8% parents high school degree or below, 24.2% parents 2-year degree or some college, 32.3% parents 4-year college degree, 24.6% parents post-baccalaureate (e.g., Master's, PhD, MD, JD). 56.9% of students lived in campus residential housing before the pandemic disruptions.

Measures

Participants completed a 15-minute online survey assessing perceived grit, belonging, institutional compassion, stress, and goal progress.

Grit. The Triarchic Model of Grit Scale (TMGS; Datu et al., 2017) is arguably more culturally sensitive than the more well-known GRIT-S scale (Duckworth & Quinn, 2009) and is designed for use among post-secondary students. The 10-item TMGS (α = .76) assesses Adaptability to Situation*s* (4 items; "Changes in life motivate me to work harder"), Consistency of Interest (3 items; "New ideas and projects sometimes distract me from previous ones" reverse-scored), and Perseverance of Effort (3 items; "I finish whatever I begin"). Items are rated on a Likert-type scale (1 = *not at all like me* to 5 = *very much like me*) and higher scores indicate higher grit, flexibility in goal pursuits, commitment to originally identified goals, and sustained goal pursuit regardless of hardship.

Belonging. The Sense of Belonging Scale (26 items, α = .92; Hoffman et al., 2002), developed for use among post-secondary students, assesses acceptance and value in classroom interactions with peers and faculty and personal and social interactions. Items were rated on a scale of 1–5 (1 = *completely untrue* to 5 = *completely true*); higher mean scores indicate stronger sense of belonging.

Perceptions of Institutional Compassion. Drawing from qualitative research on institutional compassion (Araújo et al., 2019), the Institutional Compassion Scale (15 items, α = .75; Schmahl, 2021, Appendix A) was developed to measure student perceptions of institutional responses to the pandemic. Participants were asked to rate items on a 1–5 Likert-type scale (1 = *not at all* to 5 = *extremely*). Seven items (α = .79) assessed the care/support students felt they received from campus personnel, administration, or campus policies (e.g., "Given the response of your college to COVID-19/coronavirus pandemic, please rate how much care for you as a human being do you feel from [campus personnel, e.g., faculty/instructors], and "…how much support do you feel in relation to the following: [e.g., grading policies]"); higher scores indicate greater perceived care/support from institutional representatives amid the pandemic disruptions. Eight items (α = .88) assessed how institutional resources were perceived to help diminish student challenges, (e.g., "Given the response of your college to COVID-19/coronavirus pandemic, please rate how much challenge you have personally experienced with each of the

following: [e.g., housing accommodations, access to technology]). These items were reverse-scored; higher scores indicate reduced student challenges due to a more compassionate institutional response.

A Principal Component Analysis (PCA) and Exploratory Factor Analyses (EFA) were conducted. The 15-item factor analysis yielded a two-factor structure: Factor 1 (Institutional Resources) with an eigenvalue of 4.24 accounted for 32.6% of the variance; Factor 2 (Institutional Care/Support) with an eigenvalue of 2.79 accounted for 21.4% of the variance. The 15-item two-factor component correlation, $r = -.11$, suggested the factors ($r < .32$) are independent.

Perceived Pandemic-Related Stress. The Stress Appraisal Measure assessed perceived stress resulting from significant life events or perceived external threat (28 items, α = .77; Peacock & Wong, 1990). To assess pandemic-related stress, the stem was modified to ask, "Please respond according to how you feel COVID-19/coronavirus pandemic affects you right NOW." Items (e.g., "This a totally hopeless situation"; "This situation creates tension in me") are rated on a 5-point Likert-type scale (1 = *Not at all* and 5 = *Extremely*) and higher mean scores indicate higher pandemic stress.

Perceived Goal Progress. The Goal Progress Scale (6 items, α = .80) modified items from Sheldon and Cooper's (2008) measure of student perception of progress toward goal attainment. Participants were asked to identify their most important short-term academic goal and long-term academic/career goal, then asked three parallel questions to assess their progress in each goal (e.g., "To what extent would you say that you achieved or accomplished this goal"). Responses were rated on a 5-point scale (1 = *Not at all*, 5 = *A great deal/completely*); higher scores represent greater perceived progress toward attainment of goals.

Results

IBM SPSS Statistics 27 was used for analyses. Descriptive analyses are found in Table 1. Bivariate correlations among the study variables (Table 1) and ANOVAs were used to examine group differences (Table 2).

Institutional compassion-overall was rated higher by White participants than Black ($p = .008$) and Latino/a/x participants ($p = .003$) and by those with higher parental education than those with a high school degree or below ($p = .030$). Perceived access to resources also differed by parental education (4-year+ vs. 2-year and 4-year degrees, $p = .045$ and .024, respectively). In addition, Latino/a/x participants perceived that they had less access to resources granted by the institution than Asian and White participants ($p = .043$ and .014, respectively). On the perceived care/support subscale, group differences by year in college were found:

Table 1. Bivariate Correlations Among Study Variables with Descriptive Statistics.

	M	SD	1	2	3	4	5	6	7	8	9
1. TMGS adaptability	3.80	.71	—								
2. TMGS consistency	3.10	.86	.094	—							
3. TMGS perseverance	3.93	.75	.542**	.313**	—						
4. TMGS overall	3.59	.56	.824**	.572**	.749**	—					
5. Belonging overall	3.39	.64	.430**	.120	.442**	.448**	—				
6. Goal progress	3.60	.78	.267**	.004	.302**	.242**	.309**	—			
7. ICS-overall	3.47	.62	−.080	.202**	.034	.052	.114	.049	—		
8. ICS-care/support	3.47	.76	.266**	.066	.268**	.271**	.364**	.301**	.450**	—	
9. ICS-response	3.48	1.04	−.255**	.184**	−.130*	−.111	−.101	−.134*	.829**	−.127*	—
10. Stress	2.98	.50	−.206**	−.379**	−.112	−.336**	−.234**	−.046	−.265**	−.218**	−.158*

Note: $*p < .05$, $**p < .01$

third-year students perceived less care/support than 2nd-year students ($p = .022$).

Grit-Adaptability was rated higher by Black participants than Asian and White participants ($p = .008$ and $.002$, respectively). This is particularly important as we chose the TMGS for its cross-cultural validity. Knowing that adaptability is associated with higher levels of academic self-efficacy and vocational/skill discovery and development (Datu et al., 2017), we sought to better understand the role of grit in academic and developmental outcomes for ethnic minority emerging adults who have been most disproportionately impacted by the pandemic (U.S. Department of Education, 2021). Thus, these findings suggest the importance of grit-adaptability for historically marginalized Black participants.

Students living on campus rated sense of belonging higher than students living off-campus and women were more likely to experience higher levels of stress.

Hypothesis Tests: Stress, Grit, and Belonging as Predictors of Goal Progress

Contrary to our hypothesis, pandemic-related stress did not predict emerging adults' (diminished) perceptions of goal progress, ($R^2 = .05$, $F(1,239) = .512$, $p = .475$). As there was no main effect of pandemic-related stress on goal progress, the hypothesis that grit and belonging would moderate the relationship between pandemic-related stress and goal progress was also rejected ($\Delta R^2 = .00$, $F(3,237) = .210$, $p = .618$ and $\Delta R^2 = .00$, $F(3,237) = .861$, $p = .323$, respectively).

Alternative Relationships

The failure to reject the null hypothesis and the unanticipated finding that pandemic-related stress did not have an overall negative impact on emerging adult students' perception of goal progress led us to further explore the relationships between pandemic-related stress, grit, belonging, and institutional compassion. In particular, we examined whether some individuals experienced the pandemic (and

thus, pandemic-related stress) differently than others. That is, if grit trait and belonging state predict goal progress ($R^2 = .06$, $F(1,239) = 14.837$, $p < .001$ and $R^2 = .10$, $F(1,239) = 25.271$, $p < .001$, respectively), might individuals with higher/lower grit and belonging experience pandemic stress differently?

Simple regression analyses (Table 3) revealed that perceived institutional care/support (ICS-care/support) and institutional resources (ICS-resource) predicted goal progress ($R^2 = .09$, $F(1,239) = 23.779$, $p < .001$ and $R^2 = .10$, $F(1,239) = 4.351$, $p = .038$, respectively). Stress and perceived institutional care/support ($p < .001$) significantly predicted components of the grit subscales. When stress increased, grit-adaptability decreased ($p < .001$) and grit-consistency decreased ($p < .01$). As ICS-care/support increased, so did grit-overall ($p < .001$), adaptability ($p < .001$) and perseverance ($p < .001$). Likewise, perceived ICS-care/support predicts increased grit-overall ($p < .001$), adaptability ($p < .001$), and perseverance ($p < .001$). Given that each predict goal progress (all $p < .001$), it may be inferred that student positive perceptions of institutional care/support buffers the adverse influences of stress for grit-adaptability and grit-perseverance, helping emerging adults to maintain positive perceptions of goal progress.

Similar benefits of institutional care/support are found in the relationship between stress and belonging. Stress and perceived institutional care/support significantly predicted belonging (both $p < .001$). Greater stress predicted decreased belonging ($p < .001$), but student positive perceptions of institutional care/support predicted increased belonging ($p < .001$). Given that residential students expressed a stronger sense of belonging, institutional care/support appears especially important in lessening the effects of pandemic-related stress for students living on campus.

Discussion

This study explored the influences of belonging, grit, and institutional compassion for emerging adult collegiate goal

Table 2. Summary of Analysis of Variance Results of Significant Group Differences on Study Variables by Sociodemographic Characteristics.

					Tukey	
	M	*SD*	*F*	*p*	*MD*	*Sig.*
Institutional compassion-overall[a]			3.53	.008		
Race/ethnicity			3.53	.008		
White/European American (*n* = 123)[b]	3.59	.61				
Black/African American (*n* = 48)	3.30	.59			.29**	.008
Hispanic/Latino/a/x (*n* = 27)	3.20	.66			.39**	.003
Parent level of education			3.27	.022		
Post-baccalaureate (*n* = 63)	3.67	.61				
High school degree or below (*n* = 48)	3.35	.60			.33*	.030
Institutional compassion-care/support[a]						
Year in college			3.39	.019		
Second year (*n* = 75)	3.65	.74				
Third year (*n* = 69)	3.29	.75			.36*	.022
Institutional compassion-resources[a]						
Race/ethnicity			3.99	.004		
Hispanic/Latino/a/x (*n* = 27)	2.96	1.10				
Asian (*n* = 44)	3.66	.97			−.70*	.043
White/European American (*n* = 123)	3.65	.98			−.69*	.014
Parent level of education			3.48	.016		
Post-baccalaureate (*n* = 63)	3.84	.94				
Two-year degree/some college (*n* = 63)	3.36	1.12			.48*	.045
Four-year degree (*n* = 84)	3.35	1.06			.49*	.024
TMGS-adaptability[a]						
Race/ethnicity			5.02	.001		
Black/African American (*n* = 48)	4.11	.64				
Asian (*n* = 44)	3.63	.70			.49**	.008
White/European American (*n* = 123)	3.67	.70			.44**	.002
Belonging[a,c]						
Housing			5.04	.026		
On-campus (*n* = 148)	3.47	.64				
Off-campus (*n* = 110)	3.29	.64				
Stress[a]						
Gender			3.07	.048		
Female (*n* = 155)	3.04	.48				
Male (*n* = 101)	2.89	.51			.16*	.040

Note. Tukey Post-Hoc paired comparisons *p < .05, **p < .01.
[a]Only significant group differences are reported here.
[b]The indented demographic variables were tested against the primary reference (not indented) demographic variable.
[c]Tukey's results are not reported for belonging on this table.

pursuits as they faced unparalleled stress due to the COVID-19 pandemic. Findings indicate that despite the disruption to their daily and academic lives during the onset of the pandemic, emerging adults perceived their goal pursuits to be unaffected and appeared to remain confident they would be able to fulfill their short- and long-term goals of being on track for graduation from higher education and getting a career of their choosing. Thus, it appears that in the context of stress from the pandemic during Spring of 2020, emerging adults continued to seek ways to fulfill their self-determined needs for autonomy, competence, and relatedness and that the compassion they perceived from their post-secondary institutions in the form of care/support and resources was helpful in this process.

Grit, Belonging, and Stress

Grit and belonging were associated with lower pandemic-related stress. And emerging adults with higher grit and stronger sense of belonging indicated more positive perceptions of their goal progress than those who did not. These

Table 3. Simple Regressions.

	Goal progress			
	R^2	B	Se B	β
TMGS	.06***	.34	.09	.24
TMGS-adaptability	.07***	.29	.07	.27
TMGS-Consistency	.00	.00	.06	.00
TMGS-perseverance	.09***	.32	.07	.30
Belonging	.10***	.37	.07	.31
Stress	.00	−.07	.10	−.05
Institutional compassion (overall)	.00	.06	.08	.05
Institutional-care/support	.09***	.31	.06	.30
Institutional-response	.02*	-.10	.05	-.13
Grit-overall				
Stress	.11***	−.38	.07	−.34
Institutional compassion (overall)	.00	.05	.06	.05
Institutional-care/support	.07***	.20	.04	.27
Institutional-response	.01	−.06	.03	−.11
Grit-adaptability				
Stress	.04**	−.30	.09	−.21
Institutional compassion (overall)	.00	−.09	.07	−.08
Institutional-care/support	.07***	.25	.06	.27
Institutional-response	.07***	−.18	.04	−.26
Grit-consistency				
Stress	.14***	−.66	.1	−.38
Institutional compassion (overall)	.04**	.28	.09	.20
Institutional-care/support	.00	.08	.07	.07
Institutional-response	.03**	.15	.05	.18
Grit-perseverance				
Stress	.13	−.17	.09	−.11
Institutional compassion (overall)	.00	.04	.08	.03
Institutional-care/support	.07***	.26	.06	.27
Institutional-response	.02*	−.09	.04	−.13
Belonging				
Stress	.06***	−.30	.08	−.23
Institutional Compassion (overall)	.01	.12	.06	.11
Institutional-care/support	.13***	.31	.05	.36
Institutional-response	.01	−.06	.04	−.10

*$p < .05$, **$p < .01$, and ***$p < .001$.

findings add to the literature on the usefulness of grit amid challenges, difficulties, adversity, and setbacks (Duckworth et al., 2007; Lee, 2017) and the potential importance of belonging during a major disruption of social systems such as those posed by the global pandemic. These findings are particularly important as we seek ways to support emerging adult collegiate pursuits—not just so they stay, but that they grow intellectually and socially as a result of staying (Tinto, 1987). In doing so, emerging adults satisfy their fundamental psychological needs for competence, relatedness, and autonomy (Deci & Ryan, 2000).

Despite being inversely associated with pandemic-related stress, belonging and grit were positively associated with goal progress suggesting that emerging adult students with more grit and higher sense of belonging may be more likely to maintain progress toward academic and career goals. The positive associations between institutional compassion (overall and subscales) and grit (overall and subscales) suggest that students who perceive greater institutional compassion may be more likely to maintain their grit amid disruptions to their academic and career pursuits. Furthermore, the positive association between institutional compassion—care/support and belonging suggests that emerging adult students who perceive greater compassion in the form of care/support (e.g., amended grading policies and/or financial considerations) may be more likely to sense greater belonging to the institution.

Diverse Impact of Grit and Institutional Compassion

The findings had unique implications for different groups of students, especially those in social groups found to be most negatively impacted by the pandemic. First, women in this study were more likely than men to experience pandemic-related stress, likely due to a multitude of increased risks and health disparities that impacted women early in the pandemic and that continue to this day (Connor et al., 2020). Moreover, collegiate women experience two primary sources of stress: academic activities necessary for future professional success and satisfactory social connections both casual and intimate (Larson, 2006). The pandemic exacerbated these stressors, presenting a very real threat to women's perceptions of successful academic goal pursuits necessary for long-term goal pursuits. Despite these gender disparities, our findings that student positive perceptions of institutional care–particularly in terms of the care/support conveyed by institutional officials–predicts higher grit underscores the important role that institutions can play in reducing the gendered impact of the COVID-19 pandemic.

Second, our findings reveal that Black/African American participants scored significantly higher on grit-adaptability than White and Asian American participants. Higher scores on adaptability resonates with the historical need to adjust more quickly to acute challenges faced by Black emerging adults in society and as students at predominantly white institutions. Furthermore, findings reveal that Black/African American and Hispanic/Latino/a/x participants perceived greater institutional compassion overall than their White counterparts. This is uniquely important as Black students, in particular, report negative experiences with institutions including: harsher grading practices, fewer challenging classes, less playing time in sports, and condescending communications (Volpe et al., 2020). Our results suggest that when institutions of higher education demonstrate caring support and provide greater access to resources, Black students may especially benefit, particularly given their already higher levels of grit (adaptability). Thus, intentional efforts to extend access to resources, provide support, and communicate with

attentiveness and care may help all students, but has a particularly impactful and encouraging effect on Black students in their goal pursuits. Consequently, these intentional efforts can increase the equity framework for pandemic management used by institutions, and ultimately benefit emerging adult development and success in attaining post-secondary goals.

In research on grit and on diverse students' academic and personal outcomes, greater attention to the personal strengths and assets of Black students, such as grit (adaptability in particular) and resilience, is warranted. Studies conducted after May 2020 might consider the ways that Black students drew upon grit in response to the dual pandemic they faced as protests over racism in policing swelled during that summer. Multiple sources of stress compounded by the pandemic are likely to take their toll differently for various groups and a cultural, historical analysis is warranted in future studies.

Institutional Responsibility in a Pandemic

Our results suggest that institutional compassion not only has a direct effect on student outcomes but also an indirect effect in helping to promote grit and sense of belonging. In Spring of 2020, the media was riddled with anecdotal accounts from students who had poor experiences with their institutions who may have provided few accommodations or support pertaining to housing, grading, and emergency remote learning. However, most students reported their institutions did a good or excellent job responding to the pandemic (69% as reported in McKenzie-Sutter, 2020). Now, 2 years into the pandemic, the phenomenon of "compassion fatigue" is widespread (Cordaro, 2020).

However, it seems there is institutional responsibility in addressing student needs in the ongoing COVID pandemic and in providing direct, tangible support to diminish stress for students. When addressing student stress, institutions often tout self-care and self-compassion, placing the burden on students to seek ways to minimize stress or at times, provide access for students to learn how to reduce their own stress. These responses are well-intentioned but may be perceived to deflect the responsibility to the students. Instead, organizations and their administrators, staff, and faculty can understand the importance of embracing compassion for students themselves and convey that through policy, practice (e.g., direct support such as financial relief), and communications with students.

Expanding the Measure of Grit

The importance of adaptability as a dimension of grit that is both predictive of developmental and academic outcomes and reflective of the experiences of ethnically diverse emerging adults merits future scholarly attention. This dimension of grit is relatively novel and captured due to the use of the Triarchic Model of Grit Scale (Datu et al., 2017) rather than the traditional Grit-S (Duckworth & Quinn, 2009) in this study. Our findings reify the ethnic and cultural group differences that informed the construction of the TMGS. These findings contribute to an expanding body of literature asserting that grit is not a stand-alone measure and instead, should be assessed in interaction with other factors such as identity and belonging (Verdín et al., 2018). Identity, belonging, and other psychosocial constructs impact persistence of effort, especially among historically minoritized students and/or first-generation post-secondary students. It is likely these factors also contribute to adaptability and together, these dimensions of grit seem to have greater predictive power than consistency of interest (Crede et al., 2017). As grit may be an important factor in self-determination, particularly as a way to fulfill autonomy needs, the expansion of grit in the context of other factors (e.g., belonging) and in the context of the ways diverse populations respond to actual stressors can strengthen its measurability and application across more diverse populations.

Limitations

While the results find emerging adults had a strong commitment to their goal pursuits, this may speak to the possibility that the pandemic was perceived as acute and temporary at its onset, given the timeframe of this study. Though in some post-secondary settings, this may not be the case. Studies of individual institutions, such as Arizona State University, found diminished expectations for graduation and career pursuits (Aucejo et al., 2020). And as the pandemic has worn on, studies done in a later time frame may find that short- and long-term goal pursuits have indeed been impacted more severely. Due to these changes in emerging adult perception, grit, belonging, and institutional compassion may be of even greater importance in supporting emerging adult development.

The instruments used for belonging, grit, stress, and institutional compassion require self-reporting which is known to be subject to social desirability bias. The Institutional Compassion Scale needs refinement to address content validity. Given that this is a newly developed scale, the questions need thorough review and revisions to verify that they accurately measure all facets of institutional compassion including both affective and behavioral dimensions of the construct. In exploring the data beyond our initial question of interest, we ran several secondary analyses expanding the number of variables and increasing the risk of Type I error. Continued examination of the variables of interest with a larger sample size may alleviate this concern. We also note that the long-term impact of pandemic-related stress on student goal progress is unknown and follow-up studies are needed to document the long-term benefits of belonging and grit in mitigating stress among emerging adults.

Finally, the effects of socioeconomic status (SES) were not assessed in this study. Emerging adult students who have greater personal resources such as financial savings or family support beyond federal or institutional aid may have been

differentially impacted by the pandemic. Future research may tease apart the confounding effects of SES and race/ethnicity on pandemic-related experiences. Grit and belonging seem to be equally important for individuals from low SES backgrounds (e.g., Huang & Hao, 2017), but our study is limited in its ability to generalize across SES.

Conclusion and Next Steps

Two implications are noteworthy both for future research and for supporting emerging adult development. First, we recommend additional research to investigate emerging adult grit, belonging, and institutional compassion in supporting goal pursuits over time. There are likely changes in the role of grit, belonging, and institutional compassion throughout emerging adult goal pursuits. The first-year adjustment to the post-secondary environment represents a critical time for emerging adults' satisfaction of belonging (Morrow & Ackermann, 2012) during which institutional compassion plays a significant role. Moreover, students' psychological grit may also contribute to emerging adult experiences in that first year. Further research to determine whether increases in both grit and belonging, or one over the other, precipitate the likelihood of goal attainment would add richness to the current literature. Additionally, exploring the influences of institutional compassion on student belonging may provide direction for leaders in higher education seeking to encourage students' intellectual and social growth (Hove, 2017; Tinto, 1987). A post-secondary institution can be as supportive as imaginable, but if a student continues to be low in grit or belonging, then there may be a plateau effect of institutional compassion over time. The findings that institutional compassion is positively associated with emerging adult students' grit and sense of belonging amid a global health crisis is noteworthy and merits further investigation. Emerging adults seek significant connections to others and need to feel they are valued during this critical developmental stage. Thus, we hope to see empirical studies investigating these issues, thus, adding to the literature deeper understandings of these factors that may support emerging adult development and the satisfaction of self-determined needs for autonomy, relatedness, and competency.

Second, while the current study confirmed that emerging adult sense of belonging and grit were positively associated with goal progress, a specific focus on the influence of these factors on emerging adults from minoritized populations is recommended. Previous research among post-secondary students from minoritized populations suggests that grit alone may not be sufficient (Kundu, 2017) and greater attention to the personal strengths and assets of minoritized students is warranted. While our results suggest that institutions demonstrating caring support and providing greater access to resources especially benefit Black students given their already higher levels of grit (adaptability), greater foci on

the experiences of emerging adults from minoritized populations will provide more comprehensive understandings of minoritized emerging adults' development of belonging and efforts to satisfy their fundamental needs for autonomy, relatedness, and competency amid supportive academic environments.

Appendix

Institutional Compassion Scale

The next set of questions ask about your perceptions of the impact of COVID-19/coronavirus pandemic on various aspects of your personal college experience.

Given the response of your college to COVID-19/coronavirus pandemic, please rate how much care for you as a human being do you feel from each of the following using the following scale:

1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Considerably, 5 = Extremely.

Faculty/instructors	1	2	3	4	5
Academic advisor	1	2	3	4	5
Coach/club advisor	1	2	3	4	5
Any other college representative, such as a mentor or other staff; please specify role (not person's name):_____	1	2	3	4	5

Given the response of your college to COVID-19/coronavirus pandemic, please rate how much support do you feel in relation to the following using the following scale:

1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Considerably, 5 = Extremely.

Campus communications	1	2	3	4	5
Grading policies	1	2	3	4	5
Financial Considerations	1	2	3	4	5

Given the response of your college to COVID-19/coronavirus pandemic, please rate how much challenge have you personally experienced with each of the following using the following scale:

1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Considerably, 5 = Extremely.

Access to technology or reliable internet	1	2	3	4	5
Housing accommodations	1	2	3	4	5
Access to physical spaces needed for your degree (e.g., art/music studio. Research lab, etc.)	1	2	3	4	5
Food/physical needs	1	2	3	4	5
Access to student involvement groups or student cultural centers	1	2	3	4	5
Financial needs	1	2	3	4	5
Access to physical and mental health resources	1	2	3	4	5
Other; please specify:_____	1	2	3	4	5

Declaration of Conflicting Interests

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Open Practices

The raw data and coding manuals used to analyze the data contained in this manuscript are not openly available due to privacy restrictions set forth by the institutional ethics board, but can be obtained from the corresponding author. No aspects of the study were pre-registered.

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