Investigating the Relationship Between Disability Status and Grit

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ABSTRACT. An established definition of the concept grit is a combination of resilience and stamina for long-term challenges. Although literature on grit has been vast in terms of linking this concept to success for nondisabled individuals, limited research exists for individuals with disabilities. The present study investigated the relationship between grit and disability status within the college population. We surveyed individuals with and without a registered disability at a university, using the Grit Scale to measure responses and later subdividing it into Consistency of Interest and Perseverance of Effort scales. We found a significant main effect, defining significant differences with p values < .05, between disability status with total Grit score. Another significant interaction was found when evaluating the relationship of disability and underrepresentation (e.g., Black Indigenous People of Color) on Grit and Consistency of Interest subscores. No significant differences were found within the Perseverance subcategory of Grit. These results indicate that individuals within the underrepresented category, or people of color, as well as students registered with a disability scored significantly lower than their White and nondisabled counterparts. Further investigation is needed for confirmation of results. Suggested future investigations include the relationships of grit with varying disability categories as well as with individuals making up the underrepresented ethnic group.

Keywords: grit, resilience, disability status

Success can be defined and understood as the accomplishment of widely varied goals (Duckworth et al., 2007). Two constructs that emerged as components of success are resilience and grit. Resilience, which underlies grit, focuses on the response an individual has to a setback or adversity (Runswick-Cole & Goodley, 2013). Grit has been understood as a continual persistence in the face of difficulty with the added component of stamina toward long-term goals (Duckworth et al., 2007). The two concepts of grit and resilience can vary based on situation and an individual’s interest. These entities are fluid and must be interpreted within various settings with caution and understanding, as experiences and interests can vary widely between individuals. Although two separate constructs, individuals are likely to exhibit both grit and resilience, as they are often applicable in the same scenarios (Mason, 2018).

Resilience has been heavily investigated in typically developing children, as well as individuals who could be considered disabled (e.g., specific learning disability, intellectual disability, physical disability, disabled geriatric population; Manning et al., 2014; Migerode et al., 2012; Panicker & Chelliah, 2015). Grit is a rather new construct but has had clear connections with success (Duckworth et al., 2007). Grit and resilience have been connected by Duckworth as overlapping constructs, and resilience has also been found to be connected to disability status (Perkins-Gough, 2013; Piers & Duquette, 2016). With this understanding, one can predict grit’s role for students with disabilities based on resilience research with students who
have disabilities. Although grit has been shown to be crucial to long-term success, adequate literature representation regarding grit in individuals with disabilities has been relatively sparse. This gap warrants attention in order to understand how to best serve individuals, with and without disabilities, in achieving success.

Resilience
To fully understand grit in the context of students with disabilities, one must first explore its precursor: resilience. Researchers have been interested in looking specifically at resilience, which may be a building block to success or the achievement of widely varying goals (Duckworth et al., 2007). Resilience has been associated with the terms of hardiness, mental toughness, and grit, all of which refer to the underlying themes of perseverance and commitment through adverse events. Resilience allows for a cognitive appraisal of adverse events to be interpreted as challenging growth opportunities rather than setbacks that one cannot overcome (January, 2016). Resilience research has focused on the environmental context of an individual functioning as inhibitory or aiding in development (Ungar, 2011).

Although most resilience research has been conducted with typically developing children, some researchers have investigated concepts in individuals with disabilities. Manning et al. (2014) investigated whether resilience acted as a barrier for disability in a population over the age of 50 years who were disabled through chronic illness. They found that resilience buffered against chronic disabilities and the formation of new disabilities. This study has allowed a greater understanding of how resilience might be predictive of positive outcomes, which is useful for a variety of populations. Campbell-Sills et al. (2006) found that high scores of resilience were related with high retrospective emotional neglect and a low incidence of current psychiatric symptoms. This indicates that resilience is not only surviving setbacks, but also learning to thrive from them.

Emerging resilience research focuses on individuals with disabilities (Martinez, 2016; Panicker & Chelliah, 2015; Piers & Duquette, 2016; Runswick-Cole & Goodley, 2013). Panicker and Chelliah (2016) studied the relationship between borderline intellectual functioning, specific learning disorders, and levels of resilience, along with stress level, depression, anxiety, and awareness among parents. The results indicated that around three-fourths of those surveyed with specific learning disorders had lower resilience compared to the individuals with the Diagnostic and Statistical Manual of Mental Disorders IV diagnosis of borderline intellectual functioning, suggesting fewer coping skills and resources (Panicker & Chelliah, 2016). Martinez (2016) also investigated the relationship between resilience and self-discipline in individuals with disability in visual, motor, auditory, and intellectual impairments. Results indicated that psychosocial support is imperative in order for a person to have higher levels of resilience (Martinez, 2016). All of these studies provide evidence for the importance of resources and support for those with disabilities and their relationships with resilience.

Grit
Researchers have shown interest in the concept of grit, specifically questioning why some individuals accomplish more than others of similar intelligence. Duckworth et al. (2007) operationalized the construct of grit to include persistence and passion for long-term goals. Since the initial research, this concept has piqued the general interest of investigators, leading to numerous studies over the basic concept of grit alone. Duckworth et al. (2007) initially investigated grit in West Point first-year cadets in the U.S. Military Academy and Scripps National Spelling Bee contestants. Through two separate studies, one being a validation study for the short Grit Scale (Grit-S), there was a similar conclusion: grit’s two-faceted definition of perseverance and determination toward long-term goals is significant in success (Duckworth & Quinn, 2009; Duckworth et al., 2007). These are introduced within two subscales of the Grit Scale: Consistency of Interest, which addresses changing one’s mind with interest and goals, and Perseverance of Effort, which addresses accomplishing goals over a period of time (Duckworth et al., 2007; Lombardi et al., 2019). Lombardi et al. (2019) investigated the components of the Grit scale in adolescents with and without disabilities, as defined by the Individuals with Disability Improvement Act for K–12 schooling and found that the measure functions comparatively in both populations, an important consideration for the current study. Specifically, Lombardi et al. (2019) found that perseverance and consistency of interests were negatively related, as well as enhanced for those with disabilities. Perseverance was of academic significance because it remained predictive of grade point average (GPA) for students with and without disabilities. These findings indicate that...
fluctuations in consistency of interest are normal and possibly even beneficial for individuals with or without disabilities on the act of perseverance. Lombardi et al. (2019) emphasized the importance of further understanding grit and its components for students with disabilities as they transition to and participate in college curriculum. As the initial inquiry pointed out, grit has been found to have no correlation with IQ measurements (Duckworth & Quinn, 2009; Ivecvic & Brackett, 2014).

Grit has been investigated in high school retention rates, with findings indicating a strong correlation with academic conscientiousness (e.g., self-disciplined, responsible, striving for achievements) and motivation in school (Eskreis-Winkler et al., 2014). In relation to academic success, often defined through GPA and/or degree completion, grit has been found to strongly correlate with orientation for the future, hence the focus on long-term goals as a component in grit (Fleming et al., 2017; Muenks et al., 2017). With regard to the Big Five Personality Model, grit has been identified to overlap with conscientiousness, but with a greater emphasis on stamina of long-term goals (Duckworth et al., 2007). This connection is of great importance because conscientiousness has also been identified as a predictor in academic performance (Poropat, 2009). Eskreis-Winkler et al. (2014) also found the importance of grit within high school students; students with higher grit were more likely to graduate the following year. Although these results indicate that grit is important, Jachimowics et al. (2018) suggested the inclusion of passion for the predictive performance of grit to be fully understood and accurate. When investigating the topic, they found that grit’s predictive power can be fully understood and correctly utilized when combining and considering perseverance and passion.

There has also been research regarding grit in areas outside of academia such as the workplace, relational aspects, military, and others. Duckworth et al. (2007) initially began this inquiry with West Point Military cadets, where they found grit to be a predictor of later success in lasting in the program. Eskreis-Winkler et al. (2014) echoed these findings in two separate studies regarding military personnel. Within the populations of the Army Special Operations Forces course participants and those who competed in an elite military selection program, researchers found that grit was significant when controlling for other factors and did not correlate with physical fitness or intelligence (Eskreis-Winkler et al., 2014). Within the same study, researchers found grit to be correlated with retention in sales occupations and men’s likelihood of remaining married (Eskreis-Winkler et al., 2014). Grit was also analyzed within the population of stroke survivors and caregivers; results indicated that this population embodies higher levels of grit, specifically with articulation of long-term goals (Klappa et al., 2020). Grit has been readily noticed in recent years as an important trait influencing the success of individuals’ lives, as demonstrated through the mentioned literature.

Grit and Resilience
The constructs of resilience and grit have been heavily investigated in the past decade, especially in regard to academic performance. Not much literature has established a connection between the two constructs. January (2016) compared the separate constructs, identifying that there is an underlying theme of perseverance, commitment, coping, goal orientation, discipline, and determination in both grit and resilience. Prior to an interview with Duckworth, the primary author of the original grit study, there was no formalized discussion as to the connection other than themes between the two subjects. Duckworth acknowledged that resilience is a component of grit, but grit is not always a factor in resilience (Perkins-Gough, 2013). Resilience, as previously stated, is the ability to persevere and bounce back from adversity or life difficulties, whereas grit, on the other hand, has this same component of persistence through difficulties, with an added component of stamina toward long-term goals (Duckworth et al., 2007; Runwick-Cole & Goodley, 2013). There has also been an identification in the overlap of grit and resilience through their relationship with conscientiousness. Both grit and resilience have been found to be positively correlated with conscientiousness, indicating an ability to recover quickly and continue past adversities that may come in an individual’s way (Campbell-Sills et al., 2006; Duckworth et al., 2007; Oshio et al., 2018). Although differences lie within the two concepts, grit and resilience remain similar through the fundamental aspect of perseverance toward goals and continuation despite setbacks (Duckworth et al., 2007). This ties these two related constructs together.

Grit has been measured mostly within the nondisabled population through the 12- or 8-item survey first developed, whereas resilience, a closely related concept, has been measured heavily in the
Students With Disability and Success

Though disability status might add complexity and difficulty to academic ventures, it is imperative to recognize that success and disability are not dichotomous variables. As previously mentioned, academic success has been typically defined as GPA or degree completion; traditional literature suggests that individuals with disabilities are less successful in attaining academic success in comparison to students without disabilities (Fleming et al., 2017). Theories regarding difficulty with success point to lack of knowledge regarding services and obtaining of services in the college setting with possible deficits in self-advocacy, increased hesitancy due to stigmatization, and poor experiences or attitudes from faculty (De Los Santos et al., 2019; Fleming et al., 2017; Marsh & Wilcoxon, 2016; Wessel et al., 2009). Although Wessel et al. (2009) reported no difference within retention rate of those with disabilities, research has continued to emphasize the importance of self-advocacy as a point of intervention for individuals with disabilities in higher education (Fleming et al., 2017). Therefore, it is important to consider the avenues educators and university personnel may use to influence change within this population in hopes of promoting academic success. Academic success often leads to positive outcomes financially and occupationally (Fleming et al., 2017). The present investigation continues to build on this literature of success and adds to the discussion of grit as a possibility of using this fluid entity within the population of students with disabilities.

The Present Study

Research has established that resilience and grit are closely related but that the construct of grit is more specific and has been established as a predictor for academic success in nondisabled individuals. The current investigation sought to address the relationship between disability status and grit. Previous literature has indicated that students with disabilities who choose to pursue higher education experience challenges in many areas such as transition plans, self-advocacy, disclosure status, and accommodations (Algozzine et al., 2001; Landmark & Zhang, 2012). These challenges help bring forth the question to investigate grit and its relationship to academics for later consideration of grit as a factor of success. This helps future populations consider if grit should be invested in as a factor of success.

Little research has investigated the relationship of grit and disability status; however, some literature has established a relationship between disability status and resilience, a closely related construct. Piers and Duquette (2016) investigated resilience in individuals identified with learning disability; research indicated that, with appropriate environmental supports, resilience can facilitate academic and mental development in a positive manner, moderating the impact of the learning disorder. Resilience and social support have also been identified as protective factors (Rutter, 1987). Campbell-Sills et al. (2006) found resilience to be a protective factor against later psychiatric symptoms for those who experienced early emotional neglect. As mentioned, Lombardi et al. (2019) completed research that demonstrated that students with and without disabilities faired evenly on the score of overall grit. They also found consistency of interest and perseverance to be inversely related, demonstrating that changing interests could be interpreted as a good thing for all students, especially those with disabilities, to experience during their development in high school.

Resilience has also been shown to be a positive buffer against negative life events, even in individuals with disabilities who may face greater and more frequent obstacles. Individuals with a disability at a university, therefore, are likely to have some baseline level of grit. They are engaging in perseverance in pursuing higher education and stamina to reach a long-term goal of graduation. As such, our hypothesis was that grit would be significantly higher in those with a disability, measured through registration with the Office of Disability Services, compared to those without a disability. Understanding grit’s role in the context of disabilities will help fill a gap in the existing literature and may help practitioners develop interventions that support grit within this population.
Method

Participants

Data was collected at Tarleton State University, a midsized state university in the central United States. Of the 291 individuals (aged 18–59, $M = 23.33, SD = 7.74$) who completed the survey, 279 students were included in the analysis, as they met the inclusion criteria for current enrollment at a college or university as well as the minimum age of 18 years old. Of the 279 individuals, 147 (52.69%) were registered with disability services on their campus, resulting in an evenly distributed sample between the two comparison groups. The participants were asked to check “yes” or “no” regarding their disability status registration with the Office of Disability Services with no confirmation of answer in order to ensure confidentiality. Although the proportion of participants who indicated a disability was not reflective of the university community from which the sample was drawn, it allowed researchers to gather more information regarding the experience and characteristics of students with disabilities. Participants were overrepresented by women ($n = 221$), with only 58 men representing the participant sample. The racial/ethnic distribution of individuals was slanted toward White individuals ($n = 209$), followed by Hispanic/Latino individuals ($n = 34$), African Americans ($n = 16$), Other ($n = 9$), Native Americans ($n = 6$), Pacific Islanders ($n = 4$), and Asian Americans ($n = 1$). This distribution was reflective of the university where data was collected.

Materials and Procedures

Prior to the administration of the survey and data collection, approval was received from the university’s institutional review board. Emails were also sent out through the Office for Disability Services to all individuals registered with a disability on the university campus. The survey was also sent out to courses with a requirement for research participation as well as posted on the university’s research survey system. After the initial distribution of emails, we also used snowballing techniques to reach out to other individuals on campus to spread the survey and encourage a higher sample size. Responses on the 8-item Short form of the Grit Scale (Grit-S; Duckworth & Quinn, 2009) as well as demographic information were collected from all participants. Within the demographics survey, individuals were asked if they were a student, if they were registered with a disability with the Office for Disability Services, their age, race, and gender.

### Table 1: Grit Scores According to Demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>$M$ (SD) of Total Grit Score</th>
<th>Consistency of Interest $M$ (SD)</th>
<th>Perseverance $M$ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>3.42 (0.59)</td>
<td>2.85 (0.84)</td>
<td>3.99 (0.61)</td>
</tr>
<tr>
<td>Underrepresented category</td>
<td>3.55 (0.58)</td>
<td>3.01 (0.82)</td>
<td>4.09 (0.52)</td>
</tr>
<tr>
<td>Women</td>
<td>3.45 (0.62)</td>
<td>2.92 (0.86)</td>
<td>3.97 (0.65)</td>
</tr>
<tr>
<td>Men</td>
<td>3.33 (0.57)</td>
<td>2.69 (0.81)</td>
<td>3.99 (0.55)</td>
</tr>
<tr>
<td>Registered with a disability</td>
<td>3.40 (0.60)</td>
<td>2.76 (0.90)</td>
<td>4.04 (0.57)</td>
</tr>
<tr>
<td>Not Registered with a disability</td>
<td>3.45 (0.62)</td>
<td>2.99 (0.79)</td>
<td>3.90 (0.68)</td>
</tr>
</tbody>
</table>

Note. The racial categories of Hispanic/Latino, Black/African American, Asian American, American Indian/Alaskan Native, Pacific Islander/Native Hawaiian, and Other have been collapsed into the category of underrepresented.

### Table 2: Full Grit Scale ANOVA

<table>
<thead>
<tr>
<th>Predictor</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability</td>
<td>1</td>
<td>4.26</td>
<td>.04</td>
<td>.02</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>0.18</td>
<td>.67</td>
<td>.00</td>
</tr>
<tr>
<td>Underrepresented</td>
<td>1</td>
<td>0.34</td>
<td>.56</td>
<td>.00</td>
</tr>
<tr>
<td>Disability x Gender</td>
<td>1</td>
<td>0.66</td>
<td>.42</td>
<td>.00</td>
</tr>
<tr>
<td>Disability x Underrepresented</td>
<td>1</td>
<td>4.97</td>
<td>.03</td>
<td>.00</td>
</tr>
<tr>
<td>Gender x Underrepresented</td>
<td>1</td>
<td>0.62</td>
<td>.43</td>
<td>.02</td>
</tr>
<tr>
<td>Disability x Gender x Underrepresented</td>
<td>1</td>
<td>0.03</td>
<td>.86</td>
<td>.00</td>
</tr>
</tbody>
</table>

Residual: 269

Note. The racial categories of Hispanic/Latino, Black/African American, Asian American, American Indian/Alaskan Native, Pacific Islander/Native Hawaiian, and Other have been collapsed into the category of underrepresented.
The Grit-S asks participants to rate items from *Not at all like me* to *Very much like me*, on a 5-point scale model. Developed from the original Duckworth et al. (2007) study, the Grit-S was developed by shortening the original 12-question survey to 8 questions (Duckworth & Quinn, 2009). The Grit-S includes two subscales: Perseverance ($\alpha = .64$) and Consistency of Interests ($\alpha = .78$). Perseverance questions are worded positively, whereas Consistency of Interests questions are worded negatively, and therefore reverse-scored as specific to the Grit-S measure. The points were all added up and divided by 8 for the average score, with the maximum score being a 5 (i.e., indicating high Grit) and a minimum score of 1 (i.e., indicating low Grit). The data gathered was then analyzed utilizing the computer system JASP. Due to the relative lack of diversity in the sample, ethnicity was transformed into a dichotomous variable indicating whether or not a participant was a member of an underrepresented group (i.e., non-White) group. A 2 (disability status) x 2 (gender) x 2 (underrepresentation) analysis of variance was conducted on the overall Grit score as well as the Perseverance and Consistency of Interests subscales.

**Results**

All 279 participants provided full demographic data and completed the survey in its entirety, so there was no missing data. Table 1 indicates Grit scores according to demographic factors including gender, disability status, and race. An inspection of z scores revealed that there were no data points beyond 3 standard deviations from the mean Grit score ($M = 3.42, SD = 0.61$); therefore, no outliers were removed.

There was a significant main effect of disability status on Grit, $F(1, 269) = 4.26, p = .04, \eta^2 = .02$; students with disabilities had lower grit scores ($M = 3.40$) than their peers without registration at the Office of Disability Services ($M = 3.45$). There was no significant main effect of underrepresentation membership, $F(1, 269) = 0.54, p = .56, \eta^2 = .00$, or gender, $F(1, 269) = 0.18, p = .67, \eta^2 = .00$. There was a significant interaction, $F(1, 269) = 4.97, p = .03, \eta^2 = .02$, (see Figure 1) for disability status and underrepresentation, with those who were members of both groups having significantly lower Grit scores ($M = 3.24, SD = 0.53$) than White students with disabilities ($M = 3.45, SD = 0.62$). These results are summarized in Table 2.

On the Perseverance subscale, no significant main effects (see Table 3) were found for disability

<table>
<thead>
<tr>
<th>TABLE 3</th>
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<tbody>
<tr>
<td><strong>Perseverance Subscale ANOVA</strong></td>
</tr>
<tr>
<td>Predictor</td>
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<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Disability</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Underrepresented</td>
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<td>Disability x Gender</td>
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<tr>
<td>Gender x Underrepresented</td>
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<tr>
<td>Disability x Gender x Underrepresented</td>
</tr>
<tr>
<td>Residual</td>
</tr>
</tbody>
</table>

Note: The racial categories of Hispanic/Latino, Black/African American, Asian American, American Indian/Alaskan Native, Pacific Islander/Native Hawaiian, and Other have been collapsed into the category of underrepresented.

**FIGURE 2**

Perseverance of Effort

Note: Significant interaction of disability and underrepresentation on the full-scale grit score.

Scores as indicated; White and disability ($M = 4.02$), White and no disability ($M = 3.95$), Underrepresented and disability ($M = 4.16$), and Underrepresented and no disability ($M = 4.00$)

<table>
<thead>
<tr>
<th>TABLE 4</th>
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<tbody>
<tr>
<td><strong>Consistency of Interest Subscale ANOVA</strong></td>
</tr>
<tr>
<td>Predictor</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Disability</td>
</tr>
<tr>
<td>Gender</td>
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<tr>
<td>Underrepresented</td>
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<tr>
<td>Disability x Gender</td>
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<td>Disability x Underrepresented</td>
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<tr>
<td>Gender x Underrepresented</td>
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<tr>
<td>Disability x Gender x Underrepresented</td>
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<tr>
<td>Residual</td>
</tr>
</tbody>
</table>

Note: The racial categories of Hispanic/Latino, Black/African American, Asian American, American Indian/Alaskan Native, Pacific Islander/Native Hawaiian, and Other have been collapsed into the category of underrepresented.
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status, $F(1, 269) = 0.27, p = .61, \eta^2 = .00$, underrepresentation, $F(1, 269) = 0.01, p = .93, \eta^2 = .00$, or gender, $F(1, 269) = 0.60, p = .44, \eta^2 = .00$. There was also no significant interaction. See Table 1 for the Perseverance scores based on demographics and Figure 2.

The results of the analysis of the Consistency of Interest subscale are consistent with the overall Grit scores. There was a significant main effect (see Table 4) for disability status, $F(1, 269) = 6.70, p = .01, \eta^2 = .02$; students with disabilities had lower Consistency of Interest scores ($M = 2.75, SD = 0.90$) than those without ($M = 3.00, SD = 0.80$). There was also a significant interaction (see Figure 3) for disability status and underrepresentation, $F(1, 269) = 5.23, p = .02, \eta^2 = .02$, with participants who had a disability and were members of an underrepresented group having lower scores ($M = 2.56, SD = 0.80$) than students with disabilities who were not a member of an underrepresented group ($M = 2.99, SD = 0.80$). See Table 1 for the Consistency of Interest scores based on demographics.

**Discussion**

This study investigated grit in college students with and without an identified disability, as indicated by registration with the Office of Disability Services. Analysis of variance indicated that, for White students, Grit scores did not differ based on operationalized disability status. However, when exclusively interpreting Grit scores in the underrepresented category, scores were lower for those who were registered with a disability compared to those who did not have a disability. Although not a significant finding, mean differences were found (see Table 1). Grit scores were found to be higher in those in the underrepresented category compared to the White category, for those with and without disabilities. This should be further researched to understand this trend of increased grit for those within the underrepresented category. These findings indicate that disability status and complex factors, such as race, contribute to grit. Analysis of subscores revealed no significant differences between groups on Perseverance of Effort, but scores on Consistency of Interest mirrored overall Grit scores.

Underrepresented students with identified disabilities showed no difference in Perseverance of Effort. Although mean differences appear large, it is hypothesized that Perseverance of Effort scores might be better analyzed through the median. With no significant difference in Perseverance of Effort, Consistency of Interest can be seen as the primary area of consideration. Although Perseverance has been identified as a significant predictor of GPA and extracurricular activities, Consistency of Interest has been identified as a predictor of adult career changes (Duckworth & Quinn, 2009), but not goal accomplishment or overall achievement (Lombardi et al., 2019).

Although Consistency of Interest may not be predictive of goal achievement or success measures, it may be a noncognitive factor that could be improved through direct instruction or career exploration, and students may benefit from enriched career development activities facilitated through Disability Service Offices and other offices on college campuses including but not limited to, specialized first-year experience courses and career counseling. This finding can be utilized for further investigation of career development exploration and Consistency of Interest scores for individuals with disabilities and without disabilities. Individual assessments would be easy to add to intake paperwork for Disability Service Offices and may provide direction in working with students with disabilities. Further, the finding that students within the underrepresented category with disabilities have lower Grit scores than White students with disabilities underscores the need for additional research on the interaction between disability and minority status. It also indicates a possible need for intervention to support those represented within the disability and underrepresented category.

Limitations of this study include the snowballing
technique, which likely skewed information, passing information to other individuals similar to themselves. In other words, it might have gathered more individuals with higher grit than typically representative of the population. Other limitations include the demographic representation of the university, which is over-represented by White people and women. Another important limitation to note is the possibility of undetected disability status. An individual might not have been informed regarding their rights as a student with disabilities after the transition to higher education, which could classify them incorrectly. Additionally, this study used only the dichotomous variable of disability (yes or no), which did not allow for the exploration of the potential variance among individuals with disabilities. Initially, the researchers only considered a dichotomous variable of disability registration, but new research has suggested perceptible differences of individuals with varying disabilities (e.g., cognitive, psychiatric, physical; Akin & Huang, 2019). These differences might contribute to one’s experience and self-disclosure with the Office of Disability Services and might lead to further information regarding differences in persistence or perspective within college.

With significant findings regarding grit and disability, more research replications are needed to confirm the relationship. This is imperative considering that additional literature was identified after the conclusion of the study. The literature indicated a lack of differences with persistence in graduation rates between students with and without disabilities (Herbert et al., 2014). Future studies should consider investigation of disability status in concepts related to growth and success (e.g., mindset) to further understand how disability status shapes the way one interacts and views success. Future directions should consider whether students with disabilities are differentially responsive to grit improving interventions as compared to the general population, possibly indicating a treatment-approach difference rather than the baseline presented. Future studies should also take into consideration Jachimowicz’s et al. (2018) study that found passion to be a large factor of grit’s predictability, which was not exclusively considered within the present study. Future research is needed to clarify and further investigate the main effects for disability status with grit and consistency of interest between the underrepresented and White categories, as this interpretation must be taken with caution. Further investigation should consider types of disability, the extent to which a disability is visible, and whether or not participants are receiving academic accommodations. Lastly, future studies should continue to look at grit in individuals within the underrepresented category alone as well as with disabilities because there is a considerable lack of literature in this area.

The present study offers a new perspective and consideration when working with students who are registered with a disability and within the underrepresented racial groups. Research should continue to expand upon this study in order to support these individuals in achieving their highest levels within academia with or without interventional supports. Future research will help to clarify the factors associated with success in order to implement change and develop effective interventions that contribute to success for all students.

References


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